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CURRENCY BOARD FINANCIAL STATEMENTS

Currency Board Working Paper

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Johns Hopkins Institute for Applied Economics,
Global Health, and Study of Business Enterprise
&
Center for Financial Stability



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Currency Board Financial Statements

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By Nicholas Krus and Kurt Schuler

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About the series

The Studies in Applied Economics of the Institute for Applied Economics, Global Health and the Study of Business Enterprise are under the general direction of Professor Steve H. Hanke, co-director of the Institute (hanke@jhu.edu). This study is one in a series on currency boards for the Institute's Currency Board Project. The series will fill gaps in the history, statistics, and scholarship of currency boards.

This study is issued jointly with the Center for Financial Stability. The main summary data series will eventually be available in the Center's Historical Financial Statistics data set.

About the authors

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The views here do not necessarily reflect those of our institutions.

Summary

This paper and its accompanying spreadsheets are background material for a forthcoming book on currency boards by Steve H. Hanke, Nicholas Krus, and Kurt Schuler. The spreadsheets digitize financial data on individual currency boards. The data come mainly from the annual reports of currency boards; periodic financial statements in government gazettes; and the annual reports of British colonies, where currency boards were most prevalent. The paper explains how we standardized the financial data and offers facts necessary for a better understanding of the financial statements. We will update the paper as we accumulate further data or comments.

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III. Spreadsheets (in accompanying folder or files)

Workbooks on the currency boards, plus a summary workbook for currency in circulation. Some workbooks will not appear until later.

I. DESCRIPTION OF THE FORMAT FOR THE COUNTRY SUMMARIES

Introduction

This is a background paper for a book project on currency boards by Steve H. Hanke, Nicholas Krus, and Kurt Schuler. You need not read the paper to understand the book (which, as of 2014, is still being written). The paper, although dense and dry, is important because it contains facts necessary for a better understanding of the currency board financial statements that underlie some of the analysis in the book. Accompanying spreadsheets contain the raw data for individual currency boards and show how we standardized the data.

The paper is based mainly on primary source material, especially annual reports, higher-frequency financial data from government gazettes, and laws. We searched libraries in the United States, England, and Australia, as well as the Internet and online databases, and made digital photographs or other digital copies for a permanent record of the source material. Material that is out of copyright is posted on the Web site of the Institute for Applied Economics and the Study of Business Enterprise at Johns Hopkins University, under the heading “Digital Archive on Currency Boards.” Material still in copyright is on file at the Institute, available for researchers to consult under appropriate restrictions. Rahee Jung and Demilade Obayomi, two Johns Hopkins University students at the time, compiled the “Guide to the Digital Archive on Currency Boards” that appears in the Institute’s working paper series.

Large currency boards published annual reports. Each annual report typically contains a brief narrative on the workings of the board; a balance sheet; a statement of income and expenditure; details about notes and coins in circulation, such as a breakdown of circulation by denomination; and, for many boards up through the 1960s, a list of the securities the board held as assets. Some reports also show subsidiary financial accounts with further details on assets, liabilities, income, and expenditures. Before the 1990s, currency board reports rarely included statistics of the financial sector more generally, and since this paper is concerned with the operation of the boards themselves, we usually say little about statistics of the wider financial sector.

Small currency boards often limited their disclosure to a balance sheet published in the government gazette without a statement of income and expenditure or an accompanying narrative.

Large and small currency boards alike also often published abbreviated financial statements in the gazettes monthly to semiannually. The abbreviated statements typically listed only the major headings in the balance sheet. We and obtained data from many government gazettes, but are still missing some data. The other major source of data for the boards that published no annual report was the annual colonial reports of British colonies. Some annual colonial reports entirely omitted data on currency board finances; others published only the amount of the note circulation and the reserve; and a few published what were in effect abbreviated balance sheets and statements of income and expenditure. Typically, data can be found in the sections of the reports discussing government finances; currency and banking; or the assets and liabilities of the colonial governments, where currency in circulation and currency board reserve funds sometimes appear as line items. Some colonies and countries also published official yearbooks or statistical abstracts, and almost all British colonies published annual statistical summaries known as Blue Books. We made use of them in some cases.

From considerations of time, cost, and efficiency, we have limited our search to published material except in a small number of cases where it yielded very little data. For many currency boards, archives may contain unpublished data. The British National Archives would be the place to start for researchers interested in gathering unpublished data for many countries. The Bank of England archives also have many files related to currency board systems.

To enable statistical analysis of data on currency boards, we have digitized and standardized data from their annual financial statements and, in many cases, from more frequent data they published on select items. The resulting spreadsheets generated from the source material are available on the Web site of the Institute for Applied Economics and the Study of Business Enterprise. At least some of the data

will also be available in the Historical Financial Statistics database at the Center for Financial Stability, which Kurt Schuler edits, <http://www.centerforfinancialstability.org/hfs.php>.

Nicholas Krus did by far the greatest share of the work collecting the source material and digitizing it. The task was large, though, and we had help from many other researchers, listed on the cover page. Almost all were Johns Hopkins University students, or research interns of the Institute for Applied Economics, Global Health and the Study of Business Enterprise, under the supervision of Steve H. Hanke.

For completeness, some of our spreadsheets and notes cover the monetary authorities concerned even for years when they did not behave as currency boards. We have entered into the spreadsheets almost all the data in balance sheets and income-expenditure statements. The only significant exceptions are that we have typically not reproduced the lists many currency boards printed of the individual securities they held as assets and of the details by denomination of their currency issues. We have also entered additional data found in the reports that was useful for our inquiry.

As will be apparent, some material still requires final confirmation, and many gaps in data remain. We welcome the help of readers.

For further narrative details about many of the monetary systems discussed here and others, see the tables of monetary history at Kurt Schuler's forthcoming personal page on the Center for Financial Stability Web site.

Criteria for inclusion

We define orthodox currency board systems as those that meet the following criteria:

1. A constant nominal exchange rate with an anchor currency, defined as a spread between buying and selling rates of not more than 2% (+/-1% around the central rate).
2. No exchange controls with the anchor currency.
3. A foreign reserve requirement of 100% at least at the margin, and more typically against all its monetary liabilities (notes; coins, if issued by the currency board rather than by the government treasury; and deposits, if any).
4. No local organization other than the currency board issues or controls the issue of notes or deposits constituting part of the monetary base. Where the finance department rather than currency board issues fiduciary coins (those whose value as metal is less than their face value) constituting part of the monetary base, coins must be issued according to perceived market demand and not according to intentionally discretionary procedures. In some cases commercial banks have issued notes not constituting part of the monetary base alongside currency board notes, although most currency boards have had monopolies of note issue.

In combination, the criteria imply that monetary policy in an orthodox currency board system is rule-bound rather than discretionary.

This paper includes all the orthodox currency boards we have found. It also includes some other monetary systems that have had strong currency board elements but are not orthodox, typically because they allow substantial discretion in monetary policy. We term such systems quasi currency boards or currency board-like systems. We omit still other monetary systems: for instance, Panama and Ecuador use U.S. dollar notes as official currency but issue their own coins and hold 100% reserves against coins in circulation. Because the value of coins in circulation is so much lower than the value of notes in circulation, everyone, including us, classifies Panama and Ecuador as dollarized systems rather than as currency boards. Similar considerations apply for monetary systems where some notes were issued under orthodox currency board rules but did not constitute the most important element of the note circulation.

Spreadsheet files

The spreadsheet files containing the data from the financial statements use the following common format.

1. *Intro*: A table of contents sheet.
2. *Raw data — main (or annual)*: Annual data as they were originally transcribed from the annual financial statements. The organization of the items within the financial statements reflects what was most convenient for the transcriber, which typically means ordering the data as in the original, even if doing so differs from current conventions. Usually items in the raw data correspond one-for-one with items in the original financial statements, but occasionally we combine two or more similar minor items. We also sometimes omit subentries—entries that the financial statement shows as part of larger entries. There is no difference between items that are entered with zeros and those that show blanks. We omit detailed figures for currency in circulation by denomination or long lists of individual securities held, and compile only the summary figures. For securities, though, we do note domestic securities held, if the information is available.
3. *Raw data — more (or monthly, high frequency, etc.)*: Raw data not part of the annual financial statements, such as higher-frequency data on key balance sheet items.
4. *Mapping*: Contains two parts. The first part, at the bottom of the sheet, shows the raw data, organized and containing minor changes for easier comprehension. We rearrange the placement of accounts on the page to group similar accounts together and present them in a more or less uniform order. We always show the balance sheet or balance sheet-like accounts first; then the statement of income and expenditure; then various subaccounts, usually starting with the profit and loss account. In the Mapping sheet, we always place assets above liabilities, income above expenditures, and credits above debits, whereas in the original financial statements, hence in the Raw Data sheet, the order may be reversed. We also decimalize the data if the original financial statements used a nondecimal currency system.

The second part of the spreadsheet, the mapping itself, is at the top of the sheet. It shows how we transformed the raw data into our standardized format. The mapping applies to the balance sheet (assets and liabilities) and the income/expenditure statement only. It excludes items in various subsidiary accounts whose results are already incorporated into the balance sheet or the income/expenditure statement. Where the original balance sheets do not directly state note and coin circulation, we take that information from other parts of the original financial statements.

5. *Standardized data*: A standardized balance sheet that follows approximately the categories of the International Monetary Fund's *International Financial Statistics* database, plus a standardized statement of income and expenditure. The purpose of the standardized data is to make comprehension easier and analysis more effective. Includes an analysis of certain common ratios.

Original formats of currency board financial statement

Readers interested in viewing the original financial statements of the older currency boards we list, or the spreadsheet transcriptions we have made of their financial statements, will find it easier to understand them by keeping a few salient points in mind.

Within the British Empire, most local currencies were fixed to the pound sterling and most currency boards held a large share or all of their securities in London. Many balance sheets included lists of the specific securities that currency boards held. The values were listed in pounds sterling, which is important to remember in cases where the local currency did not have a one-to-one exchange rate with sterling.

In older currency board financial statements, the balance sheet and the income and expenditure statement typically list liabilities or expenditures first (on the left or at the top), the opposite of current practice.

For a few decades up through World War II, some British colonial currency boards published an “estimated general position” as well as a balance sheet. The estimated general position typically evaluated assets at market value rather than at cost, and included some other minor items that made it modestly more inclusive than the old-style balance sheet. Then there was apparently a change in accounting practices and we infer that balance sheet ceased to differ from the estimated general position. Currency boards that had published an estimated general position ceased doing so.

All currency boards issued notes, but not all issued coins. Where currency boards did not issue coins, the local government did or, for some British colonies, people used British coins. Among currency boards that issued coins, some separated assets backing notes from assets backing coins. A reason for doing so was that silver coins, unlike notes, had substantial commodity value. Currency boards often only had to back with foreign assets the difference between the commodity value and the face value of silver coins. Another reason for separating assets backing coins was that where the anchor currency was gold-based, fluctuations in the exchange rate between silver and gold created changes in the percentage backing for silver coins from the coins themselves, something not true of notes.

British colonial currency boards that had unified backing for notes and coins typically divided their assets into two or three groups. One was the coin and bullion backing currency in circulation—gold if the anchor currency was gold-based, silver if it was silver-based. Until the early 20th century, many British colonial currency boards were required to hold a percentage of their assets, typically one-third, in metal. The second group was the securities and other financial assets backing currency in circulation, up to 100% of circulation. Sometimes currency boards separated their assets exceeding 100% of currency in circulation into a special account on the balance sheet.

Some currency boards many subaccounts in their balance sheets and income-expenditure statements. The subaccounts facilitated focus on particular activities, such as issue and redemption of notes, manufacture of coins, contributions to employee pension funds, etc. The tendency over the course of the early 20th century was to consolidate subaccounts, simplifying the financial statements.

Format of the standardized balance sheet

The original financial statements of currency boards use varying formats and ways of accounting for some items. To facilitate comparisons across time and across currency boards, we convert the original financial statements into standardized balance sheets. The categories in the standardized balance sheets are based on those the International Monetary Fund (IMF) employs in its widely used *International Financial Statistics* database, though we have tailored our categories for the typical circumstances of currency boards. We list gold and silver separately, for instance, because many currency boards had fixed exchange rates with gold or gold-linked currencies but issued silver coins whose gold value fluctuated. For explanations of the IMF’s categories, readers may consult two IMF publications, *Monetary and Financial Statistics Manual* (2000) and *Monetary and Financial Statistics: Compilation Guide* (2008).

The categories and subcategories in the standardized balance sheet are exhaustive. For instance, if a currency board apparently held both gold and securities as foreign financial assets, but the original balance sheet and accompanying text offer no details, we place the result in the standard balance sheet under “Assets > Foreign financial assets > Other or unspecified.”

Nonfinancial assets and liabilities such as office furniture or electrical bills, which are not directly related to the issue and redemption of currency, are classified under “Domestic assets (or liabilities) > other or unspecified.”

Some British colonial currency boards had their headquarters in London, not in the territories they served. Even in such cases, we consider British assets and liabilities to be foreign, because they were external to the territories the currency boards served.

Table 1. Standardized currency board balance sheet

Assets	Liabilities and net worth
Foreign assets —Gold (coins and bullion) —Silver (coins and bullion) —Securities —Deposits —Other or unspecified (cash, etc.) Domestic assets —Claims on central government(s) (including government-issued coins) —Claims on banks (financial institutions) —Other or unspecified	Foreign liabilities Domestic liabilities —Monetary base: notes in circulation —Monetary base: coins in circulation —Monetary base: deposits or other —Other or unspecified (i.e., not monetary base) Net worth —Paid-in capital (zero in most cases) —Other or unspecified (retained earnings, etc.)
Memo items Notes to balance sheet; off balance sheet items; other items	

Format of the standardized income and expenditure statement

The standardized statements of income and expenditure (“income statements”) use categories we devised after looking at the statements for various monetary authorities; *International Financial Statistics* does not publish such data, so we could not approximate its categories. The income statements of some currency boards include flows of currency issued and redeemed. In such cases, income and expenditures may greatly exceed assets and liabilities. Typical income statements of monetary authorities today do not show gross or even net flows of currency, removing them to separate accounts or relegating them to memo items. Our standardized income statement follows today’s typical practice. “(Reconciliation)” is in parentheses to denote that it is an infrequently used fudge factor—an item to create balance when excluding items from the original income statement left the standardized statement out of balance.

Table 2. Standardized currency board income and expenditure statement

Income	Expenditures
Investment income (including capital gains or losses) Fees Other or unspecified (Reconciliation)	Currency expenses (printing, transport) Staff costs (salaries, travel) Office expenses (including strongrooms) Taxes Distributions Retained earnings Other or unspecified (Reconciliation)
Memo items Notes to income and expenditure statement	

Where our standardized income and expenditures do not balance, we use the “Other or unspecified” income line to balance them. The adjustment item therefore equals expenditures minus investment income, fees, borrowed funds, and other or unspecified income. Typically the adjustment item represents investment income that in the original balance sheet is tangled up with the sales and purchases of assets involved with issuing and redeeming currency. Where the adjustment item is a large share of total assets, it indicates a high degree of uncertainty about the precise sources of investment income. The “Reconciliation” line indicates what we believe to be accounting, rounding, or printing errors in the original statements, which are in almost all cases quite small.

We identified financial assets as domestic or foreign based on information from the balance sheets, the lists of securities held that many currency boards published in their annual reports, and the text of the reports. For British colonial currency boards, securities listed that contained no place name were almost always issued by the British government (“Exchequer Stock,” “Funding Loan,” “National War Bonds,” “Savings Bonds,” as opposed to “Newcastle” or “Nigeria”). Also, British usage of the word “stock” in the context of colonial currency boards meant government securities, not equities.

Many currency boards that published annual balance sheets also published abbreviated financial statements at higher frequency. The abbreviated financial statements often omitted items present in the annual balance sheets, such as bank deposits on the asset side and net worth on the liability side, and rarely contained any data on income and expenditure.

Format of the entries on individual currency boards

The entries in Part II of this paper, offering background information on the financial statements of individual currency boards, use the following common format.

1. *Name, headquarters, dates, membership*: Some boards had an incubation period before they began issuing currency. We specify membership only for boards that covered multiple countries. We also summarize why the boards were established and, if they no longer exist, why they were replaced.
2. *Legislation*: Key laws and regulations affecting the operation of the currency board; extensive in some cases, but not intended to be a complete legislative history. Laws in the British Empire are often given using the name and reign year of the monarch; for instance, 13-14 Geo. V, cap. 48, means the law was passed in a session of the legislature spanning the 13th and 14th years of the reign of King George V and that it was the 48th chapter (law) passed in that year.
3. *Exchange rate and currency system*. We note the exchange rate; whether the currency board imposed commission fees that created a spread between its buying rate and its selling rate for the anchor currency; the minimum amount the board would accept for an exchange; whether the currency was decimal or nondecimal; what kinds of currency the board issued; and whether there were other issuers of currency. Mentions of currency denominations issued generally exclude commemorative and collector’s coins. In some cases, local bank branches issued notes alongside the currency board. Bank notes were usually not legal tender, meaning that payees could refuse to accept them. Many currency boards did not issue coins, leaving them to the local government or, for several British colonies, the British government.
4. *Financial year; sources of data*: Dates of the reporting period typically covered in an annual report, and a description of the completeness of our annual data. References to the International Monetary Fund’s *International Financial Statistics* are to the most recent database version we have seen. Note that data may be in either the “Country Tables” folder or the “Historical Data” folder of the *International Financial Statistics* database. In a few cases, old print issues of *International Financial Statistics* may have data not available electronically. This section also Mentions whether the currency board published any data of greater than annual frequency in the sources we consulted. We have digitized the data unless it is mentioned that we have not done so or that the data are available on the Web site of the monetary authority in question.
5. *Remarks on the balance sheet*: The balance sheet lists assets and liabilities at *the end of* the reporting period.
6. *Remarks on the income and expenditure statement*: The income and expenditure statement lists income and expenditures *during* the reporting period.
7. *Remarks on other accounts and data*: Other accounts or data that appear in the financial statement.
8. *Deviations from orthodoxy*: An orthodox currency board has three major characteristics: (1) a rigid exchange rate with an anchor currency; (2) full convertibility with the anchor currency,

though not necessarily with third currencies; and (3) 100% net foreign reserves at the margin, such that a change in foreign reserves causes an equal change in the currency board's monetary liabilities (notes, coins, or deposits). Most currency boards have also maintained net foreign reserves in total, not just at the margin, equal to 100% or slightly more of their monetary liabilities. Under this heading we remark to what extent a system did or did not deviate from currency board orthodoxy.

Some countries with currency boards had exchange controls against currencies other than the anchor currency. For instance, when the pound sterling had exchange controls, from 1939 to 1979, most currency boards that used the pound sterling as their anchor currency prohibited free markets in third currencies. The purpose of the prohibition was to avoid creating loopholes for arbitrage against sterling. Had Nigeria allowed a free market existed for converting West African pounds into U.S. dollars, arbitrageurs would have converted pounds sterling into West African pounds, then exchanged West African pounds for dollars, rendering exchange controls for the pound sterling ineffective. Under our definition, such controls were not deviations from orthodoxy because they posed no barrier to convertibility with the anchor currency itself.

9. *Other remarks.* Miscellaneous noteworthy tidbits from the sources we consulted.
10. *References.* We refer to annual reports of currency boards and other monetary authorities by the years they cover, not the years they were published.
11. *Spreadsheets.* A note on whether spreadsheet workbooks for the currency board in question have been posted for the public yet. For the larger currency boards there are usually two workbooks, one for detailed annual data on the balance sheet, income and expenditures from the annual report and the other with less detailed high-frequency data from the annual report or the government gazette. For smaller currency boards, often only high-frequency data are available. Typically they give abbreviated balance sheet data and no data on income and expenditures.

In our remarks on the balance sheet and the income/expenditure statement, we always discuss assets before liabilities, income before expenditures, and credits before debits for any particular year, whereas in the original currency board reports and hence in the raw data, the order may be reversed.

Copyright considerations

This paper and the accompanying spreadsheets are copyrighted 2014 by the authors. (Some data have been previously issued in the Studies in Applied Economics working paper series of the Institute for Applied Economics, Global Health and the Study of Business Enterprise. Those data are used by permission of their authors.) In general, currency board reports published more than 50 years ago are out of copyright, although the particulars of copyright vary from country to country. Where material is still under copyright, Kurt Schuler asserts the propriety of disseminating data from financial statements under "fair use" provisions, and he assumes sole responsibility for any potential infringement of copyright. We will withdraw spreadsheet data if it can be shown that publishing them violates applicable law in the United States. Contact Kurt Schuler (kschuler@the-cfs.org).

II. COUNTRY SUMMARIES

Argentina

Name, headquarters, dates

- 17 November 1890-30 May 1935: Caja de Conversión (Conversion Office), headquarters Buenos Aires, Argentina. The Caja de Conversión was established in 1890, in the wake of a currency and economic crisis (Caja de Conversión annual report, 31 March 1891: 3) but ***it operated as a currency board only from late January 1903 or February 1903 to 8 August 1914 and again from 25 August 1927 to 15 December 1929.*** At other times it had a fluctuating exchange rate or did not allow full convertibility of its currency into gold (its anchor currency) and was therefore not a currency board, but for completeness we include balance sheet data from all years for which we have them. The Caja de Conversión was succeeded on 31 May 1935 by the Banco Central de la República Argentina, a central bank. The Great Depression led Argentine policymakers to view a more activist monetary authority as desirable.
- 1 April 1991-8 January 2002: Banco Central de la República Argentina, headquarters Buenos Aires, Argentina. The central bank was constrained by quasi currency board rules established in the wake of a hyperinflation. The system, known in Argentina as “convertibility,” ended with a currency and economic crisis in 2001-2002. See the remarks below on deviations from orthodoxy.

Legislation

- Argentina, Law No. 2741, 3 October 1890: Established the Caja de Conversión.
- Argentina, Law No. 3871, 31 October 1899: Established a gold standard in law, though in practice the gold standard did not begin until February 1903.
- Argentina, Ministerio de Hacienda, Reglamento interno de la Caja de Conversión, 17 December 1908 (*Boletín oficial de la República Argentina*, 22 December 1908: 801-806): Regulated the internal structure of the Caja de Conversión.
- Argentina, Law No. 9478, 9 August 1914: Imposed a payments moratorium of 30 days throughout the economy.
- Argentina, Law No. 9479, 9 August 1914: Authorized rediscounts of Banco de la Nación Argentina for commercial bills of up to 180 days at the Caja de Conversión as long as gold reserves did not fall below 40% of notes in circulation.
- Argentina, Law No. 9480, 9 August 1914: Allowed Argentine legations (embassies) abroad to accept gold deposits from persons needing to make payments in Argentina.
- Argentina, Law No. 9481, 9 August 1914: Suspended for 30 days the obligation of the Caja de Conversión to redeem in gold.
- Argentina, Law No. 9506, 30 September 1914: Indefinitely extended the suspension in Law No. 9481.
- Argentina, decree of 25 August 1927: Resumed the gold standard.
- Argentina, decree of 5 December 1929: Not yet seen—we believe it concerns rediscounting.
- Argentina, decree of 16 December 1929: Suspended the gold standard, ending the Caja de Conversión’s time as a currency board.
- Argentina, Law No. 11826, 30 September 1933: Imposed a tax on foreign exchange operations.
- Argentina, Law No. 12.155, 21 March 1935: Replaced the Caja de Conversión with a central bank, the Banco Central de la República Argentina.
- Argentina, Law of the Convertibility of the Austral (Convertibility Law), No. 23.928, 27 March 1991: Established the “convertibility” system. The law established a selling rate but no buying rate for the peso in terms of the dollar; in principle the central bank could have made the peso appreciate, though in practice it did not.

- Argentina, Law 23.990, article 37, partly promulgated on September 16, 1991: set the minimum ratio of reserves excluding Argentine government bonds at 90%.
- Argentina, Law 24.144, Article 1, (sub)articles 20, 33, and 60: Revised law of the central bank, which stated that during the first three years of the operation of the law, the normal minimum ratio would be 80%, but the central bank could declare a 90-day emergency period during which it could reduce the ratio to 66⅔%. The central bank never used the provision. After three years, the law provided for the minimum ratio to be 66⅔% in all circumstances. Separately, the law forbade the central bank from increasing its holdings of Argentine government bonds by more than 10% over the average of the previous year.
- Argentina, Decree 803/2001, 18 June 2001: Established an export subsidy exchange rate.
- Argentina, Law 25.445, 22 June 2001: Allowed the president to change the basis of the exchange rate to a 50-50 combination of the dollar and euro when the euro reached parity with the dollar. (At the time, the euro was worth less than \$1).
- Argentina, Decree 1570/2001, 1 December 2001: Restricted deposit withdrawals to 250 pesos a week in response to a bank run. Andrew Powell, chief economist of Argentina's central bank from 1996 to 2001, identifies the trigger for the run as the central bank's Communication "A" 3365 of November 26, which limited interest rates on new deposits.
- Argentina, Law of Public Emergency and Reform of the Exchange Rate Regime, No. 25.561, 6 January 2002: Ended the quasi currency board to return to standard central banking.

Exchange rate and currency system

Argentina's currency has had a number of names over the years. Argentina fully decimalized its currency in 1881, and whatever the name of the currency unit, the decimal subdivision has always been 100 centavos. The exchange rates relevant to the periods we cover are as follows:

- 1890 to late January 1903 or February 1903: Float (not a currency board in this period).
- Late January or February 1903 to 8 August 1914: 1 Argentine peso = 0.6387084 grams gold. Officially, the currency was called the *peso moneda nacional*. Popularly, it was called the paper peso to distinguish it from the gold peso, the popular term for the peso before the depreciation of 1885. In this period, 1 Argentine paper peso = 0.44 Argentine gold peso.
- 9 August 1914 to 24 August 1927: Managed float (not a currency board in this period).
- 25 August 1927 to 15 December 1929: 1 Argentine peso = 0.6387084 grams gold.
- 16 December 1929 to 31 March 1991: Variety of exchange rates and currency units (not a currency board in this period).
- 1 April 1991 to 31 December 1991: 10,000 Argentine australes = US\$1.
- 1 January 1992 to 8 January 2002: 1 Argentine peso (convertible peso) = US\$1. The new peso was worth 10,000 australes, and all old prices were divided by a factor of 10,000, so the new exchange rate was merely a redenomination of the currency, not a devaluation or revaluation against the U.S. dollar.
- (In June 2001 the Argentine government established an export subsidy exchange rate and passed law to change the exchange rate to a 50-50 combination of the dollar and euro when the euro reached parity with the dollar.)

We do not know what the minimum size of an exchange was or whether there was a commission fee for exchanges.

The Argentine peso and its successors have been decimalized currencies, subdivided into 100 centavos. The peso moneda nacional was established by Argentina, Law 1130, 5 November 1881, as modified by Law 3871, 4 November 1899. It existed until 31 December 1969. There were then two successor currencies, the peso ley (equal to 100 pesos moneda nacional) from 1 January 1970-31 May 1983, and the peso argentino (equal to 10,000 pesos ley) from 1 June 1983-14 June 1985. Argentina, Decree 1086 of 14 June 1985, established the austral (meaning "southern" in Spanish), equal to 1,000

pesos argentines, effective 15 June 1985. Argentina, Executive Order 2128, 10 October 1991, established the peso convertible, equal to 10,000 australes, effective 1 January 1992.

The Caja de Conversión issued coins of 1-20 centavos and notes of 1-1,000 pesos moneda nacional. During the period 1 April 1991-8 January 2002, the Banco Central de la República Argentina was issuing or had issued coins of 1-1,000 australes and notes of 1-500,000 australes, although it had stopped producing the lower denominations as inflation reduced their real value. It then issued coins of 1 centavo-2 convertible pesos (plus a commemorative coin of 5 pesos) and notes of 1-100 pesos.

Both during the period of the Caja de Conversión and of the Banco Central de la República Argentina, provincial governments issued notes. These issues were illegal under the Argentine constitution, but tolerated. To evade the prohibition against them, notes were often technically issued as small-denomination bonds or allegedly temporary IOUs.

Financial year; sources of data

The financial year for Argentina's monetary authorities initially ran from April 1 to March 31. Starting in 1896 the financial year became the calendar year, January 1 to December 31. The year 1896 was a transitional period: the first three months are covered in the annual report ending March 31 and the later months are covered in the report for the period ending December 31.

We have copies of all the annual reports of the Caja de Conversión except 1904. Apparently the last annual report covered 1933; there seems to be no report for 1934. The Caja de Conversión also published monthly statements in the *Boletín Oficial de la República Argentina*, and all issues of that publication are available online. The annual reports (*Memoria*) of the Secretaria de Hacienda (in some years called the Departamento de Hacienda) also contain useful summary reports by the Caja de Conversión. All the annual reports for the Banco Central de la República Argentina, which start in 1935, are available on its Web site. The central bank also publishes certain daily and monthly data that are available on the site.

The International Monetary Fund's *International Financial Statistics* database begins data on Argentina in 1948. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

The *Boletín oficial de la República Argentina* contains a monthly balance sheet perhaps from the start of the publication in 1893. We have not yet checked the predecessor *Registro Oficial de la República Argentina* to see if it has statistics from 1890 to 1903. Some annual reports also contain certain monthly statistics.

Remarks on the balance sheet

In the raw data, we give the original Spanish terms as well as our translations.

The balance sheet has columns for paper pesos (= 0.44 gold pesos) and gold pesos. From the first annual report in 1891 to the financial year ending April 1, 1896 the annual report contained no formal balance sheet, although it described items from which one could assemble a balance sheet. Monthly balance sheets are available, however, for at least part of the period from the government gazette (see the section below on "High-frequency data"). The report for the nine-month period ending December 31, 1896 contains the first formal annual balance sheet. Starting in 1908 the presentation of the balance sheet in the annual report changed considerably, adopting a more modern look by eliminating a number of items that typically did not appear in the balance sheets of other monetary authorities in the 20th century.

Remarks on the income and expenditure statement

In the raw data, we give the original Spanish terms as well as our translations.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Argentina established the Caja de Conversión in 1890, but the Caja did not initially operate as a currency board. Rather, it issued a floating currency. A law of November 1899 re-established the gold standard by law, but in practice Argentina did not return to the gold standard until late January 1903 or February 1903, when the Caja de Conversión first began to accumulate sufficient gold reserves to meet all demands to redeem its currency in gold. The Caja maintained an unbacked issue of 293,018,258.44 pesos, the equivalent of notes issued before Law No. 3871, but was required to hold gold reserves equal to its currency in circulation beyond the unbacked issue. Soon after the outbreak of World War I, the Caja ceased converting its currency into gold, abandoning a fixed exchange rate and therefore ceasing to be a currency board. It re-established convertibility into gold at the prewar exchange rate on 25 August 1927 and operated once again as a currency board. Soon after the U.S. stock market crash of October 1929 triggered international repercussions, the Caja abandoned the gold standard and the currency board system permanently.

Argentina established the Banco Central de la República Argentina in 1935 as the successor to the Caja de Conversión. In 1991, following a hyperinflation, the government revised the monetary policy of the central bank to make it operate in some respects like a currency board. The new policy, dubbed “convertibility,” had a number of differences from an orthodox currency board approach. Most commentators on Argentina’s monetary system have neglected the differences. The main legal basis of the convertibility system, the Convertibility Law of 1991, explicitly allowed the central bank to count Argentine government bonds payable in foreign currency as reserves, setting no limit on the extent of the practice. Later laws reduced the size of this loophole, ultimately imposing a minimum foreign reserve requirement of 66-2/3% against the monetary base. No maximum existed. For an early summary of the case that the central bank was not an orthodox currency board, see Hanke, Jonung, and Schuler (1993: 72-74). For a brief summary available online, see Schuler (2005: 243-245), who has references to many longer articles. Argentina abandoned the quasi currency board on 9 January 2002 in the midst of an economic crisis.

Other remarks

We thank Domingo Cavallo and Horacio Liendo for help in obtaining copies of annual reports of the Caja de Conversión.

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Spreadsheets

Under construction.

Bahamas

Name, headquarters, dates, membership

Commissioners of Currency, headquarters Nassau, Bahamas.

The financial statements of the Commissioners of Currency indicate that they began operations in 1921. The first mention of an issue of currency in the colonial annual reports occurs in the report for the 1921/1922 financial year (Bahamas annual report, 31 March 1923: 3). The Commissioners seem to have been established because there were no note-issuing banks in the Bahamas; the local note-issuing Bank of Nassau had failed in 1916. The Bahamas Monetary Authority replaced the Commissioners of Currency on [1 October?] 1968. The reasons for establishing the Bahamas Monetary Authority were to allow greater discretion in monetary policy at a time of turbulence in currency markets (the pound sterling had been devalued in November 1967, but the Bahamas did not follow, creating significant foreign-exchange losses for banks) and to combine monetary policy and financial regulation in a single organization (Central Bank of the Bahamas 2011).

Legislation

- Bahamas, Currency Note Act of 18 December 1919: Established the Commissioners of Currency by law, although they did not begin operations until 1921.
- Bahamas, Currency Note Act, 1936: Placed the legal status of government currency notes on a permanent basis.
- Bahamas, Currency Act, No. 80, 16 December 1965: Changed the unit of account from the pounds-shilling-pence Bahamas pound to the decimalized Bahamian dollar and reduced the minimum foreign reserve requirement to 50%.
- Bahamas, Bahamas Monetary Authority Act, No. 27, 23 October 1968: Established the Bahamas Monetary Authority to replace the Commissioners of Currency.

Exchange rate and currency system

- 1921 to 24 May 1966: Bahamas £1 = £1 sterling. Like the United Kingdom at the time, the Bahamas used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny).
- 25 May 1966 to 17 November 1967: Bahamian \$1 = 7 shillings (£0.35) sterling. The Currency Act of 1965 provided for the Bahamas to change to a decimal system using the dollar as the unit of account (Bahamas annual report 1964 and 1965: 21-22). The exchange rate with the pound sterling was chosen to make the cross rate of the Bahamas dollar nearly equal to the U.S. dollar; at the time, Bahamas \$1 = US\$0.98. The Bahamian dollar was subdivided into 100 cents.
- 18 November 1967 to [30 September?] 1968: Bahamian \$2.44898 = UK£1, or Bahamian \$1 = US\$0.98. The Bahamas did not follow the devaluation of the pound sterling because of their increasingly important economic links with the United States, but the pound sterling remained the anchor currency ([citation—government gazette, colonial annual report?]).

We found no information about commission fees the Commissioners of Currency charged, but we suspect that they were on the order of 0.5% to 1%, as in many other British colonial currency boards of the time.

The Commissioners of Currency issued notes of 4 shillings to £5 under the sterling system. Under the Commissioners of Currency, the Bahamas used British coins until it decimalized the currency. British silver coins were unlimited legal tender until a British proclamation of 27 October 1936 limited their legal tender limited to £2 (40 shillings) effective 1 November 1936. The local Currency Notes Act 1936, which also came into effect on 1 November 1936, declared government notes to be legal tender and to be deemed current coin of the colony (Bahamas annual report 1936: 21). Under the decimal system, the Commissioners issued coins of 1 cent to \$5 and notes of 50 cents to \$100. (Bahamas annual report 1964

and 1965: 21-22). The \$2 and \$5 coins seem to have been aimed mostly at collectors. A \$3 note was issued because it was equal to close to £1 (to be precise, £1 1 shilling, or £1,05).

Financial year; sources of data

We have copies of the relevant sections of all Bahamas colonial annual reports published from 1919 to 1964/1965, which may have been the last. The reports contained some annual data, though not necessarily in all years. The first specific mentions of the Commissioners of Currency and the associated Note Guarantee Fund and Depreciation Fund, along with their specific amounts and the board's profit for the year, occur in 1935. Figures are for the financial year ending 31 March (Bahamas annual report 1935: 18). The 1936 colonial annual reports was the first to list notes in circulation at the end of the calendar year instead of the financial year, because it was when the government as a whole switched the end of its annual reporting period from 31 March to 31 December (Bahamas annual report 1936: 21; 1937: 27).

We have copies of the annual reports of the Bahamas Monetary Authority from 1970 to 1973 but are missing the 1968/1969 report.

Higher-frequency data than the annual data we collected may exist in the government gazette, which we have not yet searched.

Ramsaran (1984: 305-313) contains useful narrative and statistics of on the period of the currency board and the Bahamas Monetary Authority.

The International Monetary Fund's *International Financial Statistics* database begins coverage of the balance sheet of the monetary authority in the Bahamas in December 1968, just after the currency board period.

Remarks on the balance sheet

Balance sheet information for the Commissioners of Currency comes mainly from Ramsaran (1984: 298-299), who took his data from the *Official Gazette*. The colonial annual reports provide little balance sheet information apart from note issue.

In 1934 the Commissioners of Currency apparently ceased to hold substantial reserves in coin, and converted most coins into interest-bearing assets (see Ramsaran 1984: 298-299).

After the Currency Act of 1965 allowed the Commissioners of Currency to hold domestic assets, we have no data on their holdings. We infer from the need for the balance sheet to balance and from holdings of domestic assets by the successor Bahamas Monetary Authority that the Commissioners of Currency held domestic assets from 1966 onward. We have inserted a guess as to the extent of their holdings, which we believe consisted entirely of Bahamian government securities.

Remarks on the income and expenditure statement

None. The colonial annual reports provide almost no information on income and expenditures.

Remarks on other accounts and data

The 1956 and 1957 colonial annual report mentions a cost of living index, the first reference we noticed, though there may be references in older reports we did not notice (Bahamas annual report 1956 and 1957: 8).

Deviations from orthodoxy

Bahamas, British Silver Prohibition of Exportation and Hording Act 1919, forbade the export or hoarding of British silver coins, which formed a large part of the coinage of the Bahamas since the colony issued no local coins. At the time, silver was experiencing a rise in value such that the market value of the silver coins threatened to exceed their face value and result in melting down. The act was not a form of exchange control.

Bahamas, Currency Act of 1965, in addition to decimalizing the currency, reduced the legal minimum foreign reserve requirement for notes in circulation from 100% to 50% (Ramsaran 1984: 301).

We infer from the information available on the foreign assets of the Commissioners of Currency that by 1966 they began to hold Bahamian government securities for the first time, in substantial amounts.

Other remarks

We thank Andrew Rosenberg for digitizing data from the colonial annual reports.

The note-issuing privately owned Bank of Nassau failed on 15 December 1916 (Doty 1917). The government of the Bahamas guaranteed the bank's note issue, while the Royal Bank of Canada, the other bank in the colony, took over its deposit business and paid depositors in full. The Bank of Nassau had a note issue of £6,500 in notes of £1 and 4 shillings (£0.20, equal to nearly US\$1). The government considered whether to issue its own note (Bahamas annual report, 31 March 1917: 4), but a year later, all but £840 of the notes had been redeemed (Bahamas annual report, 31 March 1918: 2).

The estimated circulation of British notes was £30,000 at the end of the 1917/1918 financial year (Bahamas annual report, 31 March 1918: 3) and £40,000 a year later (Bahamas annual report, 31 March 1919: 3). After the Commissioners of Currency began issuing notes, British notes continued to circulate in substantial amounts, as did U.S. notes (Bahamas annual report 1926: 11).

Rabushka (2010: 52-57) reprints the 1936 Currency Note Act.

British silver coins were apparently unlimited legal tender in the Bahamas until a British Order in Council of 27 November 1936 limited their legal tender to 40 shillings (£2) effective 1 November 1937 (Bahamas annual report 1937: 27)

The 1931 report is the first that estimates British coins in circulation—£55,000 in silver coins (Bahamas annual report 1931: 15). In addition there were copper coins, whose amount is not estimated. Because Britain abandoned the gold standard in 1931, by the end of the year gold coins were probably no longer part of the money supply.

[Pages 16-17 of the 1933 report, the main part of the banking and currency section, are missing from our photos.]

Banks charged a discount (fee) of 0.25% for sales of Bahamian pounds against pounds sterling up to the first £100,000 and 0.125% on the excess over £100,000. The minimum charge was 1 shilling, or 6 pence for checks less than £10. Banks charged a premium (fee) of 0.5% for purchases of pounds sterling with Bahamian pounds, with a minimum fee of 1 shilling (Bahamas annual report 1952 and 1953: 13).

By agreement with the British government, the Commissioners of Currency were allowed in October 1965 to hold up to 25% of assets in US dollars or gold, rather than holding all foreign assets in pounds sterling as previously. The reason for the diversification of reserves was the trade and investment links of the Bahamas with the United States (Ramsaran 1984: 301-302).

The Bahamas Monetary Authority Act, 1968, replaced the Commissioners of Currency with the Monetary Authority. The Monetary Authority was allowed to hold up to 50% of its assets in domestic assets, though by 1973 its domestic assets had peaked and were small (Bahamas Monetary Authority annual report 1973: 11). We have included data on the Bahamas Monetary Authority in the workbook to show that it was not a currency board.

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Spreadsheets

Annual data done for now, though we are still missing data for 1947, 1948, 1953; high-frequency data remain to be investigated.

Bahrain Currency Board

Name, headquarters, dates, membership

Bahrain Currency Board (BCB; in Arabic, Majlis Naqd al-Bahrayn), headquarters Manama, Bahrain. The government of Bahrain decided early in 1964 to introduce a national currency to replace the Gulf rupee, a variety of the Indian rupee issued by India exclusively for external use (BCB annual report, 31 March 1966: 1). The Gulf rupee was therefore a currency of limited international acceptability. The Board began operations on 16 October 1965. On 1 April 1974, the Bahrain Monetary Agency succeeded it (Bahrain Monetary Agency annual report 1974: 8). The Bahrain Monetary Agency had discretionary powers that the Bahrain Currency Board did not. The government considered the discretionary powers more consistent with Bahrain's recently achieved status as an independent country and useful during a time of international monetary uncertainty as countries were moving from the former system of pegged exchange rates with gold and the U.S. dollar to more varied arrangements.

Abu Dhabi began using the Bahrain dinar as a transitional measure after India devalued the Indian and Gulf rupees on 6 June 1966. The other states of what would later become the United Arab Emirates used the Saudi riyal starting 16 June 1966. Abu Dhabi did not use the Saudi riyal because its ruler had a dispute with Saudi Arabia over a border oasis (Anonymous 2002: 21). Abu Dhabi used the Bahrain dinar as its official currency from 18 June 1966 to 18 May 1973. The Bahrain dollar was adopted as *sole* legal tender in Abu Dhabi, apparently effective 22 February 1967 (BCB annual report, 31 March 1967: 1, 12). Abu Dhabi joined the other members of the United Arab Emirates in issuing a common currency and ceased using the Bahrain dinar on 19 May 1973 (BCB annual report, 31 March 1973: 2).

Legislation

- Bahrain, Bahrain Currency Decree, Decree No. 6 (Finance), 9 December 1964: Established the Bahrain Currency Board.
- Bahrain, Decree Law No. 23, 5 December 1973: Established the Bahrain Monetary Agency (Mu'assasat Naqd al-Bahrayn) to replace the Bahrain Currency Board.

Exchange rate and currency system

The currency Bahrain used before the currency board was the Gulf rupee, a version of the Indian rupee issued exclusively for external use. The exchange rate of new currency for old currency was 1 Bahrain dinar = 10 Gulf rupees (BCB annual report, 31 March 1966: 12).

The official exchange rate throughout the life of the currency board was 1 Bahrain dinar = 1.86621 grams gold. The actual exchange rates and actual anchor currencies were as follows:

- 16 October 1965 to 17 November 1967: 1 Bahrain dinar = 15 shillings (£0.75) sterling (BCB annual report, 31 March 1966: 1, 23-27).
- 18 November 1967 to 25 June 1972: 1 Bahrain dinar = 17 shillings 6 pence (£0.875) sterling (BCB annual report, 31 March 1968: 1, 15-16). Bahrain did not follow the United Kingdom's devaluation of the pound sterling on 18 November 1967.
- 26 June 1972 to 12 February 1973: 1 Bahrain dinar = US\$2.28 (BCB annual report, 31 March 1973: 2, 15). After the United Kingdom floated the pound sterling on 23 June 1972, Bahrain in effect switched to the U.S. dollar as the anchor currency, at the cross rate prevailing before the float. The government announced that it would adjust the value of the dinar in terms of the pound sterling from time to time. Currency board annual reports continue to mention the exchange rate with the pound sterling, which the currency board set daily in such a way as to maintain the gold parity.
- 13 February 1973 to 22 January 1974: 1 Bahrain dinar = US\$2.53 (BCB annual report, 31 March 1973: 2). Bahrain did not follow the devaluation of the U.S. dollar against gold.

The Bahrain Currency Board imposed a commission charge of 0.125%, with a minimum transaction size of £75,000 sterling for issues and 100,000 Bahrain dinars for redemptions (BCB annual report, 31 March 1966: 3, 29). After the devaluation of the pound sterling on 18 November 1967 the Board raised the minimum sized of the transaction in sterling to £87,500 pounds, equal to 100,000 Bahrain dinars (BCB annual report, 31 March 1968: 17).

The Bahrain dinar was a decimal currency divided into 1,000 fils. The currency board issued coins of 1 to 100 fils and notes of 100 fils to 10 dinars BCB annual report, 31 March 1966: 1; 31 March 1968: 1).

Financial year; sources of data

The Bahrain Currency Board's financial year ran from 1 April to 31 March.

We have copies of all the Bahrain Currency Board's annual reports and a half-year financial statement covering its last complete half-year of operations, which ended in September 1973.

The annual reports of the Bahrain Currency Board show monthly data for currency in circulation (for instance, BCB annual report, 31 March 1966: 8).

The International Monetary Fund's *International Financial Statistics* database has coverage of Bahrain starting in 1965. Its standardization of the currency board balance sheet data differs from ours, and it does not show currency board income and expenditures.

Remarks on the balance sheet

The balance sheet values gold holdings at cost but also shows their market value except in 1966, when the Bahrain Currency Board held no gold, and 1973, when we are unsure why the figure is omitted.

Remarks on the income and expenditure statement

The Currency Reserve Fund, in existence during the first two financial years of the Bahrain Currency Board, was an account to register the conversion of Indian Gulf rupees to Bahrain dinars.

1973: The currency board sustained a loss from the revaluation of the pound sterling (BCB annual report, 31 March 1973: 3).

Remarks on other accounts and data

The annual reports of the Bahrain Currency Board show figures on cash held by banks and the public, and quarterly summary balance sheet data of commercial banks in Bahrain (for instance, BCB annual report, 31 March 1966: 3, 9). The first annual report of the Bahrain Monetary Agency report shows the closing balance sheet for the currency board?

Deviations from orthodoxy

The Bahrain Currency Board's official anchor currency was gold, but although it held some gold as reserves it did not redeem its currency in gold. The actual anchor currency was the pound sterling and later the U.S. dollar.

While the Bahrain Currency Board in practice used the pound sterling as the anchor currency, Bahrain was a member of the sterling area and applied exchange controls to countries outside the sterling area. This was not a deviation from currency board orthodoxy, given that convertibility into the anchor currency was unrestricted. When the United Kingdom floated the pound sterling in 23 June 1972 it largely dissolved the sterling area, and Bahrain was one of the many countries that left the sterling area. No significant exchange controls remained in Bahrain.

Other remarks

Because the Gulf rupee was not a fully convertible currency, its redemption was the subject of a negotiation between the Bahrain and Indian governments. The Indian government agreed to pay one-third of the Gulf rupees redeemed, or 2 million pounds sterling, whichever was less, by 30 April 1966, and the rest in annual installments over 10 years. The government of Bahrain subsequently agreed to provide the

Currency Board with the sterling required for the initial backing of the new Bahraini currency Government of Bahrain decided early in 1964 to introduce a national currency to replace the Gulf rupee (BCB annual report, 31 March 1966: 2).

1965: The currency was introduced on 16 October 1965 and there was an exchange period from 16-22 October, later extended to 24 October, after which the Bahrain dinar became sole legal tender. The total value of currency exchanged was 78,552,994.64 Gulf rupees, of which 77,730,291 Gulf rupees were notes and 822,703.4 Gulf rupees were coins. The exchange rate was 1 Bahrain dinar = 10 Gulf rupees (BCB annual report, 31 March 1966: 12).

1966: From mid January to 31 March 1966, the Bahrain Currency Board made 12,650 dinars of coins available to other Persian Gulf states after the Reserve Bank of India withdrew its normal facilities for converting coins repatriated from those states into sterling. The Currency Board issued them against sterling. Banks supplied a further amount, making 18.700 Bahrain dinars in all (BCB annual report, 31 March 1966: 3).

The currency board's law required a minimum of 100% foreign reserves, limited securities to those maturing within 15 years and mandated that securities with maturities longer than five years comprise no more than 20% of the Board's total assets (BCB annual report, 31 March 1966: 15). A later report refers to an additional reserve of 10% (BCB annual report, 31 March 1972: 3).

1967: There was a brisk demand for cash in June 1967 during and after the Arab-Israeli war as many depositors, especially small ones, withdrew cash from banks (BCB annual report, 31 March 1968: 2).

1972: In October 1972 the Board bought German mark assets, apparently the first time it held assets other than gold or pounds sterling (BCB annual report, 31 March 1973: 3).

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Spreadsheets

Annual and high-frequency done.

Barbados

Name, headquarters, dates, membership

Board of Commissioners of Currency, headquarters Bridgetown, Barbados.

The Commissioners of Currency began issuing notes on 8 April 1938, pursuant to a proclamation fixing 1 April 1938 as the date the act came into operation (though the first notes were actually issued one week later) (Barbados annual report 1938/1939: 36). The notes were initially limited to denominations of West Indies \$1 and \$2, leading us to conjecture that the reasons for establishing the currency board were to provide an alternative to the bulky, little-used British crown (5-shilling) coin and to capture seigniorage revenue. A multicolonial currency board, the Board of Commissioners of Currency, British Caribbean Territories (Eastern Group), also known as the British Caribbean Currency Board (headquarters Port of Spain, Trinidad) began issuing notes on 1 August 1951, succeeding local note issues in Barbados, British Guiana (today Guyana), and Trinidad and Tobago. Those colonies joined the board as part of a movement toward possible political federation.

Legislation

- Barbados, Government Currency Notes (Barbados) Act, No. 12 of 1937: Established a currency board.
- Barbados, Government Currency Regulations 1938: Established certain details of the note issue.
- British Caribbean Currency Agreement 1950 and Barbados, Currency Act of 1950 (cited in annual report 1950 & 1951: 23): Ended local government issue of notes in favor of participation in the multicolonial British Caribbean Currency Board.

Exchange rate and currency system

The exchange rate was West Indian (Barbados) \$4.80 = £1 sterling throughout the existence of the currency board. By that rate, 2 West Indian cents = 1 (pre-decimal) pence sterling.

Initially, at least, the minimum amount for an exchange was £5,000 (Barbados, Government Currency Regulations 1937, paragraph 8). We found no information about commission fees the currency board charged; there may have been no fee given the relatively large minimum exchange amount.

The Commissioners of Currency issued notes for West Indian \$1 to \$100. It never issued coins. When the government began issuing notes on 8 April 1938, the denominations were West Indian \$1 and \$2. Bank-issued \$5 notes remained in circulation (Barbados annual report 1938/1939: 38). A longstanding British colonial policy prohibited banks from issuing notes for less than £1, so the minimum denomination of bank notes was \$5. The Colonial Bank (headquarters London), the Royal Bank of Canada, and the Canadian Bank of Commerce issued notes. The Commissioners of Currency began issuing \$5 notes by September 1942 and \$20 and \$100 notes by September 1945 (perhaps earlier; we are missing some statements in this period). By 1947 banks issued of \$5, \$20, and \$100 “although this issue of these notes has been restricted” (Barbados annual report 1947: 20).

The 1929 colonial annual report says, “Accounts are kept in sterling by Government Departments and in dollars and cents by banking and commercial houses. British coin is legal tender and the chief medium of circulation, and British silver is legal tender to an unlimited amount. There is in addition a dollar paper currency issued by the banks, the exchange value being fixed at \$4.80 to the pound sterling” (Barbados annual report 1929/1930: 11). The government switched its unit of account sterling to West Indian dollars from 1 April 1949, which we take to be the start of the financial year (Barbados annual report 1949: 19).

Financial year; sources of data

The financial year ran from 1 April to 31 March throughout the existence of the currency board.

We have copies of many issues of the Barbados *Official Gazette* that contain balance sheets of the currency board. See also the section below on high-frequency data.

We have copies of the relevant sections of all Barbados colonial annual reports published from 1937 to 1963/1964. Colonial annual reports contained some annual data.

The government gazette contains semiannual data on the note issue, as of March and September. We are missing the balance sheet for March 1943; the 1944 gazette, page 646, which according to the index has the balance sheet for September 1943; the 1945 gazette, page 27, which according to the index has the balance sheet for March 1944; the balance sheet for March 1951; and, if published, a statement as of July 1951, just before British Caribbean Currency Board began operations.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet of the monetary authority in Barbados during the period of its local currency board.

Remarks on the balance sheet

The balance sheet does not contain an item for net worth to balance assets and liabilities, so we have calculated net worth ourselves and inserted a line.

Remarks on the income and expenditure statement

The Commissioners of Currency do not seem to have published any separate information on income and expenditures, nor do the colonial annual reports provide any such information. It may be possible to extract information by combing through the government budget, which we did not do.

Remarks on other accounts and data

The 1949 colonial annual report shows monthly cost of living figures starting September 1939 (Barbados annual report 1949: 10).

Issues of the Barbados gazette provide high-frequency data on market exchange rates and prices.

The International Monetary Fund's *International Financial Statistics* database does not cover Barbados during this period.

Deviations from orthodoxy

Barbados's currency board was apparently itself orthodox, but Barbados's overall monetary system was a combination of a currency board and free banking, because banks issued notes alongside the currency board, as mentioned above

Other remarks

We thank Andrew Rosenberg for digitizing the data from the colonial annual report.

1947: The annual report remarks that Barbados government-issued notes of West Indies \$1-\$100 are legal tender in Trinidad and British Guiana, as the government-issued notes of those colonies are in Barbados (Barbados annual report 1947: 20). We surmise that reciprocal acceptance as legal tender was a result of the West Indian Currency Conference that occurred in Barbados in May 1946.

1951: On 1 August 1951 the British Caribbean Currency Board took over the Trinidad and Tobago government note issue. On 15 August the British Caribbean Currency Board began withdrawing Trinidad notes. The note-issuing banks also withdrew their notes (Barbados annual report 1952 & 1953: 28). (See the "Other remarks" on Trinidad for the situation there at the time, which we think may have been replicated in Barbados.)

1955: Bank telegraphic transfer rates for sterling on 31 December 1955 were \$4.7790 (buying) and \$4.8240 (selling) (Barbados annual report 1954 & 1955: 37).

References

Barbados. Annual report. 1929/1930-1963 & 1964. Great Britain (United Kingdom). Colonial Office, *Barbados: Report for ...* (1929/1930-1930/1931); Colonial Office, *Annual Report on the Social and Economic Progress of the People of Barbados* (1931/1932-1938/1939); not published 1939-1945 because of World War II; Colonial Office, *Annual Report on Barbados* (1947-1949), Colonial Office, *Report on Barbados for the Year ...* (1950 & 1951-1963 & 1964). London: His / Her

Majesty's Stationery Office. (This series was called Colonial Reports until World War II and Colonial Annual Reports afterwards; it was suspended during the war for most colonies.)
Barbados. Gazette. *The Official Gazette*. 1937-1951. Bridgetown, Barbados: Published by Authority.

Spreadsheets

Annual done; high-frequency done for now (a few holes remain; we still need to determine whether income-expenditure statements are available).

Bermuda

Name, headquarters, dates, membership

- Government of Bermuda, headquarters Hamilton, Bermuda, 1 March 1915 to 1930. The government issued the notes because of a shortage of currency and uncertain financial conditions related to the outbreak of World War I (Bermuda annual report 1915: 6). Before issuing its own notes, Bermuda used British currency. The first notes were backdated to 2 December 1914.
- Bermuda Currency Commissioners, headquarters Hamilton, Bermuda, 1930 to 5 February 1970. This body was established along the lines usual for British colonial currency boards of the time, as a body legally distinct from the Treasury.
- Bermuda Monetary Authority (BMA), headquarters Hamilton, Bermuda, 6 February 1970 to present. The Bermuda Monetary Authority Act, establishing the Authority, was passed on 20 February 1969. Initially the main function of the Authority was to give effect to an agreement whereby the British government largely guaranteed Bermuda's official sterling reserves from depreciation against the U.S. dollar (BMA annual report 1994: 8). The Authority did not issue currency until 6 February 1970, when the government transferred the Note Security Fund and the Currency Note Account to it (BMA annual report 1994: 8). It continues in existence today. For reasons described below, since mid 1972 the system is best described as a quasi currency board. Unlike the Bermuda Currency Commissioners, the Bermuda Monetary Authority has been explicitly authorized from the start to hold gold, securities in currencies other than sterling, and local assets.

Legislation

- Bermuda, Government Notes Act, No. 5, 19 February 1915: Established government note issue.
- Bermuda, Currency Act, No. 21, 3 August 1915: Made government notes legal tender.
- Bermuda, Government Notes Redemption Act, No. 22, 3 August 1915: Established the Bermuda Investment Trustees to supervise the invested assets backing government currency notes.
- Bermuda, Government Notes Redemption Act, No. 9, 10 March 1917: Authorized an issue of £10,000 in £1 notes.
- Bermuda, Government Notes Act, No. 16, 18 June 1920: Authorized emergency notes of 2.5 shillings (not issued) and 5 shillings to combat a shortage of silver coin.
- Bermuda, Currency Act, No. 40, 28 December 1920: Notes that have been demonetized in the United Kingdom may be demonetized in Bermuda by proclamation of the governor.
- Bermuda, Government Notes Act, No. 15, 8 April 1927: Authorized a new note design.
- Bermuda, Bermuda Currency Notes Act, No. 52, 23 July 1930: Reorganized the currency on a sterling exchange standard with explicit 100% sterling backing for notes. Established the Bermuda Currency Commissioners.
- Bermuda, Bermuda Currency Notes Act, No. 40, 8 November 1935: Authorized 5-shilling notes.
- Bermuda, Bermuda Currency Notes Act Amendment Act, No. 20, 15 May 1939: Allowed the governor to demonetized notes by proclamation; set an upper limit of 110% on reserves.
- Bermuda, Currency Act, No. 21, 14 September 1940: Made Bank of England notes legal tender for any amount. (A response to wartime conditions.)
- Bermuda, Bermuda Currency Notes Act, No. 26, 18 June 1941: Authorized £5 notes.
- Bermuda, Special Coin (Commemorative) Act, 1958: Authorized commemorative coins.
- Bermuda, Bermuda Currency Notes Act, No. 191, 16 December 1963: Authorized £10 notes.
- Bermuda, Currency (Bermuda Crown) Act, 1964: Authorized a commemorative crown coin.
- Bermuda, Currency (Bermuda Coin) Act, No. 172, 4 August 1965: Authorized the Bermuda Currency Commissioners to issue coins on a regular basis.

- Bermuda, Bermuda Monetary Authority Act, No. 57, 20 February 1969: Established the Bermuda Monetary Authority and changed the unit of account from the pounds-shilling-pence Bermudian pound to the decimalized Bermudian dollar.
- Bermuda, Exchange Control Act, No. 109, [date] 1972: Established exchange controls applicable even with the anchor currency.
- Bermuda, Exchange Control Regulations, Statutory Rules and Orders No. 21, 1 May 1973: Gave details of exchange controls.
- Bermuda, Bermudian Dollar Parity Order, 22 May 1981: Established the parity of the Bermudian dollar as “equivalent to one dollar in the currency of the United States of America” and ceased reference to gold.
- Bermuda, Overseas Investment Tax Amendment Act, No. 9, [date] 1986: Converted the tax on foreign investment into a tax on the purchase of foreign currency, with exceptions for travel, personal imports, and some other purposes.
- Bermuda, Bermuda Monetary Authority Amendment Act, No. 27, 24 July 2006: Made a number of minor changes to the law on the Bermuda Monetary Authority.

Exchange rate and currency system

- Bermudian £1 = £1 sterling, from 1842, well before the currency board was established on 1 March 1915, to 5 February 1970. Like the United Kingdom at the time, Bermuda used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). Bermuda used British coins, issuing only commemorative coins. The government initially issued notes of £1, but in later years the range of denominations extended from 2 shillings 6 pence (£0.125) to £10.
- British notes were also made legal tender under Bermuda, Currency Act, No. 21, 3 August 1915; previously, they were somewhat used, although apparently not legal tender. (U.S. dollar notes were also widely accepted because of the U.S. tourist trade [Bermuda annual report 1915: 6]. A later colonial annual report describes the supply of English notes in Bermuda as “small” [Bermuda annual report 1932: 12].) British coins had been made unlimited legal tender by Bermuda, Currency Act, No. 3, 1 July 1861. Until Bermuda began issuing a decimal currency in the next period, it used British coins, except for special local commemorative issues of crowns (5-shilling coins) in 1959 and 1964.
- Bermudian \$2.40 = £1 sterling, 6 February 1970 to 30 July 1972. On the day it took over responsibility from the ministry of finance for issuing the currency, the Bermuda Monetary Authority began issuing a new currency at Bermuda \$2.40 = £1 sterling. Old currency, consisting of local sterling-denominated notes and British coins, was demonetized from 30 June 1970 (BMA annual report 1994: 8). The Bermuda dollar was a decimal currency. It was introduced at an exchange rate making it equal to the U.S. dollar; moreover, at that exchange rate, 1 new cent = 1 old penny (pence). The pound sterling at the time was pegged to the U.S. dollar. With decimalization, Bermuda began issuing local coins, initially in denominations of 1 cent to 50 cents. The Bermuda Monetary Authority issued coins of Bermudian 1 cent to 50 cents and notes of Bermudian \$1 to \$50. In a later period, it replaced the \$1 note with a coin and started issuing a \$2 note as the lowest denomination and a \$100 note as the highest denomination. It also minted \$5 coins for some time starting in 1983.
- Bermudian \$1 = 0.818513 grams gold (inoperative; really equal to US\$1), 31 July 1972 to 21 May 1981. The United Kingdom had floated the pound sterling on 23 June 1972. On 28 July 1972, the governor issued an order setting the new parity of the Bermuda dollar at 0.818513 grams of fine gold, equal at the time to the parity of the U.S. dollar (BMA annual report 1994: 8). It was thought advantageous to make the Bermuda dollar equal to the U.S. dollar because of importance of American tourists to the economy. In the weeks after the pound sterling floated in June 1972, the Bermuda dollar became worth more than the U.S. dollar, to the disadvantage of

American tourists and the confusion of local retailers. Bermuda therefore in effect switched to the U.S. dollar as the anchor currency because of its strong trade and financial links with the United States. The reference in legislation to gold was in reality inoperative, because the Bermuda Monetary Authority, like other monetary authorities at the time, made no exchanges of its currency into gold. Instead, the dollar was the anchor currency (Bermuda Monetary Authority annual report 1994: 8).

- 22 May 1981 to present, Bermudian \$1 = US\$1. The Bermudian Dollar Parity Order, 22 May 1981, established the parity of the Bermudian dollar as “equivalent to one dollar in the currency of the United States of America” and ceased reference to gold (Bermuda Monetary Authority annual report 1994: 10).

We found no information about commission fees the Currency Commissioners charged, but we suspect that they existed in the past because they were common at the time. We have seen no mention of any commission fees charged by the Bermuda Monetary Authority during its existence, but the government has imposed foreign exchange taxes; see the “Deviations from orthodoxy” section below. We have no information about the minimum size required for currency exchanges.

Financial year; sources of data

We think that the financial year for the commissioners of currency was the calendar year, but some of the colonial annual reports speak of the first issue of currency as having occurred in 1914 (Bermuda annual report 1919: 6). Since the issue began on 1 March 1915, referring to it as 1914 only makes sense if March 1915 was part of the 1914 financial year.

The financial year for the Bermuda Monetary Authority is the calendar year, January 1 to December 31.

We have copies of the relevant sections of all Bermuda colonial annual published from 1915 to 1962. There is then a gap in our coverage from 1963 onward. We are missing the early annual reports of the Bermuda Monetary Authority, from 1969 to 1976, but have all annual reports from 1977 to the present. Recent reports are available on its Web site. The annual report for 2003 is missing from the Web site as of 2 November 2014, though we have it.

The Bermuda Monetary Authority’s annual report began showing a graph of monthly currency circulation but not the specific numbers in 1977, and began showing monthly figures in 1992 (BMA annual report 1977: 23; 1992: 22-23).

The Bermuda Monetary Authority publishes some monthly and quarterly monetary data, but it apparently only shows recent figures, deleting old ones, and there is no online database, so it is hard to tell how far back high-frequency data go. Starting in 1986, apparently, the Bermuda Monetary Authority began publishing its *Quarterly Report and Accounts*.

Other high-frequency data may exist in the government gazette, which we did not search.

The International Monetary Fund’s *International Financial Statistics* database does not cover balance sheet data of the monetary authority for Bermuda.

Remarks on the balance sheet

The colonial annual reports provide little balance sheet information.

The General Reserve on the liability side of the balance sheet is a kind of account for surplus.

1977: The Federal Reserve Bank of New York mistakenly credited the Authority with \$1 million on 27 December 1977 and did not correct the error until 4 January 1978, thereby affecting the year-end balance sheet (BMA annual report 1977: 18).

2004: This is the first annual report to specify that the line on the asset side of the balance sheet for “term deposits” is for deposits denominated in Bermudian dollars (BMA annual report 2004: 65). On this basis, we have retrospectively classified term deposits as domestic assets from the first time they appear on the balance sheet.

2008: Annual report lists U.S. dollar term deposits for the first time (BMA annual report 2008: 76).

Remarks on the income and expenditure statement

The colonial annual reports provide no information on income and expenditures. The annual reports of the Bermuda Monetary Authority do provide such information.

2002: Income and expenses increased substantially as the Bermuda Monetary Authority took over regulation of insurance companies from the Ministry of Finance. Higher income that the Authority and not the Ministry now collected licensing and application fees from insurance companies, while higher expenses reflected that former Ministry staff regulating insurance were now on the payroll of the Authority. The report also remarks that it was the practice in recent years to pay half of the Authority's net income to the Consolidated Fund of the government (BMA 2002 annual report: 8).

Remarks on other accounts and data

The Bermuda Monetary Authority has published a statement of cash flows since its 1986 annual report (BMA annual report 1986: 20). We do not show it.

The Bermuda Monetary Authority's annual report contains various economic and financial data on an annual basis. These include balance of payments estimates (first published in 1977, dating back to 1976) and the consolidated balance sheet of banks and deposit companies, all on an annual basis (BMA annual report 1977: 10, 21-22; 1978: 7). The 1979 report shows banks' exports of U.S. notes for the first time, though the Authority cautions that exports cannot be taken as a measure of the level or velocity of circulation of U.S. dollars (BMA annual report 1979: 5, Appendix Table 6). The 1979 report shows an estimate of money supply for the first time (BMA annual report 1979: Appendix Table 5). The 1980 report shows GDP estimates starting in the 1976/1976 financial year, although I assume the government statistician began calculating such an estimate well before (BMA annual report 1980: 5).

The Bermuda Monetary Authority also publishes a quarterly bulletin containing statistics.

Deviations from orthodoxy

Reserve ratio

Our data indicate that from the start of the currency board system in 1915 through 1917, the reserve ratio of foreign assets to the monetary base was well below 100%. In some later years the ratio has also been below 100%, but only modestly below, and not persistently.

Exchange controls

1939: Bermuda introduced exchange control in 1939 (Bermuda Monetary Authority annual report 1990: 30), shortly after the Second World War broke out in Europe. Controls applied to transactions outside the sterling area and did not affect the free exchangeability of Bermudian currency into the pound sterling, the anchor currency, so the currency board remained orthodox as we define it.

1972: After Bermuda left the sterling area and switched to the U.S. dollar as its anchor currency in mid 1972, it retained exchange control even so to prevent capital flight that otherwise would have occurred because of a legally imposed ceiling of 7% on interest rates, imposed by Bermuda, Interest Act of 1861. Hence the system was no longer an orthodox currency board. The Bermuda Monetary Authority took assumed responsibility for exchange control (BMA annual report 2008: 4); formerly, the Ministry of Finance was responsible. The Exchange Control Act, 1972, was the relevant legislation (BMA annual report 1979: 6).

1974: An amendment to the Bermuda Monetary Authority Act of (or perhaps effective on) 1 April 1974 give the BMA further responsibility for exchange control (BMA annual report 1994: 9).

1980: The Bermuda Monetary Authority raised the amounts of foreign currency that Bermudians could purchase for travel and school fees abroad, to take account of the effects of inflation in previous years. On the other hand, it tightened limits on overseas investment, by setting a quarterly rather than an annual maximum amount (BMA annual report 1980: 12). The quarterly restriction was removed at the end of June 1981 (BMA annual report 1994: 10). Exchange control regulations required that local

transactions be in Bermuda dollars. The 1982 annual report defends exchange control as preserving Bermuda's international business reputation by providing for screening of new companies and subsequent transfers of shares involving nonresidents (BMA annual report 1982: 15).

1987: Exchange controls were relaxed in September. For example, the travel allowance was increased from Bermuda \$3,000 per person per trip to Bermuda \$5,000 (BMA annual report 1987: 20).

1993: Some loosening of exchange controls occurred. The Bermuda Monetary Authority claimed that Bermuda's exchange controls could now be fairly described as a system of capital controls; with few exceptions, residents may make current payments with minimal formality (BMA annual report 1993: 27-28).

1996: A further loosening of exchange controls occurred effective 1 December 1996. Bermuda residents were permitted to borrow in foreign currency to refinance residential property in Bermuda (BMA annual report 1996: 5, 32).

1997: In February 1997 the BMA issued a notice to authorized dealers in foreign exchange informing them that certain controls would be eliminated at the end of 1997. During the year, exchange control was nearly phased out, so that it occupied only one staff member part-time. For instance, the annual limit of \$25,000 per person for year on foreign investments by Bermudians was withdrawn at the end of 1997, and authorized dealers in foreign exchange were required only to seek the BMA's concurrence for conversions exceeding \$500,000.

1998: Effective 19 January 1998, purchases of foreign exchange for travel abroad were no longer subject to the previous \$3,000 limit per trip (BMA annual report 1997: 38, 41). Under the Proceeds of Crime Act 1997, operational 19 January 1998, the BMA allowed authorized foreign exchange dealers to approve purchases of foreign cash and travelers checks without limit. A one-page notice dated January 1998 was issued that summarized all transactions prohibited from an exchange control perspective. The rationale of the prohibitions was not to preserve foreign exchange reserves, but to assure the continuing use of the Bermuda dollar domestically (BMA annual report 1998: 38). Although the Bermuda Monetary Authority considers that exchange controls effectively ceased, we do not, because the foreign exchange purchase tax remained, and persists today.

Foreign exchange tax

1975: The Overseas Investment Tax Act 1975 came into force on 31 May 1975 (BMA annual report 1994: 9; Bermuda Laws Online indicates this was Law No. 35 of 1975). The tax seems to have been 2%. It applied only to exchanges of Bermuda dollars for foreign currency (BMA annual report 1982: 16).

1979: The government raised the Overseas Investment Tax to 10% from its former level of 5% on 23 February 1979 to increase government revenue and discourage capital outflows brought about by high international interest rates (BMA annual report 1978: 4; the regulation was Bermuda Regulation No. 10 of 1979 [BR 10/1979]). Legislation of 1986 changed the name of the tax to the Foreign Currency Purchase Tax BMA annual report 1986: 15).

1981: From 1 January to 30 June 1981, the individual annual overseas investment allowance was changed from \$25,000 per year to \$6,250 per quarter to counter the effect of high international interest rates and seasonal effects on capital flows. The allowance was raised to the old level on 1 July (BMA annual report 1981: 42).

1986: A change in the law converted the tax on foreign investment was converted a tax on the purchase of foreign currency, still at 10%, with exceptions for travel, personal imports, and some other purposes (BMA annual report 1986: 15).

1992: The government budget introduced a Foreign Currency Purchase Tax of 0.25% on many transactions formerly exempt from the 10% rate. At the same time, it loosened the application requirements for obtaining foreign currency (BMA annual report 1992: 27).

1994: The government reduced the Foreign Currency Purchase Tax to a uniform level of 0.25%, deemed effective 14 February 1994 (Bermuda, Foreign Currency Purchase Tax Amendment Act, No. 3 of 1994, assented 21 March 1994, in Bermuda Laws Online).

2007: : The government raised the tax to 0.5%, effective 1 April 2007 (Bermuda, Foreign Currency Purchase Tax Amendment Act, No. 5 of 2007, assented 26 March 1994, in Bermuda Laws Online).

2010: The government increased the Foreign Currency Purchase Tax from 0.5% to 1%, effective 1 April 2010 (Bermuda, Foreign Currency Purchase Tax Amendment Act, No. 13 of 2010, in Bermuda Laws Online). As of 2014 the rate continues to exist.

Interest rates

1975: The Interest and Credit Charges (Regulations) Act 1975, which came into force on 1 September 1975, allowed the Bermuda Monetary Authority to prescribe maximum rates of interest with the approval of the minister of finance and to prohibit or set maximum credit charges. The act left the old maximum rate of 7% in force in the meantime (Bermuda Monetary Authority annual report 1975: 2; 1994: 9). The rate applied only to Bermuda dollars (BMA annual report 1982: 16). Controls were liberalized over the years as U.S. dollar interest rates fell from their high nominal levels of early 1980s. The Bermuda Monetary Authority has allowed certain loans and deposits to be exempt from the ceiling (see, for example, Bermuda Monetary Authority annual report 1994: 11).

1978: In 1978, during a period of high inflation and high nominal interest rates in the United States and in Eurodollar markets, there was a squeeze on Bermudian dollar liquidity as a result of the interest rate ceiling (BMA annual report 1978: 1).

1982: The Interest and Credit Charges (Deposit Companies Special Interest Rate) Order 1982, issued in March, exempted deposit companies' deposits with banks and with the BMA, up to 25% of the companies' deposit liabilities, from the 7% interest rate ceiling (BMA annual report 1982: 24).

1994: The Interest and Credit Charges (Regulation) Amendment Act 1994, assented 22 March 1994, eliminated interest rate ceilings effective 1 April 1994.

Supervisory powers

A July 1983 amendment to the Companies Act, 1981 gave the Bermuda Monetary Authority the authority for vetting permit companies (BMA annual report 1984: 14). The Bermuda Monetary Authority Amendment Act 1990, assented by the governor on 12 July 1990, gave the Bermuda Monetary Authority greater supervisory powers (BMA annual report 1990: 4, 27, 29, 35). The Banks and Deposit Companies Act 1999, the Investment Business Act 1998, and the Bermuda Monetary Authority Amendment Act 1999 transferred licensing powers and the exercise of powers to intervene to the Bermuda Monetary Authority effective 1 January 2000, rather than the Minister of Finance exercising those powers as had previously been the case (BMA annual report 1999: 6, 7).

Reserves of the Bermuda Monetary Authority

1917: Figures in the colonial annual report indicate that the redemption fund was equal to roughly 80% of the outstanding note issue (Bermuda annual report 1917: 4). By 1918 the guarantee fund exceeded the note issue (Bermuda annual report 1918: 6, 8). It is evident from the subsequent growth of the fund that it was not just for backing the note issue, but could be used for other purposes also (Bermuda annual report 1927: 5).

1969: The Bermuda Monetary Authority Act 1969 required the Authority to keep an account called General Reserve equal to at least 15% of demand liabilities (BMA annual report 1977: 18). Currently (2011) the law provides that if the General Reserve is less than 10%, the whole of the Bermuda Monetary Authority's profits shall go to it, but if the General Reserve exceeds 15%, the Authority requires the permission of the Minister of Finance to add to it.

1990: The Bermuda Monetary Authority Amendment Act 1990, assented by the governor on 12 July 1990, gave the Bermuda Monetary Authority powers to hold a wider range of assets (BMA annual report 1990: 4, 27, 29, 35). In particular, the law cut the minimum ratio of foreign assets to 50% (inferred from the Bermuda Monetary Authority Act 1969, section 19, in the Consolidated Laws section of Bermuda Laws online).

Other remarks

We thank Andrew Rosenberg for digitizing most of the data from the era before the Bermuda Monetary Authority.

1915: A shortage of currency and uncertain financial conditions related to the outbreak of World War I led the government to pass the Government Notes Act, 1915, authorizing the government to issue up to £20,000 in £1 notes and making the notes legal tender. On 1 March 1915, £8,000 of the notes were issued, and in June a further £10,000. Under authority of the Government Notes Redemption Act, Act No. 22 of 1915, the proceeds of the June issue were invested in British government securities as security against their eventual redemption. British notes were also made legal tender under the Currency Act, 1915. U.S. dollar notes were also widely accepted because of the U.S. tourist trade. British silver coins were unlimited legal tender. Bills of exchange on London issued by the British Treasury in connection with British military expenses in Bermuda formed the basis of exchange with the outside world (Bermuda annual report 1915: 6).

1954: The colonial annual report remarks, “United Kingdom notes are not legal tender in Bermuda owing to the continued operation of currency and exchange control regulations which were instituted during the war. The currency consists of Bermuda government notes in denominations of £5, £1, 10 shillings and 5shillings and United Kingdom metal coinage” (Bermuda annual report 1953 & 1954: 15).

1956: The commission fees the two local banks charged for converting Bermuda pounds into sterling, or the reverse, were 6 pence on drafts of £2.50 or less, 1% on the first £500, 0.75% on the next £2,000, and 0.5% on the excess over £2,000. An additional charge of 2 shillings (£0.10) was levied on telegraphic transfers (Bermuda annual report 1955 & 1956: 23).

1962: “Although United Kingdom notes are not legal tender in Bermuda, they are now accepted freely by the banks and in most trading establishments” (Bermuda annual report 1961 & 1962: 18).

1972: On 30 June 1972 the Bermuda Monetary Authority Act 1969 was amended to allow the parity of the Bermuda dollar to be defined in terms of any currency or gold, not just sterling as before (BMA annual report 1994: 8).

1973: The 1968 agreement with the British government largely guaranteeing sterling reserves against devaluation expired on 24 September 1973. Within a little over a month, the proportion of sterling in the BMA’s reserves fell from 65% to less than 13% (BMA annual report 1994: 9).

1975: The Bermuda Provident Bank failed or was near failure and was taken over by the government in 1975 (BMA annual report 1978: 5). Government administration ceased on 9 November 1979. The depositors and other creditors received 75 cents on the dollar (BMA annual report 1979: 7-8).

1979: There was apparently an interest rate cartel among the four banks and the deposit companies from 30 March 1979 to 31 October 1979. The agreement then expired but interest rates did not change. Rates were a maximum of 5.5% on demand deposits and 6.5% on one-year deposits (BMA annual report 1979: 3).

1979: In late October 1979 it became apparent to the Bermuda Monetary Authority that Rego Trust and Savings Limited, a deposit-taking company, was encountering trouble. On 9 November 1979 the Minister of Finance notified the company that he had reason to believe its license should be withdrawn, and he prohibited it from accepting further deposits. When the minister’s action became known to the public a run on the company occurred. On 3 December the company stopped paying withdrawal requests and on 7 December its license was withdrawn and the Bermuda Monetary Authority took over its administration (BMA annual report 1979: 17).

1981: The Companies Act of 1981 gave the Bermuda Monetary Authority responsibility for vetting all company applications on behalf of the Ministry of Finance (BMA annual report 2008: 5). The Banks and Deposit Companies Act 1999, which came into effect on 1 January 2000, expanded the supervisory powers of the Bermuda Monetary Authority, giving it full licensing, supervision and enforcement powers in respect of persons carrying on deposit-taking business in or from within Bermuda (BMA annual report 2000: 25). Effective at the start of 2002, the Bermuda Monetary Authority also became the regulator of Bermuda’s internationally significant insurance sector, a role the Ministry of

Finance previously performed. The effect was to make the Bermuda Monetary Authority the regulator of the whole financial services sector (BMA annual report 2001: 6, 11).

1990: The Bermuda Monetary Authority invested some funds for the government, acting as the government's money manager (BMA annual report 1990: 35).

1992: The Bermuda Monetary Authority clarified its position on the use of U.S. dollars. The use of U.S. dollars, including exchanging higher-denomination U.S. dollar notes for lower-denomination ones, was acceptable in certain sectors catering to tourists, but otherwise businesses were to refrain from selling U.S. dollars for Bermuda dollars without specific permission. It was hoped that this step would increase demand for Bermuda currency (BMA annual report 1992: 27).

1994: The Bermuda Monetary Authority's annual report of this year contains a chronology of the Authority's first 25 years (BMA annual report 1994: 8-15).

U.S. currency has circulated widely in Bermuda for many years (BMA annual report 1978: 4; 2005: 65). It is brought mainly by U.S. tourists and circulates the Bermudian dollar is equal to the U.S. dollar.

2008: One of Bermuda's largest financial institutions, Butterfield Bank, announced a public offering of preferred shares to raise the additional capital to meet the additional capital buffer requirement. Recognizing that this capital raising was taking place in a challenging investment environment, the government decided to provide conditional share purchase and guarantee, should the offering not be fully subscribed by the private sector (BMA annual report 2008: 17).

2011: In July Bermuda passed a deposit insurance law (press reports).

Deposit companies make mortgages. Unlike banks, they do not have access to foreign currency deposits and so do not have the ability to lend foreign currency to the general public (BMA annual report 1989: 9).

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Spreadsheets

Annual done for now (we still need data for 1962-1975); high-frequency data remain to be investigated.

Bosnia and Herzegovina

Name, headquarters, dates, membership

Centralna banka Bosne i Hercegovine (Central Bank of Bosnia and Herzegovina, or CBBH), headquarters Sarajevo, Bosnia and Herzegovina. Established by law on 28 June 1997; began operations on 11 August 1997, succeeding the National Bank of Bosnia in the Bosnian areas, the Croatian National Bank in the Croat areas, and the National Bank of Yugoslavia in the Serbian areas. The reason for establishing the Central Bank, and constraining it with currency board-type rules, was to provide a trustworthy locally issued currency free from sectarian influence as Bosnia was emerging from a bloody civil war. The episode is still continuing.

Legislation

- General Framework Agreement for Peace in Bosnia and Herzegovina (Dayton Agreement, also called Dayton-Paris Agreement), 1995, Article 7: Provided for the establishment of a Central Bank of Bosnia and Herzegovina.
- Bosnia, Law on the Central Bank of Bosnia and Herzegovina, 20 June 1997: Established the Central Bank of Bosnia and Herzegovina effective eight days after passage and provided details of its structure.

Exchange rate and currency system

The Bosnian convertible marka (konvertibilna marka, abbreviated KM) is a decimal currency, divided into 100 fenings (whose name comes from the German pfennig, the subdivision of the former German mark). Its exchange rates have been as follows:

- 11 August 1997-31 December 2001: 1 Bosnian convertible marka = 1 German mark. The Bosnian convertible mark replaced the former currency, the Bosnian dinar, at 1 convertible marka = 100 dinars. Initially the old notes, issued by the predecessor National Bank of Bosnia and Herzegovina, continued to be used. The Bosnian dinar had also been tied to the German mark. It had been used in the Bosniak areas. The Croatian areas had used the Croatian kuna and the Serbian areas had used the Serbian dinar.
- 1 January 2002-present (2011): 1.95583 Bosnian convertible marka = 1 euro, also expressed as 1 Bosnian convertible mark = 0.51129 euro (CBBH annual report 2001: 10). The German mark ceased to be the anchor currency when the euro replaced the German mark. The exchange rate with the euro was the rate implied by the cross-rate between the German mark and the euro.

There is no commission fee (Law on the Central Bank of Bosnia and Herzegovina, Article 33).
[Minimum exchange amount?]

The Central Bank of Bosnia and Herzegovina has issued coins of 5 fenings to 5 marka and notes of 50 fenings to 200 marka (CBBH Web site, BH Currency > “KM Banknotes and Coins” page).

Financial year; sources of data

The financial year of the Central Bank of Bosnia and Herzegovina is the calendar year.

Copies of all the annual reports of the Central Bank of Bosnia and Herzegovina are available on its Web site. The first report, for 1999, also covers 1997 and 1998.

The International Monetary Fund’s *International Financial Statistics* database begins covering Bosnia and Herzegovina in 1997 for annual and monthly data, although see the “Other remarks” section below. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

1997: We take items from the December 1997 condensed monthly balance sheet, since the annual report contains no full balance sheet. The original figures are expressed in millions of Bosnian convertible marks are rounded to the nearest 100,000 marks. We have converted the data to unit convertible marks. Because of rounding, liabilities do not quite equal assets, so we have added a line to account for the effects of rounding and make them balance.

2002: Certain items that were previously on the balance sheet were shifted off the balance sheet. We list continue to list them as memo items.

2006: From this year onward the financial statements show amounts in thousands of Bosnian convertible marka. We have converted the data to unit convertible marka for compatibility with earlier statements.

Remarks on the income and expenditure statement

For clarity, we have placed interest expenses with other expenditures rather than leaving it on the income side of the balance sheet as the original statements do.

1997: No data because the first annual report, covering 1999, has data for 1998 but not 1997.

2006: From this year onward the financial statements show amounts in thousands of Bosnian convertible marka. We have converted the data to unit convertible marka for compatibility with earlier statements.

2007: From this year onward the financial statements show expenditures with a negative sign. We continue to show them *without* a negative sign.

Remarks on other accounts and data

The annual report of the CBBH shows some bank aggregates and other data from the end of 1999 that do not start appearing in the International Monetary Fund's *International Financial Statistics* database until the end of 2001.

Deviations from orthodoxy

The CBBH also acts as banker and fiscal agent to the government (Bosnia, Law on the Central Bank of Bosnia and Herzegovina, 20 June 1997, articles 52, 54-55).

High-frequency data

The CBBH Web site shows condensed balance sheet information monthly from 11 August 1997.

Other remarks

Coats (2007: 12) describes the predecessor National Bank of Bosnia and Herzegovina as “basically following currency board rules already” before 1997.

The CBBH's organizational structure is in part determined by the need to balance power among three ethnic/religious groups (Bosnians, Croats, and Serbs).

Long-term bank loans in Bosnia and Herzegovina were typically indexed to a foreign currency (CBBH annual report 2009: 87).

Banks in Bosnia and Herzegovina face a minimum reserve requirement, which historically has been rare in currency board systems. The power of the CBBH to set such requirements of 10-15% is established by Bosnia, Law on the Central Bank of Bosnia and Herzegovina, 20 June 1997, article 36.

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Spreadsheets

Annual done; high-frequency available on the Web site of the Central Bank of Bosnia and Herzegovina.

British Caribbean Currency Board

Name, headquarters, dates, membership

Board of Commissioners of Currency, British Caribbean Territories (Eastern Group), also known as the British Caribbean Currency Board; headquarters Port of Spain, Trinidad.

Established 28 November 1950; began issuing notes 1 August 1951; began issuing coins October 1955; succeeded by the East Caribbean Currency Authority on 25 March 1965; last day before new currency design of East Caribbean Currency Authority was 5 October 1965; liquidated 30 June 1967 (BCCB annual report 1951: 1; 1955: 9, 11; ECCA annual report 1966: 3; 1968: 9). The board was established as part of a movement toward a federation of Britain's West Indian colonies. On 1 August 1951 the Board absorbed the note issues of the governments of Barbados, British Guiana (now Guyana), and Trinidad and Tobago, which had operated on a currency board basis. On 15 August 1951 the Board began issuing its own design of notes and banks ceased to issue or reissue their notes. Barclays Bank (Dominion, Colonial and Overseas), successor to the Colonial Bank, voluntarily surrendered the right to issue notes granted in its British charter as of 15 August 1951, and became the agent for the currency board. The other note-issuing banks in the region (Bank of Nova Scotia, Canadian Bank of Commerce, and Royal Bank of Canada) had been prohibited from issuing notes in 1950 by legislation in the colonies that later established the currency board (BCCB annual report 1951: 1-2). The currency board issued its first coins on 15 November 1955; until then, the colonies used British coins (BCCB annual report 1955: 6).

The following territories belonged to the British Caribbean Currency Board: Antigua and Barbuda, Barbados, British Guiana [now Guyana], Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago. Antigua, Montserrat, and Saint Kitts were also known as the Leeward Islands; Dominica, Grenada, Saint Lucia, and Saint Vincent were also known as the Windward Islands. Trinidad and Tobago was the first to leave the Board, establishing a central bank that began operations on 14 December 1964. Guyana also prepared to establish a central bank, which began operations on 15 November 1965. The remaining countries, other than Grenada, which did not join right away, established the East Caribbean Currency Authority to succeed the British Caribbean Currency Board. It began operations on 26 March 1965. The East Caribbean Currency Authority was what one might call a monetary institute, with powers greater than those of an orthodox currency board but less than those of a typical central bank, and the desire for a body with such a range of powers seems to have been the reason for its establishment (ECCA annual report 1966: 6).

Legislation

- British Caribbean Currency Agreement 1950: Ended bank or local government issue of notes in member colonies in favor of participation in the multicolonial British Caribbean Currency Board. The agreement was implemented through additional legislation in the member territories.
- British Caribbean Currency Agreement, signed 12 December 1964: Made arrangements for the remaining member territories after Trinidad and Tobago and Guyana (formerly British Guiana) had left.
- East Caribbean Currency Agreement, January 1965: Replaced the British Caribbean Currency Board with the East Caribbean Currency Authority, an institution that was not a full-fledged central bank but that had more discretionary powers than the currency board. The agreement was implemented through additional legislation in the member territories.

Exchange rate and currency system

The exchange rate throughout the existence of the British Caribbean Currency Board was British West Indies \$4.80 = £1 sterling.

From calculations of balance sheet data it is apparent that the commission fee was 0.5%. The minimum amount for exchange into sterling was West Indies \$25,000 (BCCB annual report 1955: 11).

For coins, which the Board first issued in 1955, regulations of 1957 permitted the Board to accept sums of less than West Indies \$25,000 at its discretion (BCCB annual report 1957: 11).

The British West Indies dollar was a decimal currency, divided into 100 cents. The exchange rate was such that 2 West Indies cents = 1 penny (pence) sterling, or West Indies \$1 = 4 shillings 2 pence sterling. The Board issued coins of ½ cent to 50 cents and notes of \$1 to \$100.

Financial year; sources of data

The British Caribbean Currency Board's financial year was the calendar year, January 1 to December 31.

We have copies of all the British Caribbean Currency Board's annual reports.

The *Trinidad Royal Gazette* (later renamed the *Trinidad and Tobago Gazette*) contains a monthly statement of note and coin circulation by the British Caribbean Currency Board and a semiannual abstract. We are missing data for the following months: August-October 1951; December 1951; April and August 1952; all months of 1953; November 1954; May, June and September 1955; February 1956 (select data); December 1956-November 1958; June 1959; January-November 1960; March, June and July 1961; February and June 1962; November 1962 (date and page information); February 1964; July 1965.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet data of British Caribbean Currency Board.

Remarks on the balance sheet

See below on the Provident Fund.

Remarks on the income and expenditure statement

The Income Account received all revenue from investments and fees and was the source for all payments connected with the administration of the British Caribbean Currency Board.

The various accounts associated with the Provident Fund recorded changes to its position.

Remarks on other accounts and data

Currency Fund: Account in which the British Caribbean Currency Board held investments for the redemption of its currency.

Currency Surplus Account (1953-1966): Recorded payments of profits to member governments.

Provident Fund (1957-1966): Established on 1 January 1957 (BCCB annual report 1957: 19). Employees contributed to the fund and could withdraw funds from it for retirement or inability to work. We exclude its balance sheet from our standardized balance sheet because the Fund was not designed to have any role in monetary policy.

Deviations from orthodoxy

In 1960 the British Caribbean Currency Board was allowed to hold up to West Indies \$12 million in the securities of member territories. The first year the regulation was in effect, the Board held a market value of \$9,847,050, or almost 10% of the Currency Fund of West Indies \$100,291,709.60 (BCCB annual report 1960: 2-3, 16, 18). An appendix to the annual report lists the values of the individual local securities in *sterling*, not in West Indies dollars, so readers who look at the annual reports should be careful not to mix up currencies.

In 1961 there was a question whether exchange control legislation in British Guiana applied to transactions involving the British Caribbean Currency Board (BCCB annual report 1961: 3). British Guiana enacted an amendment to the legislation on 17 October 1962 and advised the Board that persons wishing to redeem West Indies dollars for sterling required a permit from the Guiana Minister of Finance (BCCB annual report 1962: 4). For the statistical consequences, see "Other remarks" below for 1964.

Other remarks

We thank Brandon Dixon for digitizing the high-frequency data.

1952: The annual report mentions forgeries for the first time (BCCB annual report 1952: 4). Judging from subsequent annual reports, forgeries were a small but persistent problem. The annual report for this year also shows for the first time notes issued and notes “in active circulation,” which we presume means held by the public, with the balance being held by banks.

1955: Notes issued by the governments of Barbados, British Guiana, and Trinidad and Tobago were demonetized on 2 January 1955. The British Caribbean Currency Board issued its first coins on 15 November 1955 to replace British coins. On 1 October 1955, notes issued by the government of Jamaica became legal tender in the territories of the British Caribbean Currency Board and were interchangeable at a parity of Jamaican £1 = West Indies \$4.80. Similarly, British Caribbean Currency Board notes became legal tender in Jamaica under the same conditions from that date (BCCB annual report 1955: 5, 6, 8, 11).

1957: The annual report starts to state the amount of notes and coins issued and redeemed for sterling in London. It also starts to show the average note and coin circulation for each member territory (BCCB annual report 1957: 8, 14). The figures for the averages imply that data on notes and coins in circulation exist more frequently than the annual figures published in the annual reports.

1962: The annual report starts to show redemptions and issues in individual territories, going back to 1958 (BCCB annual report 1962: 10).

1963: The report observes that figures of estimated circulation of notes and coins in British Guiana and Saint Kitts are likely to be misleading (BCCB annual report 1963: 1) 1964: The monthly Statement of Circulation for August remarks that “As a result of Exchange Control legislation in British Guiana, movements of currency notes by travelers from that Territory to other Territories participating in the Currency Agreement appear to have become abnormal since 1962 and the circulation in some Territories, on the basis of issues less withdrawals, adjusted to take account of Bank transfers, has in consequences become unrealistic and in fact misleading. It will be noted that the value of notes withdrawn at St. Kitts exceeded those issued in that Territory” (*Trinidad and Tobago Gazette*, 27 August 1964: 721).

1965: Notes issued by the governments of Barbados, British Guiana, and Trinidad and Tobago before the British Caribbean Currency Board existed were demonetized from 2 January 1965 (BCCB annual report 1964: 1) The successor East Caribbean Currency Authority replaced notes issued by the British Caribbean Currency Board with notes of a new design starting on 6 October 1965, though it did not replace the coins. British coin remained legal tender in all member territories but was little used (ECCA annual report 1965: 4, 5).

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Spreadsheets

Annual done; high-frequency done for now (some data may not be easily available in the USA).

British Guiana (now Guyana)

Name, headquarters, dates, membership

[British Guiana] Commissioners of Currency, headquarters Georgetown, British Guiana (now Guyana).

The Commissioners of Currency issued their first notes in January 1917 (British Guiana annual report 1921: 9). We conjecture that the reason for establishing the note issue was to alleviate a shortage of coins during World War I, since the notes were limited to denominations of \$1 and \$2. A multicolonial currency board, the Board of Commissioners of Currency, British Caribbean Territories (Eastern Group), also known as the British Caribbean Currency Board (headquarters Port of Spain, Trinidad) began issuing notes on 1 August 1951, succeeding local note issues in Barbados, British Guiana (today Guyana), and Trinidad and Tobago. Those colonies joined the board as part of a movement toward possible political federation.

Legislation

- British Guiana, Government Currency Notes Ordinance, No. 16, 30 June 1915: Established the Commissioners of Currency. Notes were redeemable in gold or silver coin. The reserve was to consist at least 50% of coin unless a lesser amount was authorized by the British Secretary of State for the Colonies.
- British Guiana, Public Loan Ordinance, No. 6, 6 May 1916: Allowed the government to issue a loan for \$2 million. The Commissioners of Currency held local securities issued pursuant to this ordinance, which is why we mention it here although it did not directly concern the Commissioners of Currency.
- British Guiana, Government Currency Notes Ordinance, No. 7, 26 April 1933: Amalgamated the Depreciation Fund with the Note Guarantee Fund.
- British Guiana, Government Currency Notes Ordinance, No. 14, 1 May 1937: Replaced the 1915 ordinance. Established a sterling exchange rather than a coin standard.
- British Caribbean Currency Agreement 1950 and British Guiana, Currency Ordinance, No. 20 of 1950: Ended local government issue of notes in favor of participation in the multicolonial British Caribbean Currency Board.

Exchange rate and currency system

The exchange rate was West Indian (British Guiana) \$4.80 = £1 sterling throughout the existence of the currency board (see, for instance, British Guiana annual report 1917: 3). By that rate, 2 West Indies cents = 1 penny (pence) sterling.

We found no information about commission fees the currency board charged, but we suspect that they existed because they were common at the time. The annual reports, not yet examined, may have information.

The West Indian dollar was a decimal currency, divided into 100 cents.

The Commissioners of Currency issued notes of West Indian \$1 and \$2. The Royal Bank of Canada and the Colonial Bank (later absorbed into Barclay's Bank [Dominion, Colonial and Overseas]) issued notes of West Indian \$5, \$20, and \$100. They were not permitted to issue notes for less than \$5 because a longstanding British colonial policy prohibited banks from issuing notes for less than £1. British Guiana used British coins. We think that the Royal Bank of Canada ceased issuance in 1945, when it ceased issuing in Canada. Barclays issued notes until the British Caribbean Currency Board succeeded the British Guiana Commissioners of Currency on 1 August 1951; then Barclays voluntarily renounced further issuance (British Guiana annual report 1952: 52).

British Guiana had no local issue of coins except for an old issue of local 4-penny coins, called groats. It used British currency; U.S. gold coins and silver dollars were also legal tender (British Guiana annual report 1917: 3; 1920: 3-4). British Guiana continued to use British coins until British Caribbean

Currency Board coins began to be issued to replace them. The exchange of British Caribbean coins for British coins with banks began on 29 October 1955 and with the public from 15 November 1955 (British Guiana annual report 1955: 61).

Financial year; sources of data

The financial year of Commissioners of Currency was apparently the calendar year, January 1 to December 31.

We have copies of the annual reports of the Commissioners of Currency from 1917 to 1948, except 1918. We are uncertain whether reports were published for 1949 and 1950.

We have copies of the relevant sections of all British Guiana colonial annual reports published from 1914-1915 to 1961. Colonial annual reports contained some annual data.

Data were published in the British Guiana gazette monthly from 1917 to 1937 and semiannually from 1937 to 1951. We have not yet made a full inventory of the statements we have, but are missing at least all statements before December 1922 and the statement of June 1939.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet of the monetary authority in Guyana (then called British Guiana) during the period of its local currency board.

Remarks on the balance sheet

The balance sheet does not contain an item for net worth to balance assets and liabilities, so we have calculated net worth ourselves and inserted a line.

Remarks on the income and expenditure statement

The British Guiana gazette provides some information on the expenditures of the Commissioners of Currency in the annual account of government spending.

Remarks on other accounts and data

Colonial annual reports after World War II contain some information on bank interest rates and market exchange rates for the pound sterling.

Deviations from orthodoxy

British Guiana's overall monetary system was a combination of a currency board and free banking, because banks issued notes alongside the currency board, as mentioned above.

By the 1915 ordinance establishing the currency board, up to 20% of the board's assets could be held in British Guiana securities. The board did in fact hold such securities. [Data on "how much" will come from the spreadsheet, when complete.]

As in other British colonies, Defence Finance Regulations came into effect near the start of World War II and continued after the war (British Guiana annual report 1948: 35). They were not a deviation from currency board orthodoxy because imposed no limits on exchanges into the anchor currency, the pound sterling, although they did impose exchange controls against currencies outside the sterling area.

Other remarks

We thank Andrew Rosenberg for digitizing the data from the colonial annual report. We thank [name(s) to come] for digitizing the data from the annual reports and the British Guiana gazette.

1930: The colonial annual report of this year is the first to specify that "The Government Note Issue of fully backed by a Note Guarantee Fund, two-thirds of which are invested and one-third retained in coin. A Depreciation Fund equivalent to 10 per cent. of the invested portion of the Note Guarantee Fund provides for any depreciation that may occur in the investments of the Note Depreciation Fund" (British Guiana annual report 1930: 5). We suspect that the coin portion dropped to near zero before the end of the currency board in 1951, as was the case in other colonies with similar arrangements at the time, but we have not seen the British Guiana gazette, which might provide confirmation.

1951: On 1 August 1951 the British Caribbean Currency Board took over the British Guiana government note issue (British Guiana annual report 1951: 43). On 15 August the British Caribbean Currency Board began withdrawing notes of governments of member territories. Also on 15 August, Barclays Bank voluntarily ceased issuing notes (BCCB annual report 1951: 1). It seems the Royal Bank of Canada had ceased some time before—perhaps in 1945, when it had ceased issuing notes in Canada

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Spreadsheets

Annual and high-frequency under construction.

British Honduras (now Belize)

Name, headquarters, dates, membership

Board of Commissioners of Currency, headquarters Belize City, British Honduras (later Belize).

Began operations on 15 October 1894 (British Honduras annual report 1894: 6), ceased on 31 December 1976. The Commissioners of Currency were established to issue a local note currency as part of a switch from the silver standard to the gold standard. At the time, the colony had no banks and no existing government issue of notes. Near the end of the life of the Commissioners of Currency, the Monetary Authority of Belize was established on 1 November 1976 and began as the exchange control authority on that date, but it did not take over the assets and liabilities of the currency board until 1 January 1977, so we date its effective beginning as a monetary authority from the latter date. The Monetary Authority was permitted to act as banker to the government, unlike the currency board. The reason for replacing the currency board was the government's desire for greater "monetary and fiscal management in the interests of the local economy" (Monetary Authority of Belize annual report 1977: 3; 15).

Legislation

- British Honduras, Law (Ordinance) No. 32 of 1894: Established the Board of Commissioners of Currency.
- British Honduras, British Honduras Currency Notes Ordinance, No. 1, 16 January 1937: Revised the law on the Board of Commissioners of Currency to place it on a "permanent" basis.
- Belize, ordinance of 1975 [number and name]: Allowed the Board to switch the anchor currency from sterling (Wyeth 1979: 36).
- Belize, Monetary Authority of Belize Ordinance, No. 9, assented 9 September 1976, gazetted 25 September 1976: Established the Monetary Authority of Belize, an institution that was not a full-fledged central bank but that had more discretionary powers than the currency board.

Exchange rate and currency system

Before the currency board began, a British royal proclamation of 15 September 1887 established the silver Guatemalan dollar, also called the sol, as the standard of value. "The constant fluctuation in the value of the Guatemalan dollar [against gold-standard currencies] exercises a prejudicial and unhealthy influence on the trade of the Colony. An endeavor is made by the Government to neutralize the effect of such fluctuations in its own business by fixing annually the rate at which the dollar is to be accepted for the year, but the rates are often fallacious and do not correspond with the actual value of the dollar" (British Honduras annual report 1892: 11). The Treasury rating for the sol was higher than its exchange value, causing an erosion of customs revenue as silver depreciated against gold over time and hence the sol depreciated against the pound sterling (British Honduras annual report 1894: 3).

- 15 October 1894-30 December 1949: British Honduras \$1 = US\$1. British Honduras introduced its own currency, initially equal to 2 Guatemalan sols. Prices were not immediately adjusted in all cases, though, provoking discontent and a riot in Belize City on 16 December 1894 that was quelled by armed British sailors (British Honduras annual report 1894: 6-7). Ordinance No. 31 of 1894, concerning the currency, changed the standard of value as of 15 October 1894 and made the gold U.S. dollar the standard of value (British Honduras annual report 1894: 11).
- 31 December 1949-10 May 1976: British Honduras \$4 = £1 sterling (British Honduras annual report 1949: 18). The United Kingdom had devalued the pound sterling against the U.S. dollar on 18 September 1949. About British Honduras \$1.5 million would have been necessary to make good the fall in value of the Commissioners' sterling investments (Wyeth 1979: 27). Even though most trade was with the United States, British Honduras devalued. The legislature refused to pass the necessary legislation and the governor implemented it by decree (Wyeth 1979: 29). As a result of the devaluation, the first political groupings that eventually led to independence began.

There was a large capital outflow as speculators tried to beat the expected devaluation (Wyeth 1979: 30). The Commissioners lost almost British Honduras \$1 million from the devaluation (Wyeth 1979: 31).

- 11 May 1976-31 December 1976: Belize \$2 = US\$1 (Monetary Authority of Belize annual report 1977: 6). An ordinance of 1975 allowed the Board to switch the anchor currency from sterling (Wyeth 1979: 36). This was a period when the pound sterling was quite weak because of poor policy by the British government that resulted in relatively high inflation. The exchange rate persists to the present (2011).

The Commissioners of Currency seemed to have charged commission fees, but we found no details of how much they were (Wyeth 1979: 20).

The British Honduras (later Belize) dollar was a decimal currency divided into 100 cents.

Ordinance No. 31 of 1894 provided for a local coinage of 1 to 50 cents. British gold coins were also legal tender (British Honduras annual report 1894: 11). Until 1965 coins were a liability of the government generally rather than of the Commissioners of Currency specifically. Ordinance No. 32 of 1894 provided for a note issue. The Commissioners of Currency issued notes of Belize \$1 to \$100.

Apparently local silver coins were legal tender to any amount until 1924. On 21 April 1933 an ordinance to again make them legal tender to any amount received the assent of the British government, but apparently by 1938 the governor had not yet issued a proclamation bringing the ordinance into effect by the end of the year (British Honduras annual report 1933: 23; 1938: 28). In 1947 subsidiary silver coins (that is, those less than \$1, the only kind the Commissioners of Currency issued) were legal tender only up to \$10 (British Honduras annual report 1947: 17).

Notes were issued for U.S. current gold coin, but the Commissioners could redeem them in silver or gold at its choice (Wyeth 1979: 16).

Financial year; sources of data

Until 1900 the financial year (including for the currency statistics) was the calendar year, but after a transitional quarter during the first quarter of 1901, the financial year ran from 1 April to 31 March (British Honduras annual report 1901: 4). (Trade and customs were on a calendar year basis; see, for instance, British Honduras annual report 1902: 4.)

We have copies of the relevant sections of all British Honduras colonial annual reports published from 1894 to 1964/1965. Colonial annual reports contained some annual data. The government gazette also contains data for some years.

Semiannual data for some years exist in the government gazette. Our search at the Library of Congress has so far found no issues before 1925; we also lack some later issues.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet of the monetary authority in Belize (then called British Honduras) during the period of its local currency board.

Remarks on the balance sheet

The 1898 annual colonial report mentions statistics of the note issue and reserve fund for the first time. Apparently up to one-third could be invested in securities; the rest had to be held in coin (British Honduras annual report 1898: 10). Ordinance No. 2 of 1902 allowed British Honduras government trust funds in Britain to be invested in British Honduras securities to which the Colonial Stock Acts applied (British Honduras annual report 1902: 21). We assume this included the currency board.

For a long period up to 1935 the Board did not publish regular reports, contrary to the ordinance establishing it. In 1907 the investment interest account was deleted so that all income and expenditure were included in the government's general revenue. Only after a new ordinance passed in 1937 did matters change (Wyeth 1979: 19). (This was Ordinance No. 1 of 1937.)

At times during the period when the pound sterling was the anchor currency, more than half of the Board's securities were in U.S. Treasury securities rather than sterling securities (Wyeth 1979: 19).

In 1939 there was a devaluation of sterling against the dollar. Since 1936, a large share of the Board's securities was U.S. Treasury bonds, so the loss from the devaluation was not great (Wyeth 1979: 19.). The Treasury bond share was over 48% at the end of 1938 (Wyeth 1979: 23 n. 29).

1954: Coinage was guaranteed by the government's general revenue rather than by the Commissioners of Currency. In 1954 the government established a coinage security fund, initially \$15,000, increasing to more than \$27,000 in 1955 (British Honduras annual report 1953: 35; 1954: 32; 1955: 28). Coins remained a liability of the government generally rather of than the Commissioners of Currency specifically until 1965.

1965: The Note Security Fund became called the Currency Fund after 1965 legislation made the Board responsible for coins as well as notes (Wyeth 1979: 54 n. 6).

Wyeth (1979) has annual data since 1949 on the currency board, banks, trade, etc. which we will digitize if it fills holes in our data.

Remarks on the income and expenditure statement

Some income and expenditure data are available in the government budget published in the government gazette.

Remarks on other accounts and data

1952: The colonial annual report starts showing consolidated figures of banking statistics (British Honduras annual report 1952: 34).

1957: The 1957 colonial annual report shows, perhaps for the first time, price index numbers (British Honduras annual report 1957: 25).

Deviations from orthodoxy

1951: A contribution of earnings equal to 1% of notes in circulation had to be paid into the Note Guarantee Fund every year until the Fund reached 110% of notes in circulation. The government was liable to make up the value of the Fund if it ever fell below 100% of circulation (Wyeth 1979: 16). In 1951 the reserve ratio dropped below 100% but even so, the government did not transfer revenue to offset the deficiency. By the next year the reserve ratio was back above 100% (Wyeth 1979: 38-40).

1958: A 1958 law authorized the Board to hold local assets of \$350,000 (15% of currency in circulation at the time), increased in 1965 to \$1 million. In 1967 the Board bought \$500,000 of local government bonds and in 1970 a further \$500,000, which was all it purchased during the remainder of its life (Wyeth 1979: 37-38). In 1970, \$1 million was equal to about 17% of currency in circulation. However, the Board's sterling reserves remained near to 100% of currency in circulation because of the requirement of a 110% overall reserve level. We might classify the Board as a quasi currency board, though we will have to run the numbers, not yet digitized, on its reserve behavior at the margin.

1972: Exchange Control Regulations were promulgated during the year, but we do not know their content (Central Bank of Belize 2011).

1976: Exchange Control Regulations, 1976 came into effect of 11 May 1976, but we do not know their content (Central Bank of Belize 2011).

Other remarks

We thank Andrew Rosenberg for digitizing the data in the colonial annual report and [name(s) to come] for digitizing the data from the .

The Commissioners had agents in New Orleans and New York (we assume the Royal Bank of Canada in New York, and its correspondent in New Orleans) who would redeem notes. Under the 1937 ordinance the Currency Fund was now called the Note Security Fund. A Currency Note Income Account was re-established (from 1907?) to receive revenue and charge expenses to. The paragraph mentions commissions but specifies no fee (Wyeth 1979: 20).

1903: The Bank of British Honduras became the first commercial bank in the colony in January 1903 (*Bankers Magazine*, February 1913: 224). It does not seem to have issued notes. A Government Savings Bank had been established in 1846 (British Honduras annual report 1892: 19).

1912: The Royal Bank of Canada bought the colony's only bank, the Bank of British Honduras, in November 1912 (British Honduras annual report 1912: 20). The bank was not allowed to issue notes (British Honduras annual report 1922: 17).

1914: Legally, convertibility of British Honduras notes into gold coin remained in force until just after World War II began in 1939, but practically it ceased in October 1914. A scare over a German warship prompted the government to ship its gold to the United States for safekeeping by the Royal Bank of Canada, where it remained. In practice, because U.S. dollars were acceptable, gold was rarely requested (Wyeth 1979: 17; British Honduras annual report 1919: 3).

1918: During World War I, U.S. currency notes circulated in substantial quantities, because of the difficulty of obtaining notes printed in England (British Honduras annual report 1918: 3). They continued to "circulate freely" up until at least the late 1930s (British Honduras annual report 1921: 14; 1938: 28).

1931: After a severe 1931 hurricane, the government budget was persistently in deficit every year and received a British grant every thereafter except 1947. The British Treasury took control of the finances early in the period, not relinquishing it in January 1953 after British Honduras had had budget surpluses in 1951 and 1952 (British Honduras annual report 1951: 15; 1952: 21; 1953: 23).

1931: It was estimated that up to a quarter of currency in circulation was destroyed by fires in Belize City over the years and by the destructive hurricane of 1931 (Wyeth 1979: 19).

1937: Ordinance No. 1 made the currency board similar to other British colonial currency boards of the time, though it also permitted the Commissioners of Currency to hold part of the Note Security Fund in silver coin temporarily until it could be put back into circulation (section 8, subsection 3).

1949: Barclays Bank (Dominion, Colonial and Overseas) opened a branch on 4 September 1949, becoming the second bank in the colony (British Honduras annual report 1949: 19).

1940: An amending ordinance in 1940 allowed the Royal Bank of Canada to act as the Commissioners' agent in England (Wyeth 1979: 21).

1968: The Bank of Nova Scotia became the third bank in British Honduras (Wyeth 1979: 43).

1973: On 1 June 1973 British Honduras was renamed Belize.

References

- Belize Board of Commissioners of Currency. Annual report. 1895-1976. In British Honduras, *Financial Statements* (1895-1952); *Financial Report and Statements* (1953-1976). Belize City: Government Printery? (We have seen references to this source but have not seen the source itself; we list it for the potential use of other researchers.) [Available in London?]
- Belize. Gazette. 1973-present. *Government Gazette*. Belmopan: Government Printery. (Succeeded British Honduras gazette.)
- British Honduras. Gazette. 1888-1973. *Government Gazette, British Honduras*. Belize City: Government Printery[?] (Succeeded by Belize gazette.)
- British Honduras. Annual report. 1894-1938, 1946-1964/1965. Great Britain (United Kingdom). Colonial Office, *British Honduras: Report for ...* (1894-1930); Colonial Office, *Annual Report on the Social and Economic Progress of the People of British Honduras* (1931-1938); not published 1939-1945 because of World War II; Colonial Office, *Annual Report on British Honduras* (1946-1949), Colonial Office, *Report on British Honduras for the Year ...* (1950-1964 & 1965). London: His / Her Majesty's Stationery Office. (This series was called Colonial Reports until World War II and Colonial Annual Reports afterwards; it was suspended during the war for most colonies.)
- British Honduras. Gazette.
- Central Bank of Belize. 2011. "Chronology of Monetary Policy and Developments." <https://www.centralbank.org.bz/docs/default-document-library/chronology-of-monetary-policy.pdf>, viewed 25 September 2011.

- Monetary Authority of Belize. Annual report. 1977. *Annual Report and Accounts*. Belize City: Monetary Authority of Belize.
- Wyeth, John. 1979. *Belizean Economic History: A History of the Belize Board of Commissioners of Currency (1894 to 1976)*. Belize City: Belize Institute for Social Research and Action, Saint John's College. (*Journal of Belizean Affairs*, no. 8, April.)

Spreadsheets

Annual and high-frequency under construction.

British Solomon Islands (now Solomon Islands)

Name, headquarters, dates, membership

British Solomon Islands Commissioners of Currency, headquarters Tulagi, British Solomon Islands.

The Commissioners of Currency began operations on 14 July 1917, when they issued their first notes. The rationale of the note issue may have been to compensate for a shortage of coins during World War I. The Commissioners of Currency ceased issuing notes on 24 September 1937. From 25 September 1937, the Commissioners' notes ceased to be legal tender. British coin and Australian notes and coin had been made legal tender in March 1937 (British Solomon Islands annual report 1937: 14; see also 1938: 27). The annual reports give no reason why the note issue was ended, but we conjecture that its small size may have made it not worth the effort.

Legislation

- British Solomon Islands, Currency Regulation 1910: We have not yet seen this; it may not concern the currency board.
- British Solomon Islands, Solomon Government Currency Notes Regulation 1916, No. 10 of 1916, published 14 September 1916 (*Western Pacific High Commission Gazette*, 20 September 1916, supplement: 237-244): Established a government note issue.
- British Solomon Islands, Government Currency Notes (War Amendment) Regulation, No. 4, [date] 1919: We have not yet seen this.
- British Solomon Islands, Government Currency Notes (Amendment) Regulation, No. 1, [date] 1923: We have not yet seen this.
- British Solomon Islands, Currency Ordinance, No. 2, 25 March 1937: Made British coin and Australian notes and coin legal tender. [Did it also explicitly provide for eliminating local notes?]
- British Solomon Islands, Currency (Amendment) Ordinance, No. 1, [date] 1938: We have not yet seen this.

Exchange rate and currency system

The exchange rate was Solomon Islands £1 = £1 sterling (Great Britain 1923: 46).

We found no information about commission fees the currency board charged, but we suspect that they existed because they were common at the time.

Like the United Kingdom and Australia at the time, the Solomon Islands used the nondecimal pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated "s.") = 240 pence (or pennies, abbreviated "d." from the Latin *denarius*, an ancestor of the penny).

The Commissioners of Currency issued notes of 5 shillings to £5, as provided in the Solomon Government Currency Notes Regulation 1916, No. 10 of 1916, published 14 September 1916 (*Western Pacific High Commission Gazette*, 20 September 1916, supplement: 237-244). The Commissioners did not issue coins; British coins were legal tender (Great Britain 1923: 46). By 1927 Australian coins were also legal tender (British Solomon Islands annual report 1927: 4).

The 1929 colonial annual remarks that "Australian currency is also in circulation," which we interpret to mean notes as well as coins (British Solomon Islands annual report 1929: 3).

Financial year; sources of data

The Solomon Government Currency Notes Regulation 1916, No. 10 of 1916, published 14 September 1916 (*Western Pacific High Commission Gazette*, 20 September 1916, supplement: 237-244) required the Commissioners to publish quarterly financial abstracts and an annual financial statement (*Western Pacific High Commission Gazette*, 20 September 1916, supplement: 237-244). See the section below on high-frequency data.

We have copies of the relevant sections of all British Solomon Islands colonial annual reports published from 1913 to 1964. Colonial annual reports contained some annual data. We also have copies of many issues of the *Western Pacific High Commission Gazette* from 1914 to 1937.

The *Western Pacific High Commission Gazette* shows quarterly data. We are missing data from the following months: all quarter ends September 1917-June 1920 (which we assume were published); December 1920; December 1928; March 1931; June 1937 (if published).

The International Monetary Fund's *International Financial Statistics* database does not cover the Solomon Islands (then called the British Solomon Islands) during the period of the currency board.

Remarks on the balance sheet

None.

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

Colonial annual reports after World War II, after the currency board had ceased to exist, give estimates of currency in circulation.

Deviations from orthodoxy

None.

Other remarks

1916: The Solomon Government Currency Notes Regulation 1916, No. 10 of 1916, published 14 September 1916, provided that reserves against the note issue were to be at least half in coin and the remainder in securities. There was a Depreciation Fund of at least 10% beyond the 100% Note Guarantee Fund. The regulation required the Commissioners to publish quarterly financial abstracts and an annual financial statement (*Western Pacific High Commission Gazette*, 20 September 1916, supplement: 237-244).

1922: There were no commercial banks. The Commonwealth Bank of Australia used as its branches a local firm, Burns Philp (South Sea) Company, which had stations at Tuglai, Gizo, and Shortlands (Great Britain 1923: 46),

1931: There was a branch of the Commonwealth Savings Bank of Australia, which transacted savings bank business only. There were no commercial banks in the colony (British Solomon Islands annual report 1931: 12).

1951: A full branch of the Commonwealth Bank of Australia and the Commonwealth Savings Bank was opened in Honiara on 23 July 1951. It was the first full-fledged bank in the colony (British Solomon Islands annual report 1951: 15).

1958: "Some U.S. dollars are still being retained by Solomon Islanders but are being withdrawn from circulation as they come to light." (British Solomon Islands annual report 1957 & 1958: 15). Presumably the remark refers to currency that came into circulation during World War II when U.S. military forces were present.

References

Great Britain (United Kingdom). High Commission for the Western Pacific. 1923. *Handbook of the British Solomon Islands Protectorate*. Suva: Fiji: S. Bach. (Returns to 31 December 1921 or 31 March 1922.)

British Solomon Islands. Annual report. 1917/1918-1938. Great Britain (United Kingdom). Colonial Office, *British Solomon Islands, Report for ...* (1917/1918-191/1920); *British Solomon Islands Protectorate, Report for ...* (1921/1922-1930; 1921/1922 report incorporates statistics for 1920/1921, when apparently no report was issued); *Annual Report on the Social and Economic Progress of the*

People of the British Solomon Islands (1931-1938). London: His / Her Majesty's Stationery Office.
(This series was called Colonial Reports until the Second World War.)
Great Britain (United Kingdom). 1917-1937. High Commission for Western Pacific Islands. *Western Pacific High Commission Gazette*. Suva, Fiji: High Commission for the West Pacific.

Spreadsheets

Annual done; high frequency done for now (further data may be hard to get in the USA).

Brunei

Name, headquarters, dates, membership

- 12 June 1967-31 January 2004: Brunei Currency Board (Lembaga Mata Wang Brunei), headquarters Brunei Town (called Bandar Seri Begawan from 4 October 1970), Brunei.
- 1 February 2004-present: Brunei Currency and Monetary Board (Lembaga Mata Wang Dan Monetari Brunei), headquarters Bandar Seri Begawan, Brunei (Brunei Currency and Monetary Board Web site, "Introduction" page).

The Board of Commissioners of Currency, Malaya and British Borneo, of which Brunei was a member, ceased issuing currency to banks and the public on Sunday, 10 June 1967 because Malaysia had given notice in December 1964 that it would end the currency agreement with Brunei and Singapore. Malaysia wished to make monetary policy through a national central bank instead of through a currency board, while Brunei wished to continue along currency board lines. The Brunei Currency Board opened on 12 June 1967 to succeed the Malayan board and began issuing notes on that date. It began issuing coins on 22 August 1967 (State of Brunei annual report 1967: 35, 37). The 2004 renaming of the board accompanied a revision of the law concerning it. The new law gave the Brunei Currency and Monetary Board greater power to act as the government's agent (Brunei Currency and Monetary Board Web site, "Introduction" page).

Legislation

- Brunei, An Act to Establish a Brunei Currency Board and a Brunei Currency and for Matters Relating Thereto and Connected Therewith (Currency Act), No. 2, 28 January 1967: Established a local currency board to succeed the Board of Commissioners of Currency, Malaya and British Borneo, which was dissolving.
- Brunei, Law No. 5 of 1977? [we still need to find it]: Gave the Brunei Currency Board certain powers making it less orthodox.
- Brunei, Brunei Currency and Monetary Order 2004, effective 1 February 2004: Gave the currency board further unorthodox powers.

Exchange rate and currency system

- 12 June 1967-9 October 1995?: Brunei \$1 = 0.290999 grams gold (inoperative) (= Singapore \$1).
- 10 October 1995?-present: Brunei \$1 = Singapore \$1.

The Brunei Currency Enactment, 1967, specified the value of the Brunei dollar as 0.290999 grams of gold. In practice, the Brunei dollar has never been directly convertible into gold. In practice, the Brunei dollar has always been maintained equal to the Singapore dollar, but has used first the pound sterling and later apparently the U.S. dollar as the intervention currency. Before the United Kingdom devalued sterling on 18 November 1967 the exchange rate was Brunei \$1 = 2 shillings 4 pence sterling (approximately Brunei \$8.5714 = £1 sterling). After the devaluation the exchange rate was Brunei \$1 = 2 shillings 8.6667 pence sterling (approximately Brunei \$7.3469 = £1 sterling) (State of Brunei annual report 1967: 35). The Malayan dollar, issued by the Malayan currency board, used the pound sterling as its anchor currency, and after the devaluation of sterling its value fell from Brunei \$1 to 85.71 Brunei cents (State of Brunei annual report 1967: 37). Old Malayan currency ceased to be legal tender in Brunei from 16 January 1969 (State of Brunei annual report 1969: 36).

It is unclear from the documents we have seen when Brunei ceased using the pound sterling as the anchor currency and when legislation ceased to state a gold parity for the Brunei dollar. Brunei became a member of the International Monetary Fund on 10 October 1995. The IMF's Articles of Agreement, Article IV, Section 2, as amended in 1977, prohibits the use of gold as a denominator for the exchange rate. By becoming a member of the IMF, Brunei in effect agreed to cease stating a gold parity for the Brunei dollar, even an inoperative parity, if it had not already done so before.

The Board's commission fee was initially 3/32 of 1 penny sterling per Brunei \$1 (approximately 0.33%) (Brunei Currency Board, notice of 12 June 1967, Notification No. 151, *Brunei Government Gazette*, 17 June 1967: 117). It changed to 0.1094 penny sterling per Brunei \$1 (approximately 0.39%) from 7 December 1967 (Brunei Currency Board, notice of 7 December 1967, Notification No. 4, *Brunei Government Gazette*, 13 January 1968: 4). The rate became Brunei \$0.0246 per £1 sterling (approximately 0.33%) effective 1 October 1968 (Brunei Currency Board, notice of 1 October 1968, Notification No. 275, *Brunei Government Gazette*, 5 October 1968: 220). The Board apparently ceased charging a commission fee at some point.

The minimum amount the currency board accepted for issuing Brunei dollars was £10,000 sterling. The minimum for the board accepted for redeeming Brunei dollars was Brunei \$100,000 (State of Brunei annual report 1967: 36).

The Brunei dollar is a decimal currency divided into 100 cents.

During its existence the currency board has issued coins of 1 cent to \$1 and notes of Brunei \$1 to \$1,000 (Brunei Currency and Monetary Board Web site, "Introduction" page).

Brunei, Malaysia, and Singapore agreed to accept one another's currency without charge (State of Brunei annual report 1967: 36).

Until 1 October 1968, Brunei dollars were issued and redeemed against sterling at Brunei \$1 = 2 shilling 8.6667 pence sterling plus or minus commission. From 1 October 1968, the method of quotation was changed and the exchange rate became £1 sterling = Brunei \$7.3469 plus or minus commission (State of Brunei annual report 1968: 35).

Financial year; sources of data

The financial year is the calendar year.

We have copies of the relevant sections of many, though not all, colonial annual reports and annual reports of the State of Brunei. In addition, we have copies of condensed financial statements from some issues of the *Brunei Gazette*. The Web site of the Brunei Currency and Monetary Board has far less data than is now customary for monetary authorities.

Some high-frequency data exist in the *Brunei Government Gazette*. We are missing many issues of the gazette, which may be accessible in London or Singapore.

The International Monetary Fund's *International Financial Statistics* database shows data of the monetary authority's assets and liabilities for Brunei starting in 1999. It shows no data for income and expenditures. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

The Brunei Currency Board began with a loan from the government of Brunei \$820,000. At its first statement, on 30 June 1967, the Board's external assets exceeded that amount by \$7,737,652.45, or 90.0% of demand liabilities (Brunei Currency Board, notice of 14 July 1967, Notification No. 213, *Brunei Government Gazette*, 26 August 1967: 167).

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

None.

Deviations from orthodoxy

1977: Brunei, Law No. 5 of 1977?, cited in Brunei Attorney General's Chambers Web site, viewed 10 December 2007: The Brunei Currency Board gained certain powers making it less orthodox, such as the reduction of the minimum ratio of foreign reserves to 70%.

2004: The Currency and Monetary Order, 2004, gave the directors of the Brunei Currency and Monetary Board power to reduce foreign reserves below 70% of assets by unanimous vote (section 24 of the Order, <http://www.agc.gov.bn/agc1/images/LOB/Order/ABC/C/Currency%20and%20Monetary%20Order.%202004.pdf>, viewed 27 September 2011).

Other remarks

1948: Initially the only bank was the Post Office Savings Bank, which after World War II reopened on 15 November 1948 and was limited to new depositors only, at least at first (Brunei colonial annual report 1946: 50). The Hongkong and Shanghai Bank, the first commercial bank in Brunei, opened a branch in Brunei Town in January 1948 (Brunei colonial annual report 1947: 13). The Chartered Bank opened branches in May 1958 and Malayan Banking Limited opened a branch in October 1960 (State of Brunei annual report 1960: chapter 4).

1967: Since it began issuing its own currency on 12 June 1967, Brunei has had an interchange agreement with Singapore, whereby each country's currency is accepted without commission fees by banks in the other country. Singapore dollars therefore circulate to some extent in Brunei (Brunei Currency and Monetary Board Web site, "Interchangeability Agreement" page). There was originally a similar agreement with Malaysia (State of Brunei annual report 1967: 36), which later ceased.

References

Brunei. Colonial annual report. 1946-1951, 1953-1957. Great Britain (United Kingdom). Colonial Office, *Annual Report on Brunei for the Year* London: His / Her Majesty's Stationery Office. (This series was called Colonial Reports until World War II and Colonial Annual Reports afterwards; it was suspended during the war for most colonies.).

Brunei. State of Brunei annual report. 1952, 1958-1971, 1987, 1989. *Annual Report ...* (1952, 1958-1971); *Brunei Darurussalam ...* (1987, 1989). Brunei Town (now Bandar Seri Begawan). (The text seems to be identical to that of the colonial annual report during the period the colonial reports were issued.)

Brunei Currency and Monetary Board. Web site. <http://www.mof.gov.bn/English/BCMB/Pages/default.aspx>, viewed 27 September 2011.

Brunei Government Gazette / Warta Kerajaan Negeri. 1967-present. Brunei. (Title was originally English only; it became bilingual in 1971. Starting in 1982, notices on currency board currency in circulation appear in Part IV, though some extraordinary notices on coinage changes appear in part II.)

Spreadsheets

Under construction.

Bulgaria

Name, headquarters, dates, membership

Bŭlgarska Narodna Banka Bulgarian National Bank , headquarters Sofia, Bulgaria, 1 July 1997 to present. The Bulgarian National Bank was constrained by currency board-type rules after an economic crisis during which it had created a hyperinflation. Kurt Schuler and especially Steve H. Hanke were involved in proposing and advising the monetary reform. The episode continues today.

Legislation

- Bulgaria, Law on the Bulgarian National Bank, published 10 June 1997: Converted the Bulgarian National Bank into a quasi currency board.

Exchange rate and currency system

The Bulgarian lev (archaic Bulgarian for “lion,” the national symbol; the plural is levs or leva) is a decimal currency, divided into 100 stotinkas or stotinki. Its exchange rates have been as follows:

- 1 July 1997-31 December 1998: 1,000 Bulgarian (old) levs = 1 German mark (BNB annual report 1997: 13).
- 1 January 1999-4 July 1999: 1,955.83 Bulgarian (old) levs = 1 euro (BNB annual report 1998: 162). The German mark ceased to be the anchor currency when the euro replaced the German mark. The exchange rate with the euro was the rate implied by the cross-rate between the German mark and the euro.
- 5 July 1999-present: 1.95583 Bulgarian (new) levs = 1 euro. The currency was redenominated, and a new Bulgarian lev replaced the old lev at 1 new lev = 1,000 old levs. There was no time limit on the replacement period (BNB annual report 1999: 20).

The Bulgarian National Bank was required by law to exchange Bulgarian leva for the anchor currency at a spread of no more than $\pm 0.5\%$ from the official exchange rate. From the start on 1 July 1997 until at least 1998 the bank’s spread was 995-1,000 Bulgarian levs = 1 German mark (BNB annual report 1997: 78-79; 1998: 70). After 1998 the annual reports seem to cease mentioning a spread. We have asked BNB whether they stopped charging a spread and are awaiting a reply.

The Bulgarian lev is a decimal currency divided into 100 stotinka.

At the time of the currency redenomination that occurred on 1 January 1999, the Bulgarian National Bank was issuing coins of 10 stotinkas to 50 old levs and notes of 20 to 50,000 old levs. Since the redenomination, it has issued coins of 1 new stotinka to 1 new lev and notes of 1 to 100 new levs (BNB Web page, “Notes and Coins” page and pages linked to it).

Financial year; sources of data

The financial year of the Bulgarian National Bank is the calendar year.

Copies of the annual reports of the Bulgarian National Bank since before 1997 are available on its Web site.

The spreadsheets accompanying the Bulgarian National Bank’s publication *Monetary Statistics* show balance sheet information and information on its foreign assets, presented differently than in the annual reports, monthly from December 1995 onward. The spreadsheets are available on the bank’s Web site.

The International Monetary Fund’s *International Financial Statistics* database begins covering the balance sheet data of the monetary authority in 1991. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

2001: The balance sheet underwent a minor change in presentation.

The Bulgarian quota and borrowing at the International Monetary Fund is a joint liability of the bank and the Bulgarian government (see, for example, BNB annual report 1999: 99).

Remarks on the income and expenditure statement

For clarity, we have grouped all income together and all liabilities together instead of intermingling them as the original statements do. We have also removed the negative sign from expenditures.

2001: The income and expenditure statement underwent a change in presentation.

2009: The income and expenditure statement underwent a change in presentation.

Remarks on other accounts and data

None.

Deviations from orthodoxy

When the currency reform of 1 July 1997 occurred, the Bulgarian National Bank was divided into three departments: an Issue Department, operating like a currency board; a Banking Department, with some residual central banking functions, including acting as a depository for Bulgarian government funds; and a Banking Supervision Department. There was also a Fiscal Services Department that acted as an agent for the government (BNB annual report 1997: 109). The Bulgarian National Bank may provide liquidity to commercial banks if liquidity problems threaten the banking system. Its issue of Bulgarian levs is not allowed to exceed gross foreign reserves, but by implication may exceed net international reserves (see, e.g., BNB annual report 2007: 67).

The Bulgarian National Bank imposes reserve requirements on commercial banks. As of 2012 the implicit requirement was 8.9% of deposits (BNB annual report 2012: 41).

Other remarks

1997: Bulgaria converted its central bank into a quasi currency board to stop a high inflation that began after the collapse of communism and peaked at more than 200% month-over-month in February 1997. In March 1997 there was a de facto stabilization of the lev, and until the exchange rate was officially fixed on 1 July 1997 the rate remained within a range equal to 865-1,000 leva per German mark. The official intervention currency before the fixing was the U.S. dollar (BNB annual report 1997: 28, 79).

1997: "To minimize interest rate risk, the term of securities portfolio should be no longer than 1.6 years, with securities' residual maturity of up to three years and the volume of issues exceeding DEM 1 billion or USD 1 billion. The BNB may hold no more than 10% of one securities issue in its portfolio. The BNB may not invest funds in derivatives" (BNB annual report 1997: 68).

1997: A banking crisis occurred in 1996 and 1997 before the monetary reform, but its effects persisted for some time afterwards (BNB annual report 1997: 104).

2014: A run occurred on Corpbank, the fourth-largest, which was taken over by the government on 20 June.

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Spreadsheets

Annual done; high-frequency data are available on the Bulgarian National Bank Web site; we may later issue a spreadsheet of high-frequency data using our balance sheet categories.

Burma (now Myanmar)

Name, headquarters, dates, membership

Burma Currency Board, headquarters London. The Board held its first meeting on 2 January 1947 and began operations on 1 April 1947 (BCB annual report 1948: 3). Its reason for existence was to issue a currency for Burma separate from the Indian currency Burma had used before World War II and the British military currency issued during the war (see the “Other remarks” section below). The currency board was created in view of Burma’s likely independence. John Maynard Keynes, when asked to comment on the possibility of a currency board for Burma in 1945, criticized the currency board system as out of date (Helleiner 2014: 225-226). The Board ended its existence on 30 June 1952; on 1 July its assets were transferred to the Union Bank of Burma, a central bank (BCB annual report 1952: 3). The Union Bank of Burma Act, 1952 (partly reprinted in BCB annual report 1952: 8), lists in its preamble as reasons for establishing a central bank “strengthening the monetary and banking system of the Union of Burma and stimulating the sound growth of indigenous banking.”

Legislation

- Burma, Currency and Coinage Act, No. 45 of 1946: Established the Burma Currency Board.
- Burma, Union Bank of Burma Act, 1952: Replaced the Burma Currency Board with the Union Bank of Burma, a central bank.

Exchange rate and currency system

The exchange rate throughout the existence of the Burma Currency Board was 1 Burmese rupee = 1 shilling 6 pence sterling (18 pence, or £0.075 sterling). This exchange rate made the Burmese rupee equal to the Indian rupee (Burma Currency Board annual report, 30 September 1948: 3).

The commission fee was initially 1/32 of one penny (pence) sterling per rupee, that is, approximately 0.17631%. On 1 February 1948 the Board reduced the commission fee to 1/64 of one penny sterling per rupee, or approximately 0.086806%. The minimum transaction was 100,000 rupees, or £7,500 sterling. No commission was charged for transactions on behalf of the government (BCB annual report 1948: 5-6).

The Burmese rupee was a nondecimal currency divided into 16 annas (later called pe) or 64 pice (later called pyas), mirroring the Indian rupee.

The Burma Currency Board issued note for 1 to 100 Burmese rupees (BCB annual report 1948: 5). Burma continued to use Indian coins until starting to issue its own coins on 20 July 1950. Then the Board issued coins of ½ anna to ½ rupee (BCB annual report 1950: 4).

Financial year; sources of data

The financial year ran from 1 October to 30 September.

We have a complete set of the Burma Currency Board’s annual reports.

Monthly data on currency exists in the *Quarterly Bulletin of Statistics*. We have not yet checked the gazette for data; some *Quarterly Bulletin* data seem to conflict with annual report data.

The International Monetary Fund’s *International Financial Statistics* database does not cover Myanmar (Burma) during the period of the currency board.

Remarks on the balance sheet

None.

Remarks on the income and expenditure statement

The Burma Currency Account kept track of the issue and redemption of currency.

Remarks on other accounts and data

None.

Deviations from orthodoxy

The Burma Currency Board was allowed to hold up to 10 crores of rupees (100 million rupees) in Burmese government securities against the B.M.A. notes issued before the Burmese government took over the issue. The estimated circulation of such notes was 227,498,151 rupees. The Board never actually held any Burmese government securities.

Other remarks

Before 1 April 1937, when Burma separated from India, Burma used Indian currency. From 1 April 1937, the Reserve Bank of India issued a separate series of notes for Burma, the so-called Old Burma Notes. After the Japanese occupation during World War II, the Indian government assumed liability for the notes. After liberation from Japanese occupation, the British Military Administration (B.M.A.) overprinted Reserve Bank of India notes against sterling held by the British government as a temporary measure (Burma Currency Board annual report, 30 September 1948: 3). On 1 February 1946 the Burmese government assumed responsibility for the issuance of notes in Burma. From then to 1 April 1947, the government continued to issue B.M.A. notes, adding the sterling equivalent of each issue to the sterling deposit begun by the British government. Burma continued to use Indian coins. When the Currency Board opened, it assumed responsibility for all outstanding issues of Old Burma Notes and B.M.A. notes (Burma Currency Board annual report, 30 September 1948: 4).

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Spreadsheets

Annual and high-frequency done.

Canada

Name, headquarters, dates, membership

Department of Finance, headquarters Ottawa, Ontario, Canada. We believe that notes formerly issued by the government of the Province of Canada (present-day Ontario and Quebec) became Dominion notes (federal government liabilities) as of 22 May 1868, when an act referred to below received royal assent. However, the monthly statement of note issue mentioning Dominion notes rather than provincial notes in the *Canada Gazette* is on p. 645 of 1869, for the statement dated 3 March 1869. The Dominion note issue continued until 10 March 1935, but *operated as a quasi currency board only for the periods 12 May 1870-2 August 1914 and 1 July 1926-January 1929*.

Canada established a federal government note issue as a way of generating seigniorage and avoiding redemption of note issues previously made by the governments of the Province of Canada (now Ontario and Quebec), Nova Scotia, and later Prince Edward Island. The federal government prohibited banks from issuing notes for less than \$5 as a way of creating some demand for government notes. The government replaced both the government note issue and the parallel issue of notes by commercial banks with a central bank, the Bank of Canada, having a monopoly of note issue. The Bank of Canada opened on 11 March 1935. The rationale of establishing a central bank was to allow more discretionary power in monetary policy, considered especially desirable during the economic conditions of the 1930s, although a central bank had been discussed for a number of years previously.

Legislation

- Canada, An Act to enable Banks in any part of Canada to use notes of the Dominion instead of issuing Notes of their own, 31 Victoria cap. 46, assented 22 May 1868: Among other provisions, made notes of the Province of Canada into Dominion (federal government) notes.
- Canada, Dominion Notes Act, 33 Victoria cap. 10, assented 12 May 1870: Created a uniform federal government note issue as the successor to various provincial note issues.
- Canada, Uniform Currency Act, 34 Victoria cap. 4, 14 April 1871: Established the monetary standard previously existing in the Province of Canada (present-day Ontario and Quebec) as the standard of the whole country.
- Canada, Bank Act, 34 Victoria cap. 5, 14 April 1871: Established the framework for federal regulation of banks.
- Canada, An Act to extend the Acts respecting Dominion Notes to the Provinces of Prince Edward Island, British Columbia and Manitoba, 39 Victoria cap. 4, assented 12 April 1876: Extended provisions of the Dominion Notes Act to Prince Edward Island, British Columbia, and Manitoba.
- Canada, Bank Act, 43 Victoria cap. 22, 7 May 1880: Revised the Bank Act of 1870; among other provisions, reduced the minimum denomination of bank-issued notes from \$5 to \$4.
- Canada, Order-in-Council of 10 August 1914: Suspended the gold standard (confirming by law what had already occurred in practice).
- Canada, Finance Act, 5 George V cap. 3, 22 August 1914: Entrenched the suspension of the gold standard in statute law rather than in a merely temporary order.
- Canada, Finance Act, 13-14 George V, cap. 48, 30 June 1923: Extended provisions of the Finance Act of 1914. Mandated a return to the gold standard by three years after passage (that is, 1 July 1926), though with an escape clause.
- January 1929: The government in effect suspended the gold standard again through the use of certain gold devices (Bordo, Redish, and Shearer 1999: 20). Establishing a precise date is hard because this was a stealth measure.
- Canada, Order-in-Council of 31 October 1931: Banned the export of gold. The government had floated the Canadian dollar on 19 October 1931, a few weeks after the pound sterling had floated. The Order-in-Council simply sanctioned existing practice.

- Canada, Order-in-Council of 10 April 1933: Officially suspended the redemption of Dominion notes for gold, ratifying existing practice.
- Canada, Bank of Canada Act, 24-25 George V, chapter 43, 3 July 1934: Established a central bank to replace government and bank note issue.

See also the list in the “Deviations from orthodoxy” section about legislation on reserve requirements.

Exchange rate and currency system

Effective 1 August 1854, the Province of Canada (now Ontario and Quebec) had established (by 16 Victoria cap. 158, of 1853) that the U.S. half-eagle (\$5 piece, 129 grains of gold 90% fine by the U.S. act of January 18, 1837) was worth Canadian \$5 and that the unit of account was the decimalized dollar. The Canadian dollar was thus equal to the gold U.S. dollar at 23.22 grains (approximately 1.50337 grams) of pure gold. The Province of Canada and later the Canadian federal government maintained that standard when the United States was off the gold standard from 1861 to 1879. Canada’s exchange rates were as follows.

- 1 August 1854-2 August 1914: Canadian \$1 = 23.22 grains gold.
- 3 August 1914-30 June 1926: Floating, so not a quasi currency board during this period.
- 1 July 1926-January 1929: Canadian \$1 = 23.22 grains gold.
- January 1929-10 March 1935: Floating, so not a quasi currency board during this period.

There was no commission fee. There could be minting fees if exchanging gold bullion rather than legal tender gold coins for Dominion notes.

The Canadian dollar was and remains a decimal currency, divided into 100 cents. The Canadian government issued Dominion notes in denominations of 25¢, \$1, \$2, \$4, \$5, \$50, \$100, \$500, \$1,000, \$5,000, and \$50,000. Notes of \$500 and up were for banks to have a ready means for physical settlement of interbank balances.

Coins issued by the Canadian government had no specific legally mandated backing and are not included in our data.

Banks also issued notes. The act of 22 May 1868 prohibited them from issuing notes of less than \$4, but the

Financial year; sources of data

The financial year ran from July 1 to June 30.

All issues of the *Canada Gazette*, containing the monthly statements of the government note issue, are available online. The Department of Finance’s *Public Accounts for the Fiscal Year Ended June 30* are also available online. Our data begin in November 1866, when the note issue was that only of the Province of Canada (present-day Ontario and Quebec), not that of the Canadian federal government, which did not yet exist. A few months are missing from the *Gazette*, as Curtis (1931: 15) also remarked. The page numbering in the *Canada Gazette* followed the fiscal year, not the calendar year, so page 1 starts with the July issue and not the January issue. We are missing *Canada Gazette* data for the following months: March-May 1870, April-May 1886, September 1886, January-May 1887, December 1888 (partial data), February 1889 (partial data), April 1898 (partial data), August 1889, November 1889, September 1893, February 1894 (partial data), August 1894 (partial data), June 1897 (partial data), January 1898 (partial data), February 1901 (partial data), March 1902 (partial data), February 1905 (partial data), May 1905 (partial data), September 1910 (partial data), December 1918, February-April 1919, January 1920, June 1920, March 1921, September 1921, February 1922, May 1922, November 1922, November 1923, January 1924, April 1924, June 1924, December 1924, February 1925, October 1925, December 1925, January 1926, May 1926, July-August 1926, January 1927, October-December 1927, February 1928, April 1928, October 1928, June-August 1929, May 1930, March-October 1931, December 1931, May 1932, October 1932-June 1933, July 1934, October 1934, December 1934.

The International Monetary Fund's *International Financial Statistics* database does not cover Canada during the period of government note issue.

Remarks on the balance sheet

The date of the balance sheet is irregular in the early years. From 1872 to 1880 balance sheets were issued weekly, though apparently skipping weeks occasionally. As the number of offices grew at which the government Receiver General issued notes and held specie, the weekly balance sheet combined different dates from different offices. The spreadsheet only attempts to record monthly data, not weekly data. It uses the weekly statements in which the date of reporting by the Montreal office (the most important one) and, if possible, some of the other offices, was closest to the end of the month. Starting in July 1873 the government also issued figures for note circulation, but no other balance sheet items, on the last day of the month. Often the last day was not the latest day of the month reported in the weekly statement. From July 1880 onward the statements were more uniform. Statements were only issued monthly, and always showed note circulation and specie holdings as of the last day of the month in each office.

The format of the statement changed over time. Sometimes it was shown as a balance sheet where assets equaled liabilities and net worth was zero. Other times it omitted items on the asset side, particularly government debentures and certificates of deposit (government debt not traded on securities markets), but contained a line showing the surplus or deficiency of specie, corresponding to net worth and completing the liability side of the balance sheet, enabling estimates of missing items of the asset side.

In 1880, September 1903, September 1914, and January 1929 there were changes in the format of the statement. The September 1914 change, the most important, ceases to list securities ("Guaranteed Debentures and Specie to be held under 43 Vic., cap. 13") and lists only gold as an asset.

Remarks on the income and expenditure statement

[Possibly to come. These are apparently only to be found in the Public Accounts for the Fiscal Year. There are note printing charges, note signing charges, and express charges that are likely related to notes, but that is all. There are salaries listed for the Department of Finance headquarters, but not broken out further, so the list of expenses connected with note issue understates the expenses. We need to check whether the *Canada Gazette* says anything. Schuler did not see a list of income specifically connected with the securities held for the note issue in the brief search he made.]

Remarks on other accounts and data

None.

Deviations from orthodoxy

In 1866 the Provincial Notes Act of the Province of Canada (today Ontario and Quebec) authorized the government to issue notes to serve both as hand-to-hand currency for the public and as bank reserves. In 1868 the Canadian federal government passed a similar act, assuming responsibility for the provincial notes. The notes were called Dominion notes after the country's name, Dominion of Canada. The issuance limits and the marginal gold reserve requirements were as stated below. The balance not covered by gold consisted of Canadian government bonds.

- 1866-1870 (Province of Canada to 1868, federal government from 1868): 20% gold reserve up to Canadian \$5 million, 25% gold reserve from \$5 million to an upper limit of \$8 million (Province of Canada, 29 Victoria, cap. 10, assented 15 August 1866; Dominion of Canada, 31 Victoria, cap. 46, assented 22 May 1868).
- 1870-1872: At least \$2 million in gold reserves before any notes could be issued, 20% gold reserve up to \$5 million, 25% against notes and debentures covering the notes from \$5 million to \$9 million (with a loophole permitting the reserve to fall lower temporarily), 100% gold reserve beyond \$9 million with no upper limit on issue (33 Victoria, cap. 10, 12 May 1870).

- 1872-1875: At least \$2 million in gold reserves before any notes could be issued, 20% reserve up to \$9 million, 35% gold reserve beyond \$9 million (35 Victoria, cap. 7, 14 June 1872).
- 1875-1880: At least \$2 million in gold reserves before any notes could be issued, 20% reserve up to \$9 million, 50% gold reserve from \$9 million to \$12 million, 100% gold reserve beyond \$12 million (38 Victoria, cap. 5, 8 April 1875).
- 1880-1894: 25% gold and foreign securities reserve up to \$20 million, including a minimum gold reserve of 15% of note circulation (43 Victoria, cap. 13, 1880).
- 1894-1895: 20% gold and foreign securities reserve up to \$25 million, including a minimum gold reserve of 15% of note circulation (57 & 58 Victoria, cap. 21, 1894).
- 1895-1903: 20% gold and foreign securities reserve up to \$20 million, including a minimum gold reserve of 15% of note circulation, 100% gold reserve beyond \$20 million (58 & 59 Victoria, cap. 16, 1895).
- 1903-1914: 25% gold and foreign securities reserve up to \$30 million, 100% gold reserve beyond \$30 million (3 Edward VII, cap. 4, 1903).
- 1914-1915: 25% gold and foreign securities reserve up to \$50 million, 100% gold reserve beyond \$50 million (Dominion Notes Act, 5 George V, cap. 4, 22 August 1914).
- 1915-1929: 25% gold and foreign securities reserve up to \$76 million, 100% gold reserve beyond \$76 million (6 George V, chap. 4, 8 April 1915). (This whole list comes from Curtis 1931: 15; we have viewed some of the laws in the *Canada Gazette*.)

The Order-in-Council of 10 August 1914 and the Finance Act, 1914 created an unusual “free issue” arrangement under which there was neither a rigid exchange rate nor strong centralized control of the monetary base. This arrangement lasted until Canada resumed the gold standard on 1 July 1926 and resumed when Canada abandoned the gold standard de facto in January 1929, lasting until the end of the Dominion note issue in 1935. The “free issue” arrangement was not a currency board.

Other remarks

We thank Brandon Dixon and Kotaro Mitsuhashi for combing through the *Canada Gazette* to obtain the monthly statements. Evan Adamo digitized the data as part of work for a term paper, and we also owe some of our narrative treatment to his paper.

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viewed 14 February 2010. Downloaded 14 February 2010 by Kurt Schuler. The working paper was the basis for Cherie Metcalf, Angela Redish and Ronald Shearer, "New Estimates of the Canadian Money Stock: 1871-1967," *Canadian Journal of Economics*, v. 31, no. 1, February 1998: 104-124. (Statistics of note issue.)

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Spreadsheets

High-frequency balance sheet (monthly—no separate annual data) under construction; annual income and expenditure data under construction.

Cayman Islands

Name, headquarters, dates, membership

- Cayman Islands Currency Board, headquarters George Town, Grand Cayman, Cayman Islands, 1 May 1972 to 31 December 1976. The board was established by Cayman Islands Currency Law, Law 19 of 1971, which was passed September 1971 and received the assent of the British government in October 1971 (CICB annual report 1972: unnumbered pages with section headings “Cayman Islands Currency Law” and “The Currency Issue”). Before establishing the currency board, the Cayman Islands used Jamaican currency. The first annual report of the Cayman Islands Currency Board says it became apparent in the late 1960s that a break with the Jamaican currency system might need to be considered, but it coyly does not say why (CICB annual report 1972: unnumbered page with section heading “Part I”). We surmise that the reason was the prospective instability of Jamaican currency because of Jamaica’s post-independence economic policies.
- Cayman Islands Monetary Authority, headquarters George Town, Grand Cayman, Cayman Islands, 1 January 1997 to present. The Monetary Authority merged the activities of the former Financial Services Supervision Department and the Cayman Islands Currency Board (CICB annual report 1996: 8, 24; CIMA annual report 1997: 2). The 2006 annual report describes the licensing and supervision of financial institutions as “the core business” of the Authority (CIMA annual report, 30 June 2006: 2; see also p. 51), which it is in terms of staff and importance to the economy of the Cayman Islands. The episode continues today.

Legislation

- Cayman Islands, Cayman Islands Currency Law, No. 19 of 1971: Established the Cayman Islands Currency Board.
- Cayman Islands, Cayman Islands Monetary Authority Law, No. 16 of 1996: Converted the currency board into a financial regulatory authority as well and allowed it to hold local assets of up to 10% of demand liabilities.

Exchange rate and currency system

- 1 May 1972-27 January 1974: Cayman Islands \$1 = £1 sterling. Initially the Cayman Islands intended the exchange rate to be Cayman Islands \$1 = US\$1, and that is how the 1971 Currency Law specified it. The law was amended in April 1972 to reflect that currency markets were going through a transition from widespread pegging to floating and to allow the governor of the islands to declare a parity in terms of sterling. On 1 May 1972, the day the Cayman Islands dollar began to circulate, the governor declared a parity of Cayman Islands \$2 = £1 sterling (CICB annual report 1971: 5th unnumbered page). The Cayman Islands dollar was at the time equal to the Jamaican dollar that it replaced. The changeover from Jamaican dollar to Cayman Islands dollar was essentially complete by the end of June 1971. Jamaican dollars remained legal tender through 31 August 1971 (CICB annual report 1971: 5).
- 28 January 1974-present: Cayman \$1 = US\$1.20 The government switched from sterling to the U.S. dollar as the anchor currency and revalued the exchange rate 10.1% to Cayman Islands \$1 = US\$1.20, in an attempt to control inflation. The Currency Law 1974 replaced the Cayman Islands Currency Law 1971 effective 1 April 1974 to enable the Currency Board to declare a parity in U.S. dollars, buy and sell U.S. dollars on demand, and hold the Currency Board’s assets in U.S. dollars (CICB annual report 1974: 3; 1975: 3rd page, unnumbered; 1982: 8). We believe that the change was announced on Friday, 25 January but did not become effective until Monday 28 January.

Initially the board charged a commission fee of +/-1% to the public and fees of 0.125% (selling) and 0.25% (buying) to banks. In addition, the Board charged Cayman \$2 per bag for all issues of coin

(1971: unnumbered page with section heading “The Currency Issue”). No fee is charged currently (CIMA annual report, 30 June 2010: 29).

The Cayman Islands dollar is a decimal currency, divided into 100 cents. The currency board and its successor the Cayman Islands Monetary Authority have issued coins of 1 cent to 25 cents and notes of \$1 to \$100. The currency board notes of \$40 and \$100 for the first time in 1981. The \$40 was according to the board the first issue of that denomination ever anywhere (CICB annual report 1981: 2nd unnumbered page). Subsequently the \$40 note proved to be not so popular because, and the number of \$40 notes at the end of 1984 was only 20% of those originally issued in 1981 (CICB annual report 1984: 6). In March 1987 the Board began issuing a \$50 note (CICB annual report 1987: 6).

Financial year; sources of data

The financial year was the calendar year until 2002. The 2003-2004 annual report covers 18 months, ending 30 June 2004, and contains financial statements for 30 June 2003 and 30 June 2004. Since then the financial year has ended on 30 June.

We have copies of all the annual reports of the Cayman Islands Currency Board and the Cayman Islands Monetary Authority from the start in 1972. Recent reports are available on the Web site of the Cayman Islands Monetary Authority.

The Cayman Islands Monetary Authority Web site shows quarterly data on currency in circulation. There is, however, no online database, so it is hard to determine when quarterly reporting of data began. High-frequency data may also exist in the government gazette, which we did not search.

The International Monetary Fund’s *International Financial Statistics* database has no data of the balance sheet of the monetary authority for the Cayman Islands.

Remarks on the balance sheet

The General Reserve held a minimum of 15% of demand liabilities (1987: 7). This was in excess of the 100% backing for notes and 10% minimum backing for all coins, ordinary and numismatic.

1989: The Currency Issue Reserve created in this year was to make provision for the costs of redesigning and printing new notes to be issued in 1991 (1989: 6).

2008: Stocks of unissued notes and coins were reclassified as local assets for the purposes of calculating the currency reserve. Applying the reclassification to 2007 figures raised the proportion of local assets from the original figure of 3.40% of demand liabilities to a revised figure of 4.67% of demand liabilities (CIMA annual report, 30 June 2008: 57).

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

The Cayman Islands Monetary Authority has published a statement of cash flows since its first annual report in 1997. We do not show it. From 2001 there is also a statement of changes in reserves and capital, which we likewise do not show.

The 1980 annual report for the first time shows monthly data, for currency in circulation since 1976, though only in a graph (CICB annual report 1980: 18 [pages are not numbered]), and numerical data starting December 1979 (CICB annual report 1980: 20).

The early annual reports of the Cayman Islands Currency Board contain statistics on trade and banking (e.g., CICB annual report 1971: 9-11), GDP, prices, government finances, and other magnitudes. Data became more extensive with the 1980 report. In later years, the statistics apparently moved to other publications. [Perhaps ask our source if he can get detailed historical information.]

Deviations from orthodoxy

1971: From the start, the Cayman Islands Currency Board had some power to hold local assets and to perform certain limited banking functions (CICB annual report 1971: 4th unnumbered page).

1980: The Cayman Islands repealed its Exchange Control Act in May 1980 (CICB annual report 1980: 7th unnumbered page). We assume that the act was left over from the time the islands were part of the sterling area and its exchange controls. The United Kingdom had abolished its exchange controls shortly before (CICB annual report 1982: 9). Exchange control began in British colonies during World War II as a way of preventing trade with the enemy and conserving foreign reserves. Convertibility among countries that used the pound sterling as their anchor currency remained complete. After the Cayman Islands switched from sterling to the U.S. dollar as its anchor currency, there do not seem to have been significant exchange controls that limited the convertibility into the U.S. dollar.

1981: An amendment to the Currency Law changed the reserve backing for coins from 100% of ordinary currency in circulation to at least 10% of the face value of all coins in circulation, ordinary and numismatic (1982: 10).

1996: Under the Monetary Authority Act of 1996, the domestic deposits of the Cayman Islands Monetary Authority could not exceed 10% of demand liabilities (CIMA annual report 1998: 28). In 2001 the limit was raised to 25% (CIMA annual report 2001: 32, 41).

Other remarks

We thank Joohyun Shim for digitizing the raw annual data from 1997-2009.

1971: The initial expenses connected with currency issue were charged to the government rather than absorbed the Currency Board (1971: 8).

1974: The Currency Law 1974 required that liquid securities equal at least 20% of the Board's demand liabilities and that the Board hold no security with a maturity longer than five years (CICB annual report 1975: 2nd unnumbered page). A 1981 amendment to the Currency Law extended the maximum maturity to seven years (CICB annual report 1981: 10). A 1986 amendment extended the maximum maturity to ten years (CICB annual report 1986: 7).

1976: Until October 1976, Barclays Bank International Limited was the Board's agent for the physical issue and redemption of notes. Then the Board's own staff began performing those functions (1976: 3rd unnumbered page).

Late in 1980 the clearing banks agreed to narrow their spread for U.S. dollars. The spread had been 82-85 Cayman Islands cents = US\$1. The banks agreed to a two-phase adjustment in January and July 1981, after which the spread would be 82.5-84.5 Cayman Islands cents = US\$1 (CICB annual report 1980: 6th unnumbered page). As it actually happened, the spread became 82-84 Cayman Islands cents = US\$1 effective 1 July 1981 (CICB annual report 1981: 7th unnumbered page).

1996: The 25th annual report of the Cayman Islands Currency Board contains a summary of the board's history up to that time.

1997: On 13 October 1997, First Cayman Bank and Gulf Union Bank were closed to permit further investigation into apparent irregularities at First Cayman Bank which came to light during the due diligence of a prospective purchaser. As a result of further investigations, irregularities were confirmed and on 17 October 1997, Executive Council revoked the licences of First Cayman Bank and Gulf Union Bank and applied to the Grand Court to wind up the affairs of both banks (CIMA annual report 1997: 12).

1999: During the year the Monetary Authority took enforcement actions against several institutions, the most notable of these being EuroBank. In May 1999, the Executive Council appointed controllers of the Bank, which held a Category "A" Banking Licence, to protect the interests of depositors and other creditors of the bank. The appointment was made for regulatory purposes under Section 14 of the Bank and Trust Companies Law. This followed the Monetary Authority's on-site inspection of EuroBank and a subsequent report by Coopers & Lybrand (now PWCs)... In June 1999, the bank was placed into voluntary liquidation. The actions taken in relation to the bank included a freeze on payments to depositors and creditors. At the end of 1999, the liquidators made a preferential payment to depositors for the maximum of CI\$20,000 under Section 162 of the Companies Law. This is the first time that this section of the Cayman Law dealing with preference payments to bank creditors has been invoked since its enactment in 1997 (CIMA annual report 1999: 6).

2003: Under a revision of the law, the Cayman Islands Monetary Authority rather than the government cabinet henceforth had the power to issue and revoke financial licenses and to exercise enforcement powers (CIMA annual report 2003: 6).

2004: On September 11-12, Hurricane Ivan caused damage to the Cayman Islands. The Cayman Islands Monetary Authority, however, suffered no significant damage and reopened on 27 September (says the 2004 annual report; the 2005 annual report says a week after the hurricane). Clearing banks reopened for withdrawals four days after the hurricane and resumed full business operations within two weeks (CIMA annual report, 30 June 2004: 66; 30 June 2005: 1).

2007: The annual report shows some multiyear information about counterfeiting. Counterfeit notes detected averaged less than \$5,000 per year (CIMA annual report, 30 June 2007: 23; see also 30 June 2008: 31).

It was typical to hold three meetings of the Board (e.g., CICB annual report 1979: 3rd unnumbered page). Later this was changed to two meetings (e.g., CICB annual report, 1995: 4). There was apparently a minimum set by law.

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Spreadsheets

Annual done; high-frequency data remain to be investigated.

Ceylon (now Sri Lanka)

Name, headquarters, dates, membership

Commissioners of Currency or Ceylon Currency Commissioners, headquarters Colombo, Ceylon (now Sri Lanka).

The note-issuing Oriental Bank Corporation failed on 3 May 1884 and the rival Chartered Mercantile Bank of India, London and China, whose note issue had been much smaller, was not legally allowed to meet all of the probable increase in demand for its notes. (Two other banks, the Bank of Madras and the Chartered Bank of India, Australia, and China, did not issue notes.) A financial panic began. The government of Ceylon responded by guaranteeing the notes of the Oriental Bank Corporation from 5 May 1884 to 31 March 1885 (Ceylon, governor's announcement of 5 May 1884, cited in Gunasekera 1962: 70-1; Shenoy 1941: 89, 91). On 1 April 1885 a currency board formally began to assume liability for the notes of the Oriental Bank Corporation backed that the government had guaranteed (Ceylon, Ceylon Paper Currency Ordinance, No. 32, 17 December 1884, cited in Shenoy 1941: 91). From 15 February 1885 to 31 March 1885 the government exchanged Oriental Bank Corporation notes at face value for currency board notes (Gunasekera 1962: 77). The Chartered Mercantile Bank of India, London and China ceased issuing notes in 1888 after its British charter came up for renewal. After achieving independence from the United Kingdom in 1948 the government of Ceylon began considering a central bank, as more appropriate than a currency board for a country that was no longer a colony. The Central Bank of Ceylon began operations on 28 August 1950, succeeding the Commissioners of Currency (Central Bank of Ceylon annual report 1950: 1).

Legislation

- Ceylon, Ceylon Paper Currency Ordinance, No. 32, 17 December 1884: Established the Commissioners of Currency.
- Ceylon, Ordinance No. 12 of 1886: Made the Commissioners of Currency a corporation to allow for smoother transitions in membership of the commissioners.
- United Kingdom, Coinage (Ceylon) Amendment Order in Council, 26 September 1901: Made the British gold sovereign (£1 piece) legal tender in Ceylon at 15 Ceylonese rupees. This in effect required the Commissioners of Currency to issue notes to persons who presented them with sovereigns.
- Ceylon, governor's proclamation, 25 October 1901 (reprinted in Fernando 2003 [1939]: 50): Put the British order in council concerning the gold sovereign into effect the day the proclamation was issued.
- Ceylon, Ordinance No. 13 of 1901: Permitted the Commissioners of Currency to receive gold as well as silver in exchange for currency notes.
- Ceylon, Ordinance No. 6 of 1903, 3 November 1903: Amended Ordinance No. 13 of 1901 to allow the currency board to issue notes in exchange for legal tender gold coins, but to refuse to do so when the board judged that it was inexpedient to increase its reserve of gold coins, as opposed to silver coins and securities. The currency board did not start issuing notes against foreign exchange (pounds sterling) until the First World War (Gunasekera 1962: 140, 154).
- Ceylon, Ordinance No. 11 of 1909 (cited in Shenoy 1941: 93): Amalgamated the Depreciation Fund with the Reserve Fund.
- Ceylon, Ordinance No. 33 of 1914 (cited in Fernando 2003 [1939]: 32): Concerns court cases about forged notes.
- Ceylon, Paper Currency Ordinance, No. 1, February 1917 (cited in Gunasekera 1962: 153-4, 273-4): The ordinance, a World War I emergency measure made retroactive to 30 December 1916 for legal purposes, in effect shifted the currency board from a combined foreign exchange / coin standard to more nearly a foreign exchange standard alone. The ordinance also authorized the

issue of 1- and 2-rupee notes and made the currency board's notes legal tender for the payment of any amount.

- Ceylon, proclamation of 7 August 1920 (cited in Fernando 2003 [1939]: 30): Removed gold coins from the reserve.
- United Kingdom, Order in Council of 13 August 1920: Removed the legal tender of the British gold sovereign (UK£1 piece), retroactive to 7 August. We infer that the sovereign had not circulated in practice since at least 1914 because its value as metal exceeded its value as money.
- Ceylon, Notification of 6 July 1931 (cited in Fernando 2003 [1939]: 29): Changed the membership of the Commissioners of Currency, substituting the Financial Secretary for the Colonial Secretary, the Deputy Chief Secretary for the Treasurer, and the Commissioner of Stamps for the Auditor-General.
- Ceylon, Notification of 17 January 1939 (cited in Fernando 2003 [1939]: 30): Changed the membership of the Commissioners of Currency, substituting the Deputy Financial Secretary for the Commissioner of Stamps.
- Ceylon, Ordinance No. 21, passed 27 May 1941, assented 25 June 1941: Following the advice of a committee of experts in London (Shenoy 1941: 183), officially established the Ceylonese rupee as a separate unit from the Indian rupee (the starting date was to be provided by a proclamation by the governor, and was later set for 1 September 1941). The Commissioners of Currency assumed liability for Ceylonese coins in circulation.
- Ceylon, Currency Amendment Ordinance, No. 1, published 31 January 1944: Amended provisions concerning demonetized coins and the Security Fund.
- Ceylon, Currency (Amendment) Ordinance, No. 57, 29 December 1944: Provided for direct exchange of Ceylon rupees into the pound sterling. The Commissioners of Currency never invoked the ordinance, so the Indian rupee remained the anchor and intervention currency.
- Ceylon, Currency Amendment Act, No. 40, 21 September 1949, established a gold parity of 2.88 grains (0.186621grams) for the Ceylonese rupee. The parity was equal to the parity of the Indian rupee. It was never effective in the sense that the Commissioners of Currency never paid out gold for Ceylonese rupees after the parity was established (see Gunasekera 1962: 249).
- Ceylon, Currency Amendment Act, No. 40, 21 September 1949: Established a gold parity of 2.88 grains (0.186621grams) for the Ceylonese rupee, equal to the gold parity of the Indian rupee.
- Ceylon, Monetary Law Act, No. 58, 16 December 1949: Established the Central Bank of Ceylon to replace the Commissioners of Currency.

Exchange rate and currency system

Throughout the life of the currency board, the exchange rate was 1 Ceylonese rupee = 1 Indian rupee. India was Ceylon's largest trading partner.

See the Legislation section above for the twists and turns in legislation.

Ceylon, Currency Amendment Act, No. 40, 21 September 1949, established a gold parity of 2.88 grains (0.186621grams) for the Ceylonese rupee. The parity was equal to the parity of the Indian rupee. It was never effective in the sense that the Commissioners of Currency never paid out gold for Ceylonese rupees after the parity was established (see Gunasekera 1962: 249).

Ceylon, Ordinance No. 21, passed 27 May 1941, assented 25 June 1941, provided that the commission for exchanging currency could not exceed 0.25% plus telegraph fees (section 17).

The Ceylon rupee, unlike the Indian rupee, was a decimal currency since well before Ceylon established a currency board, and was subdivided into 100 cents.

During its existence, the Commissioners of Currency issued coins of 0.25 cents to 50 cents. It issued notes from the start but did not take over issuance of coins from the government until 1941. Initially notes were for 5 to 100 rupees; in 1899 a 1,000 rupee note began to be issued (Ceylon annual report 1900: 10). During World War I the Commissioners introduced 1-rupee notes because the war made it hard to import coins, which were minted abroad (Ceylon Paper Currency [Amendment] Ordinance, No.

1 of 1917, cited in Ceylon annual report 1917: 21; Ceylon annual report 1927: 3). During World War II, the Commissioners similarly issued small-denomination notes of 5 cents to 50 cents as an emergency measure because the war again made it hard to import coins ([citation to come]). Indian silver rupee coins circulated widely until at least World War I, but by the 1920s they were little seen in circulation (Ceylon annual report 1927: 3).

Indian silver rupees were legal tender to any amount and Indian fractional coins were legal tender up to 5 rupees until [when?]. Ceylon did not issue silver rupees itself, only fractional coins. Because of the extensive use of Indian rupees in Ceylon, official publications stated that the coinage circulating in Ceylon could not be stated with any exactness. British gold sovereigns were legal tender at 15 rupees per sovereign by the British order of 1901 cited above (see also Ceylon annual report 1902: 11). The 1905 colonial annual report ceases to mention Indian subsidiary coins as being part of the currency (Ceylon annual report 1905: 7). A United Kingdom Order in Council of 13 August 1920 removed the legal tender of the British gold sovereign (UK£1 piece), retroactive to 7 August. We infer that the sovereign had not circulated in practice since at least 1914 because its value as metal exceeded its value as money.

Financial year; sources of data

The government financial year was originally the calendar year, 1 January to 31 December, but in 1910, it changed to 1 July to 30 June (Ceylon annual report 1909: 5; 1910: 1). The Commissioners of Currency at first used the calendar year as their financial year, but later—we assume in 1910—used the period 1 October to 30 September as its financial year for summing income and expenses.

The Commissioners of Currency issued no separately published annual report. The first monthly statement of the Commissioners of Currency was for May 1885. We have only a small number of monthly statements from the government gazette before 1905 but a nearly complete run from 1905 to 1950. We found no statements in the *Ceylon Gazette* for May–August 1941, suggesting that none were published. The Commissioners published no separate annual report. To fill in data for missing months we used other sources. The Ceylon colonial annual report has December balance sheet data in some years; we have copies of the relevant sections of all Ceylon colonial annual reports published from 1884 to 1938. Colonial annual reports contained some annual data; we have many of the colonial annual reports, but gaps remain. There is also some summary monthly data for the period 1900 to 1940 in Shenoy (1941: 248–262).

The International Monetary Fund's *International Financial Statistics* database does not cover Sri Lanka (then called Ceylon) during the period of the currency board.

Remarks on the balance sheet

Initially, the law required the Commissioners of Currency to hold at least half of their reserves in silver coins and half in investments, although they could let the silver reserves run as low as one-third of notes in circulation before replenishing them by selling investments (Ceylon, Paper Currency Ordinance, No. 33 of 1884, sections 12, 17). Ordinance No. 13 of 1901 allowed the Commissioners of Currency to hold reserves in gold as well as silver. They were required to receive silver or gold in unlimited amounts against issues of notes, but could redeem notes in gold or in silver Indian rupees at their discretion (Ceylon annual report 1901: 10). Ordinance No. 6 of 1903 removed the requirement that the Commissioners of Currency receive gold in unlimited amounts against issues of notes, leaving the matter up to their discretion. They were still required to receive silver in unlimited amounts. The reason for the change in the law was that the Commissioners had accumulated a large amount of gold in their reserves, while the demand for redemption was mainly for silver rupees. Initially the Commissioners set a limit of £200,000 sterling (total, not annually) on the amount of British gold sovereigns (£1 pieces) they would receive (Notification of 13 November 1903, cited in *Ceylon Government Gazette*, Part I, 6 February 1920: 177; Ceylon annual report 1903: 14, 40). Ceylon, Paper Currency Ordinance, No. 1, February 1917 (cited in Gunasekera 1962: 153–4, 273–4; see also Ceylon annual report 1917: 2), made retroactive to 30 December 1916 for legal purposes, allowed the Commissioners to issue notes against a credit at the Bank of England, as they had been doing since January 1917. In effect, Ceylon switched from holding

substantial reserves in gold or silver to holdings its reserves as foreign investments. The government withdrew the £200,000 limit by a Notification of 5 February 1920 (*Ceylon Government Gazette*, Part I, 6 February 1920: 177).

The balance sheet underwent several changes in format during the life of the currency board. The Depreciation Fund began in 1889. It included assets in excess of those backing currency in circulation. In July 1919 it was amalgamated with the Reserve Fund, under Ceylon, Ordinance No. 11 of 1909 (cited in Shenoy 1941: 93). Until 1909 the balance sheet did not always balance. Where the differences were small (0.17 Ceylonese rupees or less) they resulted from currency translation effects between the nondecimal pound sterling and the decimalized Ceylonese rupee. Where they were larger they resulted from lack of a balancing item incorporating net worth.

Remarks on the income and expenditure statement

Starting with the 1943 financial year, the *Ceylon Gazette* lists appropriations from the Currency Income Account. We have integrated the Currency Income Account with the income and expenditure statement because the Currency Income Account shows the balance carried forward from the previous year, which was in income and expenditure statements before 1943 but then ceased there, and because the Currency Income Account shows how funds were divided between retained earnings and distributions to the government.

We lack annual income and expenditure statements for 1886-1918, 1939-1941 (though we have a monthly statement for September 1941), and 1947. Fernando has some information on the early years that we may use in a subsequent version of this paper.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Foreign-exchange transactions with India were partly blocked at times during the First World War because of the instability of exchange rates. Transactions with the United Kingdom were likewise partly blocked even though the currency board was partly on a sterling exchange standard (Shenoy 1941: 159-160; Gunasekera 1962: 155-156). In January 1917, after India's government had the previous month in effect imposed a kind of exchange control by ceasing its former practice of providing drafts on London up to the amount demanded by the market, Ceylon's government issued new currency notes to the bank in exchange for credit in London, an expedient authorized by Ordinance No. 1 of 1917. Ceylon's government also made an agreement with India's government for credit for imports of food from India, to avoid a breakdown in the market for Indian exchange in Ceylon (Ceylon annual report 1917: 2).

Technically, Ceylon's currency board was required to hold a reserve of coin (gold or silver) equal to at least one-third of notes issued, but it instead held assets in Indian rupees and pounds sterling to such an extent that it violated the requirement (Gunasekera 1962: 224). This was not a deviation from currency board orthodoxy, since all the assets were foreign, though it was a deviation from the law.

1917: The Ceylon Coinage Ordinance, No. 33 of 1917, prohibited the melting of gold and silver coins. It was a World War I measure similar to those in force in the United Kingdom and India (Ceylon annual report 1917: 22). We do not regard it as a deviation from orthodoxy because it did not affect the convertibility of the Ceylon rupee into its anchor currency.

Other remarks

We thank Sean Villa and Oliver Simon for digitizing data.

Ceylon was a kind of financial satellite of India because of the importance of its trade and financial links to India. Financial transactions with the United Kingdom were typically financed through India (Ceylon annual report 1917: 2).

1917: The government transferred a portion of its gold reserve to an Indian bank to provide financing for imports of food from India, since commercial banks were unable or unwilling to do so (Ceylon annual report 1917: 2).

1931: “The chief medium of exchange in Ceylon is the currency notes issued by the Government of Ceylon” (Ceylon annual report 1931: 65).

1938: The Bank of Ceylon Ordinance, No. 53 of 1938, provided for establishing a government-aided commercial bank (Ceylon annual report 1938: 102).

Need 1913 and 1928 colonial reports—we have 1915 twice, once mislabeled 1913

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Spreadsheets

High-frequency done, though holes remain in the early years; no separate annual.

Cook Islands

Name, headquarters, dates, membership

Cook Islands Monetary Board, headquarters Raratonga, Cook Islands, [date] 1987-[date] 1995. The monetary system was no longer a currency board after [date] 1989.

The Cook Islands, a self-governing country in free association with New Zealand, issued its own currency to gain seigniorage. Previously the islands used the New Zealand dollar as their currency. The New Zealand dollar continued to be legal tender after the local currency began. After a short period the system diverged from currency board rules as the foreign reserve requirement was lowered well below 100%. A currency crisis eventually ensued. The Cook Islands then reverted to using the New Zealand dollar in 1995 and ceasing to issue local notes, except a \$3 note as a collector's curio.

Legislation

- Cook Islands, Currency Act 1986-87, No. 32, 15 April 1987: Authorized issuance of a local currency, the Cook Islands dollar, by the Cook Islands Monetary Board (which had been created by the Cook Islands Monetary Board Act, No. 18 of 1981). New Zealand notes (though not coins) continued to be legal tender also.
- Cook Islands, Currency Reserves Act, No. 7 of 1987: Required 100% backing in foreign reserves for the Cook Islands dollar.
- Cook Islands, Currency Reserves Amendment Act, No. 9 of 1989: Reduced foreign reserve backing on most notes and coins to 50%, with a still lower reserve of 2% for notes and coins intended for collectors.
- Cook Islands, further amendments to the Currency Reserves Act: Reduced the actual foreign reserve ratio further. We have not yet seen these.
- Cook Islands, Monetary Board Amendment Act 1994, No. 19, 25 October 1994: The membership of the Monetary Board became identical to the membership of the cabinet.
- Cook Islands, Currency Amendment Act of 1994-95, No. 31, 8 June 1995: Stripped all Cook Islands currency above \$3 of legal tender status and made the New Zealand dollar the sole monetary unit.

Exchange rate and currency system

The exchange rate was Cook Islands \$1 = New Zealand \$1. The Cook Islands dollar was a decimal currency, divided into 100 cents. The Cook Islands Monetary Board issued coins of 1 cent to \$5 and notes of \$3 to \$20 initially in 1987 and up to \$50 in 1992.

We do not know what the minimum size of an exchange was or whether there was a commission fee for exchanges.

Financial year; sources of data

The fiscal year ran from April 1 to March 31.

Our main source of data is Burdekin (2008).

The International Monetary Fund's *International Financial Statistics* database does not cover balance sheet data of the monetary authority for the Cook Islands.

Remarks on the balance sheet

We lack balance sheet data. Burdekin (2008: 108-109) shows some statistics, taken from Asian Development Bank (1995: 44-45).

Remarks on the income and expenditure statement

We lack income and expenditure data.

Remarks on other accounts and data

None.

Deviations from orthodoxy

As noted above, the Currency Reserves Amendment Act of 1989 reduced foreign reserve backing on most notes and coins to 50%, with a still lower reserve of 2% for notes and coins intended for collectors. The currency board system in effect ended at this point. See also “Other remarks” below.

Other remarks

We thank Richard Burdekin for sharing copies of Cook Islands legislation with us.

The Cook Islands Monetary Board had been established in 1981. It also had powers to act as a price control agency (Cook Islands, Cook Islands Monetary Board Amendment Act 1986, No. 10, 24 July 1986).

The reduction in the reserve ratio of the Monetary Board was followed by increased local currency issuance and greater government budget deficits and much higher government debt. After surpluses in the 1992-93 and 1993-94 fiscal years, there were renewed budgetary pressures for inflation in 1994. A run on the Cook Islands dollar occurred in the 1994-95 fiscal year. The two banks in the Cook Islands, ANZ and Westpac (both Australian) by the end of 1994 were refusing to convert Cook Islands dollars into New Zealand dollars at 1-to-1. At that point the Cook Islands government demonetized local currency greater than \$3. A contraction of the economy occurred (Burdekin 2008: 105, 107, 110).

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Spreadsheets

Under construction.

Cyprus

Name, headquarters, dates, membership

Cyprus Commissioner(s) of Currency, headquarters Nicosia, Cyprus, 10? September 1914 to 26 June 1963.

The government of Cyprus began issuing notes soon after World War I began, as an emergency measure to provide currency. The notes were originally intended to be retired from circulation after the war, but were found useful and repeatedly extended on a provisional basis until 1930, when the government established a permanent legal footing under regulations similar to those of other British colonial currency boards at the time. We suspect that from the start the Note Security Fund contained the equivalent of the note circulation, one of the features qualifying it as an orthodox currency board (Cyprus annual report, 1917/1918: 2). (However, restrictions on convertibility may initially have been significant.) The currency board became less orthodox in 1958 (see below). On 27 June 1963, the Central Bank of Cyprus replaced the Commissioner of Currency. Cyprus established the central bank to satisfy nationalist sentiment. The central bank issued its first notes on 27 June 1963 and its first coins in November 1963. The central bank took over administrative responsibility for issuing notes and coins from the Commissioner of Currency on 1 January 1964 (Central Bank of Cyprus annual report 1963: 19-21).

Legislation

- Cyprus, Currency Proclamation, 7 September 1914 (*Cyprus Gazette (Extraordinary)*, 8 September 1914: 8650-8652, item no. 12534): Established a government note issue as a wartime emergency measure. The notes are dated 10 September but we are uncertain if they were actually issued starting that day. The notes were to be redeemable (the law purposely neglects to say whether in gold or in pounds sterling) six months after the end of World War I, or earlier at the discretion of the government. The government Treasurer and Assistant Treasurer were appointed as currency commissioners. The power to issue currency existed by virtue of a High Commissioner's proclamation of 5 August 1914 declaring martial law (see *Cyprus Gazette (Extraordinary)*, 6 August 1914: 8609-8610, item no. 12475).
- Cyprus, High Commissioner's proclamation, 5 September 1917, in *Cyprus Gazette (Extraordinary)*, 10 September 1917: 357, item no. 451: Delayed the promised period of redemption until 18 months after the war ended.
- Cyprus, Provisional Powers Act, No. 13, 7 April 1919 (*Cyprus Gazette*, 4 April 1919: 184-185): Permitted the government to regulate dealing with coinage and currency notes and to issue currency notes for up to three years after the end of the war.
- Cyprus, High Commissioner's proclamations of 31 August 1921 (*Cyprus Gazette (Extraordinary)*, 1 September 1921: 373-374, items no. 437-438): World War I and war and martial law were declared to end on 31 August 1921, after the United Kingdom signed a peace treaty with Turkey. The currency provisions enacted under martial law continued in effect.
- Cyprus, Order in Council of 9 August 1924 (*Cyprus Gazette*, 15 August 1924: 249, item no. 396): Extended the validity of the notes until 31 August 1926.
- Cyprus, Order in Council No. 1132, 30 August 1926 (*Cyprus Gazette (Extraordinary)*, 31 August 1926: 557, item no. 586): Extended the validity of notes a further two years.
- Cyprus, Orders in Council Nos. 1249 and 1250, both 3 September 1928 (*Cyprus Gazette*, 7 September 1928: 631, items nos. 623 and 624): Extended the validity of notes a further two years, until 31 August 1930.
- United Kingdom, Cyprus Currency Notes Order in Council, 1 November 1928 (*Cyprus Gazette (Extraordinary)*, 16 January 1930: 23-27, item no. 60); Cyprus, Cyprus Currency Notes Rules proclaimed by the governor (in *Cyprus Gazette (Extraordinary)*, 16 January 1930: 27-28, item no. 61): Put the government note issue on a permanent legal footing (rather than the provisional

footing established during World War I and repeatedly extended since) under regulations similar to those of other British colonial currency boards at the time.

- Cyprus, Currency Notes (Amendment) Law, No. 9, 28 March 1935 (*Cyprus Gazette*, 29 March 1935, supplement no. 1: 225-227): Revised certain aspects of the Note Security Fund.
- Cyprus, Currency (Amendment) Law, No. 17 of 1958: Allowed the Commissioner of Currency to hold local government securities of up to Cyprus £3 million.
- Cyprus, Central Bank of Cyprus Law, No. 48 of 1963: Established a central bank to replace the Commissioner of Currency.

Exchange rate and currency system

The exchange rate was Cyprus £1 = £1 sterling throughout the life of the currency board. On 25 July 1962, Cyprus registered a gold parity with the International Monetary Fund of Cyprus £1 = 2.48828 grams gold = US\$2.80 (IMF, 34th *Schedule of Par Values*, 10 August 1962: 2, 10). The pound sterling remained the true anchor currency and the intervention currency.

The Commissioner of Currency was initially allowed to charge a commission fee of up to 0.25% (Cyprus Currency Notes Rules, 16 January 1930, *Cyprus Gazette (Extraordinary)*, 16 January 1930: 27-28, item no. 61). Notice No. 101 of 1931 reduced the fee to 0.1% (*Cyprus Gazette (Extraordinary)*, 30 January 1931: 47). The first mention we have seen of the currency board's minimum transaction amount specifies that it was £10,000 (*Cyprus Gazette (Extraordinary)*, 16 January 1930: 29, item no. 62).

For most of the life of the currency board, the Cyprus pound was divided into 180 piastres, with the piastre subdivided into 40 paras; these denominations were left over from the Ottoman rule that preceded British rule of the island (Cyprus annual report 1926: 5). The currency board did not issue coins, but it may be useful for readers to know that under British rule, coins were issued in denominations down to a half-piaster. Coins of 3, 9, 18, and 45 piasters were exactly equivalent to British coins of 6 pence, 1 shilling, 2 shillings, and 5 shillings, respectively. Accounts were kept in pounds, shillings, and piastres. Cyprus decimalized its currency on 1 August 1955, dividing the Cyprus pound into 1,000 mils (Currency (Amendment) Law, No. 28 of 1955). The new denominations of coins were 3 mils to 100 mils. The new denominations of notes were 250 mils and 500 mils, in addition to multiples of the pound that remained unchanged. Old coins ceased to be legal tender at the end of the year (Cyprus annual report 1955: 19-20).

During its existence, the Commissioner of Currency issued notes from 3 piastres (4 pence, or £0.01667) to £10, although notes below 10 shillings were only temporary issues. In the 1919/1920 financial year the government made an emergency issue of 1-shilling and 2-shilling notes until shilling coins arrived from England. Notes of 5 shillings and up were already in regular circulation (proclamation of 12 November 1919, *Cyprus Gazette*, 14 November 1919: 393, item no. 589; Cyprus annual report, 1919/1920: 5). During World War II, silver coins disappeared from circulation and the Commissioner issued notes for as little as 3 piastres (Cyprus annual report 1947: 14-15). The Commissioner did not issue coins; that was the responsibility of the general government, which issued coins of 0.25 piastre to 2 shillings before decimalization, and after decimalization, coins of 3 to 100 mils.

Financial year; sources of data

Initially, the financial year for Cyprus, and for its Commissioners of Currency ran from 1 April to 31 March. It changed to the calendar year in 1920: for that year there are both a colonial annual report based on the old financial year ending 31 March and a report ending on 31 December.

Our sources of data were the colonial annual report and blue book before 1930, and *The Cyprus Gazette* from 1930 onward. *The Cyprus Gazette*, the government gazette, shows balance sheet data twice a year, though no higher-frequency information on currency in circulation.

The International Monetary Fund's *International Financial Statistics* database does not cover balance sheet data of the monetary authority Cyprus during the period of the currency board.

Remarks on the balance sheet

A balance sheet began to be published stating with a statement for June 1930. The balance sheet in its original form shows an excess of assets over liabilities without a net worth balancing item. Some entries in the balance sheet use British pence as their lowest denomination, while others use Cyprus piasters, resulting occasionally in small differences because of currency translation.

Remarks on the income and expenditure statement

We found no income and expenditure statements for the currency board in the sources we consulted. Statements may exist in detailed published accounts of the government budget or in archives.

Remarks on other accounts and data

We collected some other monetary data from the colonial annual report and the blue books, such as bank deposits.

Deviations from orthodoxy

1914: Cyprus, High Commissioner's proclamation of 5 September 1914 prohibited the export of specie (*Cyprus Gazette (Extraordinary)*, 8 September 1914: 8660, item no. 12533). Cyprus, High Commissioner's proclamation of 19 September 1914 prohibited the export of currency notes (*Cyprus Gazette (Extraordinary)*, 21 September 1914: 8669, item no. 12557). The proclamations were World War I measures.

1917: Cyprus, High Commissioner's proclamation of 11 October 1917 required persons holding £100 or more in cash (coin) or notes at the end of the month to report the amount in writing to the government monthly (*Cyprus Gazette (Extraordinary)*, 13 October 1919: 374, item no. 500). The requirement was abolished by an order of the High Commissioner of 22 October 1920 (*Cyprus Gazette*, 29 October 1920: 503, item no. 566).

1958: The Currency (Amendment), Law, No. 17 of 1958 allowed the Commissioner of Currency to hold local government securities of up to Cyprus £3 million. The Commissioner took advantage of this provision. See the spreadsheet for the actual holdings, which first appear in the semiannual statement for 31 December 1958.

Other remarks

We thank Andrew Rosenberg for digitizing data from the colonial annual report and Victor Molho for digitizing data from the *Cyprus Gazette*.

The currency board backed notes only. Coins were a general government liability with no specific reserves held as backing.

The initial maximum of issue was initially £35,000 (Cyprus, Order in Council No. 602, 19 September 1914, item no. 12558, *Cyprus Gazette (Extraordinary)*, 21 September 1914: 8869), later increased to £100,000 (Cyprus, Order in Council No. 610, 5 December 1914, item no. 12707, *Cyprus Gazette*, 18 December 1914: 8753); £200,000 (Order in Council No. 687, 22 December 1916, *Cyprus Gazette (Extraordinary)*, 23 December 1916: 406, item no. 614); £300,000 (Order in Council No. 709, 24 July 1917, *Cyprus Gazette (Extraordinary)*, 25 July 1917: 269, item no. 347); £400,000 (Order in Council No. 721, 15 October 1917, *Cyprus Gazette*, 17 October 1917: 379-380, item no. 507); £600,000 (Order in Council No. 757, 28 November 1918, *Cyprus Gazette*, 29 November 1918: 301, item no. 553); and £700,000 (Order in Council No. 779, 10 October 1919, *Cyprus Gazette*, 17 October 1919: 358, item no. 526).

1914: A run on the Ottoman Bank in Cyprus occurred after World War I broke out because of concern about the bank's legal status (Ottoman, but with mainly British and French stockholders). The Cyprus government, we believe, either bailed it out or allowed it not to be classified as an enemy bank because the government's own funds were deposited there. Need to find a reference

1914: The original issue of notes, dated and September 1914, was called in and ceased to be legal tender after 17 December 1914 by a proclamation of 2 December 1914 (*Cyprus Gazette (Extraordinary)*, 3 December 1914: 8746, item no. 12685). Perhaps they were easy to forge, having been printed locally

rather than by a specialized note engraving firm? A proclamation of 10 September 1914 (*Cyprus Gazette (Extraordinary)*, 15 September 1914: 8665, item no. 12555) appointed two additional government officials as currency commissioners.

1915: A proclamation of 25 June 1915 ordered the redemption of notes dated 2 December 1914, which were to cease being legal tender after 30 June 1915 (*Cyprus Gazette (Extraordinary)*, 26 June 1915: 9039, item no. 13096). A proclamation of 2 September 1915 reconfirmed portions of existing proclamations (*Cyprus Gazette (Extraordinary)*, 4 September 1915: 9111, item no. 13216).

1917: A proclamation of 4 April 1918 forbade gold and silver coins commonly used for making payments in Cyprus from being melted down to make in to bullion (*Cyprus Gazette (Extraordinary)*, 12 April 1918: 98, item no. 191).

1917/1918: The Note Security Fund contained the equivalent of the note circulation, suggesting that the system was at least a quasi currency board from the start (Cyprus annual report, 1917/1918: 2).

1921: The Gold and Silver (Protection) Law, No. 20, 26 May 1921, forbade the melting down or use of gold and silver coin as anything but currency (*Cyprus Gazette*, 31 May 1921, supplement: 237).

1926: As a result of a report from abroad that 10-pound notes were being forged, they were demonetized in August 1926 (Cyprus annual report 1926: 8).

1930: The Cyprus Currency Notes Order in Council made by the British government was not published until this year (*Cyprus Gazette (Extraordinary)*, 16 June 1930: 23-27). The law put the Commissioner of Currency more formally on a legal basis like that of other British colonial currency boards of the period. The accompanying Cyprus Currency Notes Rules (pp. 27-28 of the same issue of the gazette) contained further details on the note issue.

1939: Cyprus Currency Notes (Amendment) Rules [insert description; we have not seen these] The Emergency Powers (Cyprus Defence) (Finance) Regulations, 1939, required residents to offer any gold or foreign (nonsterling area) currency in their possession for sale to the government, a World War II emergency measure similar to others enacted throughout the British Empire (notice in the *Cyprus Gazette (Extraordinary)*, 16 September 1939: 592, item no. 733).

1942: Cyprus Currency Notes Rules 1942 [insert description; we have not seen these].

1945: Cyprus Currency Notes (Amendment) Rules [insert description; we have not seen these].

1952: The Exchange Control Law, No. 30 of 1952 (referred to in *Cyprus Gazette*, 26 November 1952: 449, item no. 1022) entrenched certain exchange control procedures that had been adopted as World War II measures in 1939. The law did not affect the convertibility of the Cyprus pound into its anchor currency, the pound sterling. It went into effect apparently in late 1953 (*Cyprus Gazette (Extraordinary)*, 18 December 1953: 405, contents and item no. 883).

References

- Cyprus. Annual report. 1916/1917-1959. Great Britain (United Kingdom). Colonial Office, *Cyprus: Report for ...* (1917/1918-1930); *Annual Report on the Social and Economic Progress of the People of Cyprus* (1931-1938); Colonial Office, *Annual Report on Cyprus* (1946-1949), Colonial Office, *Report on Cyprus for the Year ...* (1950-1959). London: His / Her Majesty's Stationery Office. (This series was called Colonial Reports until World War II and Colonial Annual Reports afterwards; it was suspended during the war for most colonies.)
- Cyprus Blue Book. 1914/1915-1937. *The Cyprus Blue Book*. Nicosia: Government Printer. In Cyprus, Ministry of Education and Culture. (No issues are available online after 1937. The publication was at least partly succeeded by a publication we have not seen, referred to in the government gazette as *Statistics of Imports, Exports and Shipping, also Currency, Banking, Weights and Measures together with a Report by the Comptroller of Customs and Excise for the year ended*)
- Cyprus. Gazette. 1914-1963. *The Cyprus Gazette* (1914-1960); *Επίσημη Εφημερίδα της Κυπριακής Δημοκρατίας* (*Episemos ephemeris tes Kyriakes Demokratias*) (1960-1963). Nicosia: Government Printer. In Cyprus, Ministry of Education and Culture.

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Spreadsheets

High-frequency done; no separate annual data.

.Danzig (now Gdansk, Poland)

Name, headquarters, dates, membership

Danziger Zentralkasse, headquarters Danzig, 24 October 1923 to 16 March 1924. The Danziger Zentralkasse was a private corporation (*Aktiengesellschaft*, abbreviated A.G.) formed by the local banks to issue a temporary currency. The reason for issuing the currency was that the German mark, to which Danzig's own currency was then linked, was experiencing rapid depreciation during Germany's hyperinflation. Danzig was a League of Nations mandate created after World War I to give the newly reconstituted nation of Poland access to a usable neutral seaport rather than having to rely on German ports. The Bank von Danzig, a central bank, replaced the Danziger Zentralkasse as the issuer of currency on 17 March 1924. The motivation for establishing the central bank may have been the recommendations of League of Nations monetary conferences in Brussels in 1920 and Genoa in 1922, which had called for nations that did not yet have central banks to establish them.

Legislation

- Danzig, Monetary Law, 20 October 1923 (translated in U.S. Mint annual report, 30 June 1924: 147-148): Established the Danziger Zentralkasse.
- Danzig, Gesetz zur Einführung des Guldenwährung im Gebiet der Freien Stadt Danzig, 20 November 1923 (partly translated in Loveday 1924: 9-11; see also pp. 8, 14): Replaced the Danziger Zentralkasse with the Bank von Danzig, a central bank.

Exchange rate and currency system

The exchange rate was 25 Danzig gulden = £1. The currency was also known as the Zwischengulden (literally "in-between gulden," meaning temporary gulden).

The minimum amount for exchange was apparently 1,000 gulden. It is unclear whether there was an exchange commission fee.

The gulden was a decimal currency, divided into 100 pfennigs.

The Danziger Zentralkasse issued notes of 1 pfennig to 100 gulden. It did not issue coins. The notes were printed on one side only because they were intended to be temporary.

Financial year; sources of data

Since the Danziger Zentralkasse only lasted a few months, the precise duration of its financial year is irrelevant. We have been unable to find any report of it.

The International Monetary Fund's *International Financial Statistics* database does not cover Danzig.

Remarks on the balance sheet

None. Currently we lack data. Published in newspapers or the government gazette, perhaps?

Remarks on the income and expenditure statement

None. Currently we lack data.

Remarks on other accounts and data

None. Currently we lack data.

Deviations from orthodoxy

Apparently none.

Other remarks

None.

References

- Bank von Danzig. Annual report. 1924. *Verwaltungsbericht der Bank von Danzig für das Jahr 1924*
Danzig: Bank von Danzig. (Successor to the Danziger Zentralkasse.)
- Danzig. 1921-1939. *Gesetzblatt für die Freie Stadt Danzig*. Danzig: Verlag A. Schroth. [Princeton University Library has it for the relevant period]
- Grabowski, Hans-Ludwig. 2006. *Deutsches Notgeld: Band 10: Das Papiergeld der deutschen Länder von 1871 bis 1948—Die Banknoten und Notgeldscheine der deutschen Länder, Provinzen und Bezirke*, 2nd edition. Regenstauf, Germany: H. Gietl Verlag und Publikationsservice. [We have not yet seen this, which has some information on p. 199.]
- Loveday, [Alexander]. 1924. “Note on Danzig Currency Reform.” League of Nations, Financial Committee, F.151, 19 May 1924. [May be reprinted in the *Memorandum on Currency and Central Banking*; if so, use that as the citation since it is more readily accessible. The Loveday memo also has some kind of control number, 36231 on the top right of the first page]
- [Paul van Zeeland apparently had a 1924 book on monetary reform in Danzig published in French—where: Paris, Brussels, Geneva? See also the League of Nations archives for the primary report, and biographies of Zeeland from which we may be able to find the reference.]
- [League of Nations reports on Danzig, e.g. of the Danzig High Commissioner]

Spreadsheets

Needs investigation to find data.

Djibouti

Name, headquarters, dates, membership

- 20 March 1949 to 13 June 1967: Trésorerie de la côte française des somalis (Treasury of French Somaliland), headquarters Djibouti, French Somaliland. Issuance of currency under currency board rules replaced issue by a French commercial bank, the Banque de l'Indochine. The profit from issue therefore accrued to the Djibouti government.
- 14 June 1967 to 26 June 1977: Trésorerie du Territoire français des Afars et des Issas (Treasury of the French Territory of Afars and Issas), headquarters Djibouti, French Territory of Afars and Issas: The territory was renamed.
- 27 June 1977 to 2 December 1977: Trésorerie de la République de Djibouti (Djibouti Treasury), headquarters Djibouti, Djibouti. The Djibouti Treasury took over the operation of the currency board when Djibouti became independent from France.
- 3 December 1977 to 15 January 2005: Banque Nationale de Djibouti, headquarters Djibouti, Djibouti. Djibouti established an organization termed a central bank, though without all the powers usually granted to such an institution, as part of the set of institutions imitating those of most other independent countries.
- 16 January 2006 to present: Banque Centrale de Djibouti, headquarters Djibouti, Djibouti. The episode continues today.

Legislation

- France, Decrees No. 49-374 and 49-377, both 17 March 1949; arrêté of 19 March 1949: Nationalized the note issue (previously issued by the privately owned Banque de l'Indochine) and subjected it to currency board rules.
- Djibouti, ordonnance of 3 December 1977; Decree No. 79.030/PR, 18 April 1979: Gave the monetary authority some discretionary powers. We have not seen this law.
- Djibouti, Law No. 91/AN/05/5ème L, 16 January 2005: Changed the name of the monetary authority to Banque Centrale de Djibouti. We have not seen this law.
- Djibouti, Law No. 118/AN/11/6ème L, 22 January 2011: Consolidated changes in the charter of the Banque Centrale de Djibouti.

Exchange rate and currency system

- 20 March 1949-15 August 1971: 1 Djibouti franc = 0.00414507g gold; implicitly, 214.392 Djibouti francs = US\$1. The French arrêté of 19 March 1949 specified only a gold value, not a value in terms of the U.S. dollar. The dollar was, however, the anchor and intervention currency.
- 16 August 1971-17 December 1971: 1 Djibouti franc = 0.00414507g gold (nominally); implicitly, 214.392 Djibouti francs = US\$1. Gold convertibility for all countries ended in practice when the United States abandoned the gold standard on 15 August 1971, but the gold parity of the Djibouti franc remained on the books.
- 18 December 1971-12 February 1973: 1 Djibouti franc = 0.00414507g gold (nominally); implicitly, 197.466 Djibouti francs = US\$1. The United States devalued against gold, while the Djibouti franc remained unchanged.
- 13 February 1973-31 March 1978: 1 Djibouti franc = 0.00414507g gold (nominally); implicitly, 177.721 Djibouti francs = US\$1. The United States again devalued against gold, while the Djibouti franc remained unchanged.
- 1 April 1978-present: 177.721 Djibouti francs = US\$1. The system of gold par values officially ended at the start of this period by agreement of IMF members (International Monetary Fund, Board of Governors, Resolution No. 31-4, 30 April 1976 ["Second Amendment"]). (Djibouti did not join the IMF until 29 December 1978, after achieving independence on 27 June 1977, but as a

colony of France it had indirectly been a party to the Second Amendment because France had agreed to it.)

We have not seen reference to any commission fee. We do not know what the minimum exchange size is or was.

The Djibouti franc is a decimal currency, divided into 100 centimes. The monetary authority has issued coins of 1 to 500 francs and notes of 5 to 10,000 francs.

We have no information about exchange commissions or minimum transaction sizes.

Financial year; sources of data

The financial year is the calendar year.

During the period when currency was issued by the Djibouti Treasury, we have data from French archives. Data start in April 1949, with three weekly statements in that month, then become monthly, almost always from the last week but rarely the last day in the month, through December 1966 when the data end. Within that period, we are missing data for June 1952, February 1954, March 1955, and September 1965. We lack data from 1967 until International Monetary Fund data start in 1984. Data from 1967 until Djibouti's independence in 1977 may be available elsewhere in French archives. Data from 1977 onward should be available in Djibouti.

The monetary authority issued no annual report for many years. The first we have seen is the 1996 annual report of the Banque Nationale de Djibouti, although we think older published reports exist.

The International Monetary Fund's *International Financial Statistics* database begins coverage of the balance sheet of the monetary authority in December 1984. Its standardization of the balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

The monthly balance sheet from the French colonial period is very simple, listing as assets a dollar deposit at the French American Banking Corporation in New York; as liabilities, notes in circulation; and for some months, an excess of assets over liabilities constituting net worth.

Remarks on the income and expenditure statement

We have not found income and expenditure data from the French colonial period, although it may exist in archives.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Since 3 December 1977 the monetary authority has had some discretionary powers. Currently these include almost all the typical powers of a central bank, though it is not permitted to grant credit to the Treasury.

Other remarks

We thank Victor Molho for his research into archives in Paris, which unearthed monthly statements from the French colonial period. Kevin Zhang transcribed the data.

References

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Somaliland, French. Gazette. 1900-1967. *Journal officiel de la Côte française des somalis*. Djibouti (Paris, etc.): Charles-Lavauzelle et Compagnie. (Succeeded by Djibouti gazette.)

Spreadsheets

High-frequency done for now (further data may be hard to find); no separate annual data yet.

East African Currency Board

Name, headquarters, dates, membership

East African Currency Board, headquarters initially in London, then Nairobi, Kenya, from 22 August 1960 onward (East African Currency Board annual report 1960: 6). The move to Nairobi occurred soon before the member countries of the board started to become independent from Britain.

The board was constituted as a legal entity in December 1919 (EACB annual report 1972: 1). It began issuing currency perhaps on 22 May 1920 and certainly by 31 July 1920, when it took over the assets and liabilities of a predecessor currency board of the East Africa Protectorate (Kenya), which issued currency for Kenya and Uganda. The reason for establishing the board was to create a body that would also cover Tanganyika, which British forces had taken from Germany during World War I, and that would pay profits to all member colonies. The board ceased issuing currency on 10 April 1969, and was liquidated on 31 December 1972. We list 10 April 1969 as the last day of the Board's existence as an issuer of currency because that was the last day its coins were legal tender in Kenya, Tanzania, and Uganda (EACB annual report 1967: 70). The Board had ceased to be the monetary authority of East African countries earlier, though. The Board's notes and coins were demonetized on 31 December 1972 (EACB annual report 1972: 1).

The Board initially served Kenya, Uganda, and Tanganyika (now the mainland of Tanzania). Zanzibar (now part of Tanzania) joined in 1936. All were British colonies. During World War II the Board expanded its operations to Italian colonies occupied by the British army: Ethiopia, Italian Somaliland (now southern Somalia), and Eritrea. It also expanded into British Somaliland (now northern Somalia), which had previously used only Indian currency. After the war it also expanded into the British colony of Aden (later part of Southern Yemen; now part of Yemen). Ethiopia, Eritrea, and Italian Somaliland were never member governments of the East African Currency Board and never shared in the profits it generated.

The dates various countries started and stopped using East African currency are as follows:

- Kenya: 31 July 1920 to 13 September 1966 for notes; 31 July 1920 to 9 April 1967 for coins. Previously used a currency issued by a local currency board, the Currency Commissioners. Started using East African currency when the Board began operations, assuming the assets and liabilities of the Currency Commissioners. Kenya's central bank began issuing notes on 14 September 1966, but did not begin issuing coins until 10 April 1967. In the meantime, East African Currency Board coins remained the sole legal tender coins (EACB annual report 1967: 2). Legal tender ceased for East African Currency Board notes on 14 September 1967, and for coins on 10 April 1969 (EACB annual report 1967: 70; 1969: 1).
- Uganda: 31 July 1920 to 14 August 1966 for notes; to 9 April 1967 for coins. Previously used Indian and Kenyan currency. Started using East African currency when the Board began operations. Uganda's central bank began issuing notes on 15 August 1966, but did not begin issuing coins until 2 January 1967. In the meantime, East African Currency Board coins remained the sole legal tender coins (EACB annual report 1967: 2). Legal tender ceased for East African Currency Board notes on 14 September 1967 and for coins on 10 April 1969 (EACB annual report 1967: 70; 1969: 1).
- Tanganyika (now the mainland of Tanzania): 31 July 1920 to 13 June 1966 for notes; 31 July 1920 to 31 July 1966 for coins. Used locally issued German colonial currency until World War I, then used Kenyan and Indian currency alongside it after being occupied by British forces during the war. Started using East African currency when the Board began operations. The central bank of Tanzania (the union of Tanganyika and Zanzibar) began issuing notes on 13 June 1966, but did not begin issuing coins until 1 August 1966. In the meantime, East African Currency Board coins remained the sole legal tender coins (EACB annual report 1966: 2, 22). Legal tender ceased for East African Currency Board notes on 14 September 1967, and for coins on 10 April 1969 (EACB annual report 1967: 70; 1969: 1).

- Zanzibar (now part of Tanzania): 1 January 1936 to 13 June 1966 for notes; 1 January 1936 to 31 July 1966 for coins. Started using East African currency as a replacement for the Zanzibar rupee and became a member of the East African Currency Board at that time. The exchange rate was 1.50 East African shillings = 1 Zanzibar rupee (EACB annual report 1936: 4). The central bank of Tanzania (the union of Tanganyika and Zanzibar) began issuing notes on 13 June 1966, but did not begin issuing coins until 1 August 1966. In the meantime, East African Currency Board coins remained the sole legal tender coins (EACB annual report 1966: 2, 22). Legal tender ceased for East African Currency Board notes on 14 September 1967, and for coins on 10 April 1969 (EACB annual report 1967: 70; 1969: 1).
- Italian Somaliland (now southern Somalia): March 1941 to 21 May 1950. Previously used Italian-issued currency. Started using East African currency when the British Army took Eritrea from Italy during World War II. Ceased when Italy regained control of Italian Somaliland as a United Nations trusteeship territory and established a currency board-like institution for the territory. Never a member of the Board.
- British Somaliland (now northern Somalia, de facto independent as Somaliland and Puntland): about 30 April 1941 to 30 June 1960. Previously used Italian-issued currency and, before that, Indian currency. Started using East African currency when the British Army retook British Somaliland from Italy during World War II. Used the Indian rupee alongside East African currency until 30 September 1951. Used East African currency exclusively upon becoming a member of the Board on 1 October 1951. Ceased upon currency unification with Italian Somaliland shortly before the two territories united and achieved independence as Somalia. East African currency remained legal tender in the former British Somaliland through 25 June 1961 (Somalia, Decree Law No. 3, 30 June 1960, reprinted in Banca Nazionale Somala annual report 1960/1961: 274-282).
- Ethiopia: about 30 April 1941 to 14 April 1943. Previously used Italian-issued currency. Started using East African currency when the British Army liberated Ethiopia from Italian occupation during World War II. Ceased when Ethiopia re-established its own central bank. Never a member of the Board.
- Eritrea: 26 April 1941 to 14 September 1952. Previously used Italian-issued currency. Started using East African currency when the British Army took Eritrea from Italy during World War II. Ceased upon federating with Ethiopia, which involved using Ethiopian currency. Never a member of the Board.
- Aden (later part of Southern Yemen, now part of Yemen): 1 October 1951 to 31 March 1965. Previously used Indian currency. Started using East African currency several years after India became independent and the possibility for divergence between British and Indian monetary policy consequently increased. Became a member of the East African Currency Board at that time. Aden and neighboring territories, known together as the Federation of South Arabia, established their own quasi currency board, which began operations on 1 April 1965. East African currency remained legal tender alongside local currency for another three months (EACB annual report 1965: 40).

The East African Currency Board's Nairobi office closed on or slightly before 26 February 1971 (Gazette Notice No. 521, 26 February 1971, published in *Kenya Gazette*, 5 March 1971: 187).

Legislation

- Great Britain, Secretary of State for the Colonies, Regulations Defining the Constitution, Duties and Powers of the East African Currency Board, October 1920: Established the East African Currency Board.
- United Kingdom, Secretary of State for the Colonies, Regulations Defining the Constitution, Duties and Powers of the East African Currency Board, as Revised and Approved on 16th

September 1955: Allowed the East African Currency Board to hold up to East African £10 million in local securities.

- United Kingdom, Secretary of State for the Colonies, Regulations Defining the Constitution, Duties and Powers of the East African Currency Board, as Revised and Approved on the 23rd December, 1957, 23 December 1957: Raised the ceiling local securities to East African £20 million; it was further raised to East African £25 million in May 1963.
- The East African Currency Board was replaced by successor monetary authorities in its various member countries in a piecemeal fashion. In Kenya, where the Board by that time had its headquarters, the relevant legislation was Kenya, Central Bank of Kenya Act, No. 15, 24 March 1966.

Exchange rate and currency system

The exchange rate of the East African Currency Board throughout its existence was 1 East African shilling = 1 British (sterling) shilling. There was also a unit not established by law but widely used by convention, the East African pound, such that 20 East African shillings = East African £1 = £1 sterling. The East African shilling was a decimal currency, divided into 100 cents. Because the Board initially had its headquarters in London, financial statements in its annual reports through 1961 used the British pounds-shilling-pence system, under which £1 sterling = 20 shillings sterling (abbreviated “s.”) = 240 pence sterling (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). Mentions of currency units other than in the financial statements sometimes used East African cents rather than sterling pence as the lowest denomination, though. Starting in 1962, the financial statements switched to cents as the lowest denomination (EACB annual report 1962: 18-28).

The East African Currency Board was the successor to the Currency Commissioners of the East Africa Protectorate (Kenya). The currency that the Kenya commissioners issued was called the East African rupee. At first, the currency issued by the East African Currency Board was to have had the same name. Before the Board opened, though, the British government decided, at the request of British settlers, to change the name of the currency to the florin. The florin was a British coin worth two shillings, or £0.10, the same value as the East African rupee. During a conversion period, the East African Currency Board also accepted Indian rupees, which circulated widely in East Africa, as being equal to the florin or the East African rupee (EACB annual report 1921: 2-3). Small amounts of East African rupee notes and coins had already been manufactured before the British government decided to change the unit of account to the florin, so the Board issued them during the early months of its existence.

On 31 May 1921 the Board announced that effective 1 January 1922, it would change the unit of account to the East African shilling, equal to half a florin, one British shilling, or £0.05 (EACB annual report 1922: 3).

See “Remarks on the income and expenditure statement,” below, about commission fees. We do not have information on the minimum exchange amount, but suspect that it was £10,000.

The East African Currency Board issued both notes and coins from its first reporting period, although because of Board’s accounting practices, coins do not appear in the first balance sheet. British silver coins and their colonial counterparts had for many years been 222/240 (92.5%) silver. A sharp recent rise in the price of silver had made the coins’ value as metal exceed their face value. In response, the British government reduced the silver content of silver coins to 50%, keeping their face value unchanged. The first silver coins the East African Currency Board issued were likewise 50% silver (EACB annual report 1921: 2). Later the Board reduced the proportion of silver to 25%. The Board began issuing cupro-nickel alloy coins containing no silver in the first half of 1949 (EACB annual report 1949: 3). The Board issued coins in denominations of 1 cent to 1 shilling, and notes in denominations of 1 shilling to 10,000 shillings (£500). Banks used 10,000-shilling notes for clearing, although the public also used them somewhat (EACB annual report 1962: 7). The Board first issued the 1-shilling notes in the 1942/1943 financial year as a substitute for coins, which wartime conditions made difficult to supply. It ceased issuing 1-shilling notes from 1 April 1946, though some remained in circulation (EACB annual report 1943: 2; 1946: 4; 1972: 6).

East African currency was devalued along with the pound sterling against third currencies in November 1967. By then, the remaining member countries of East African Currency Board had all established national currencies to succeed East African currency, although there was still about East African £7 million in circulation, roughly one-tenth of the Board's peak circulation (EACB annual report 1968: 31, 35). The Kenyan, Tanzanian, and Ugandan governments, which did *not* devalue their national shillings along with the pound sterling, decided that their central banks would continue to accept East African shillings as equal to their national shillings. Anyone attempting to convert East African currency directly into pounds sterling through the East African Currency Board, though, would have continued to receive £1 sterling per East African £1. The East African Currency Board accepted the losses of these conversions because it was evident that the amount of currency likely to be redeemed was small (EACB annual report 1972: 10).

Financial year; sources of data

The East African Currency Board's financial year ran from July 1 to June 30. We presume that, like the West African Currency Board, which was in many respects its model, the East African Currency Board chose the end of its financial year to coincide with a time of low activity in local agriculture.

We have copies of all the East African Currency Board's annual reports. The Board's first regulations, of 22 May 1920 (though perhaps not published until October 1920; EACB annual report 1921: 8; see also 2, 9), required the board to publish a half-yearly financial abstract in the government gazette of the East African Protectorate (Kenya). The regulations of 11 December 1924, 11 July 1932, 29 October 1935 (a minor amendment), 8 August 1949, and 16 September 1955 continued the requirement and later extended the publication requirement to the government gazettes of all constituent territories (EACB annual report 1924: 10-11; 1932: 11-13; 1936: 11; 1949: 9-10; 1955: 10-11). Amendments of 23 December 1957 and 13 June 1966 did not affect the requirement (EACB annual report 1958: 8; 1966: 26).

Annual reports contain monthly statistics on currency in circulation and bankers' balances at the East African Currency Board from June 1966 onward. The East African Currency Board also published statements of the main items of its balance sheet in the *Kenya Gazette* for nearly the whole life of the board. Initially they were semiannual, but they became monthly from June 1963 onward. We have many of the statements from the gazette and have filled in some of the missing dates from the annual reports of the East African Currency Board.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet data of the East African Currency Board. It shows data for the successor central banks of Kenya, Tanzania, and Uganda starting in 1966.

Remarks on the balance sheet

How we constructed our standardized balance sheets

The accounting format the East African Currency Board used was by today's standards unusual, especially until it made changes in 1944. The balance sheet often referred to subaccounts rather than directly listing important items such as currency in circulation. The Board's original balance sheet (transcribed in the "raw data" spreadsheet) sometimes included fewer of its assets and liabilities than a typical balance sheet today would. To construct our standardized balance sheet, we sometimes had to supplement the original balance sheets with other data in the annual reports, rather than just repackaging the data in the original balance sheets.

For the years 1920 to 1933, we constructed the standardized balance sheet by the following procedure:

(1) On the asset side, the original balance sheet does not show the bullion value of coins in circulation, although it does show the bullion value of coins in storage. Bullion was mainly silver, and to a much lesser extent bronze. The silver content of the Indian rupee and similar coins the East African Currency Board replaced with its own coins was 92.5%. The silver content of East African Currency Board coins issued during the period was 50%, low enough that there it was there was little chance the Board would want to melt them down quickly for the silver. As a rough approximation, we assumed that

the bullion value of the Board's silver, nickel, and copper coins in circulation was a constant 25% of their face value. (Note, though, that the Board listed uncoined bullion at its cost or market value, so we did not need to reduce its value.) We obtained standardized assets by increasing the value of adding the bullion value of coins in circulation to the assets shown in the original balance sheet.

(2) On the liability side, the original balance sheet does not show coins in circulation. We obtained standardized liabilities by adding coins in circulation to the liabilities shown on the original balance sheet. The coins include East African rupees and East African florins as well as East African shillings.

(3) We calculated standardized net worth as standardized assets minus standardized liabilities. Net worth is part of the liability side of the standardized balance sheet.

From 1934 to 1943, almost all data in the standardized balance sheet come from the Estimated General Position, an accounting concept closer to a present-day balance sheet than the official balance sheet then was. The Estimated General Position excludes certain assets, namely accrued interest and premises and equipment in East Africa. We have made no attempt to calculate them. Note also that there were fluctuations here and in another account thanks to annual revaluations of the bullion value of silver coins according to the market price. Finally and most significantly, the Estimated General Position lists as assets two items that we classify instead as negative net worth. One is the pledge of East African governments to lend the Board £1.5 million if necessary to bolster its foreign reserves; the other is the "balance not specifically covered." We classify them as negative net worth because they are the difference between the Board's assets on hand (mainly securities and bank deposits) and its liabilities (mainly notes and coins in circulation).

From 1944 to 1962, data in the standardized balance sheet come from the original balance sheet.

From 1963 to 1967, we incorporated into the balance sheet some accounts related to international financial institutions. The East African Currency Board spent assets to contribute subscription funds to international financial institutions on behalf of its member governments (EACB annual report 1962: 2; 1963: 19). We included the unexpended balance at the end of the financial year in assets and an offsetting item in net worth. Note that assets in the original accounts become liabilities in the standardized balance sheet, and that liabilities in the original accounts become assets in the standardized balance sheet.

From 1968 to 1972, data in the standardized balance sheet come from the original balance sheet.

Remarks on the original balance sheets

1930: The East African Currency Board revised the presentation of its accounts. Among the changes it made was to value investments on the balance sheet at their market prices rather than at cost. Likewise, it also valued coin at the market value of its metallic content rather than at cost, resulting in a large reduction, about £900,000, in the Currency Reserve Fund (EACB annual report 1930: 5).

1944: The balance sheet began to incorporate items formerly included in the Estimated General Position, except for the line of credit of £1.5 million that East African governments had extended to it in 1933, when the Great Depression came close to exhausting its foreign reserves (EACB annual report 1944: 4). (For a fuller explanation, see the section "Deviations from orthodoxy," below.)

1958: The balance sheet henceforth excluded the metal content of coins as an asset (EACB 1958: 4).

1970: External assets included East African £3 million of advances to constituent governments, which represents an estimated of currency in circulation never expected to be redeemed. The governments agreed to assume a contingent liability should redemptions be higher than expected. Redemptions were apparently within expectations, though, so the contingent liability eventually disappeared.

Remarks on the income and expenditure statement

The income/expenditure statements of the East African Currency Board include flows of currency issued and redeemed. Hence to construct our standardized statements we followed the procedure described above in the section "Format of the standardized income and expenditure statement."

Our starting point for the years 1921-1962 was the original income/expenditure statement, called the Statement of Receipts and Expenditures. Beginning in 1963, the Statement of Receipts and Expenditures ceased and the Profit and Loss Account incorporated items previously in it, so the Profit and Loss Account became our starting point. As we have mentioned, from 1963 to 1967, the East African Currency Board spent assets to contribute subscription funds to international financial institutions on behalf of its member governments. We count the subscriptions as expenditures and enter an offsetting item in income to account for the assets spent on the subscriptions.

The East African Currency Board issued and redeemed notes and coins in East Africa in exchange for deposits of pound sterling in London. The Board charged premiums (fees) for issue and redemption, which appear as income in its income/expenditure statement. The premiums were effective on the following dates and were for the following amounts:

- Inception (22 May 1921 or possibly 31 July 1931): 0.5% for transfers between East Africa and London (EACB annual report 1922: 3-4).
- Later unspecified date in financial year ending 30 June 1922: 1% for transfers from East Africa to London, still 0.5% for transfers from London to East Africa (EACB annual report 1922: 3-4).
- 16 July 1931: 1.5% for transfers from East Africa to London, still 0.5% for transfers from London to East Africa (EACB annual report 1932: 4). (The increase in the fees for transfers to London came shortly before the United Kingdom and its sterling-linked colonies abandoned the gold standard.)
- 24 January 1935: 1% for transfers from East Africa to London, still 0.5% for transfers from London to East Africa (EACB annual report 1935: 4).
- August 1940: A reduced fee of 0.25% for transfers from London to East Africa for military requirements only, other rates unchanged (EACB annual report 1941: 2-3).
- 15 June 1942: 0.5% for all transfers to or from London, the reduced rate of 0.25% for transfers from London to East Africa still applying to military requirements only (EACB annual report 1942: 3).
- Financial year ending 30 June 1943: The reduced rate of 0.25% for all transfers from London to East Africa applied to all government transactions, not just military transactions, other rates remaining unchanged (EACB annual report 1943: 3).
- Financial year ending 30 June 1945: The reduced rate of 0.25% was also extended to transfers from London to East Africa on behalf of the government of South Africa (EACB annual report 1945: 4).
- 1 April 1946: 0.25% for all transfers to or from London (EACB annual report 1946: 4).
- 23 May 1962: 0.125% for transfers from London to East Africa, 0.375% for transfers from East Africa to London, 0.25% for all transfers between London and Aden, and 0.125% for all transfers between East Africa and Aden (EACB annual report 1962: 7, 14).
- 25 November 1964: 0.125% for transfers from London to East Africa, 0.5% for transfers from East Africa to London. The increase for transfers out of East Africa was designed to counteract in part the effect of a recent increase in the Bank of England's policy interest rate (EACB annual report 1965: 30).
- In what was called the "compensation market," nonbank transactors often tried to "marry" transactions to and from London to avoid going through the East African Currency Board and paying its transfer fees. In the financial year ending 30 June 1963 these transactions were conducted increasingly through banks. For amounts of East African £100,000 or more, banks charged 0.0625% for transfers from London to East Africa and, from 3 June 1963, 0.125% for transfers from East Africa to London. (It is unclear what the previous rate for transfers from East Africa to London was — perhaps 0.25% [EACB annual report 1963: 15].) Exchange controls imposed against the pound sterling on 11 June 1965 in all East African countries ended the legal compensation market, since the controls made all such transactions illegal without special permission (EACB annual report 1965: 18; 1966: 40).

- On 9 November 1927, the Board reduced the premium for transfers within East Africa from 0.25% to 0.0625%; we infer that the premium of 0.25% had existed since the financial year ending 30 June 1922. The premium ceased on 1 October 1946 (EACB annual report 1928: 4; 1946: 4).
- Because of Aden's distance from other member territories, starting in 1962 the Board imposed charges for bank remittances between Aden and East Africa to offset the effect of successive changes in its buying and selling rates for sterling in East Africa. The effective dates and the fees were as follows: 23 May 1962, 0.125% for transfers from East Africa to Aden, 0% for transfers from Aden to East Africa; 19 November 1962, 0.21875% for transfers from East Africa to Aden, 0% for transfers from Aden to East Africa; 18 February 1963, 0.21875% for transfers from East Africa to Aden, 0.1875% for transfers from Aden to East Africa; 18 May 1963, 0.125% for transfers from East Africa to Aden, 0.1875% for transfers from Aden to East Africa; 23 September 1963, 0.21875% for transfers from East Africa to Aden, 0.1875% for transfers from Aden to East Africa; 2 December 1963, 0.21875% for transfers from East Africa to Aden, 0% for transfers from Aden to East Africa; 24 March 1964, 0.125% for transfers from East Africa to Aden, 0.1875% for transfers from Aden to East Africa; 13 July 1964, 0.21875% for transfers from East Africa to Aden, 0% for transfers from Aden to East Africa; 2 September 1964, 0.21875% for transfers from East Africa to Aden, 0.1875% for transfers from Aden to East Africa (EACB annual report 1967: 11).

Remarks on other accounts and data

The annual reports contain the additional accounts listed below. Many of their balances are entries in the balance sheet. The names of some accounts varied over the course of their existence. The East African Currency Board had several systems of accounts during its existence: the initial system starting with its first report in 1921; a revised system in 1925, with some smaller changes in 1930; the addition of the Estimated General Position in 1934; a major revision in 1944; and a final revision in 1963. Each revision aimed to simplify the presentation of accounts.

1930: The East African Currency Board revised the presentation of its accounts. Among the changes it made was to value coin at the market value of its metallic content rather than at cost. The result was a large reduction, about £900,000, in the Currency Reserve Fund (EACB annual report 1930: 5).

1952: The East African Currency Board made its first payment of profits to member governments, out of its income from the 1951 financial year (EACB annual report 1952: 5).

1963: The Board simplified its system of accounts and brought it more in line with central banking practice, since by this time it was no longer an orthodox currency board, but a hybrid between a currency board and a central bank. The Trust Funds, established that year, were used mainly to pay the capital subscriptions that member countries owed when they joined international financial institutions.

Accounts below that lack dates appeared throughout the period under which they are listed.

Accounts 1921-1924

The first annual report covered the period 22 May 1920-30 June 1921, a slightly lengthened financial year.

- Silver Coinage Manufacture and Issue Account: Issuance of East African silver coins to replace existing silver coins, mainly British.
- Silver Coinage Profit and Loss Account: Various expenses connected with silver coins.
- Nickel Bronze Coinage Manufacture and Issue Account: Issuance of nickel bronze coins.
- Nickel Bronze Coinage Profit and Loss Account: Various expenses connected with nickel-bronze coins.
- Currency Note Issue Account: Notes issued, redeemed, and in circulation.
- Currency Note Profit and Loss Account: Various expenses connected with notes (paper money).

- Indian Currency Redemption and Repatriation Account: Various expenses connected with replacing Indian currency with East African Currency Board currency.
- German Rupees Redemption Account: Various expenses connected with replacing German silver rupee coins, which circulated in Tanganyika, with East African Currency Board currency.
- Florin Silver Coinage Redemption Account: 1923-1924. Various expenses connected with replacing East African florin coins with East African shilling coins after the shilling replaced the florin as the official unit of account.
- East Africa Protectorate Silver Coinage Redemption Account: 1923-1924. Various expenses connected with replacing old East Africa Protectorate silver coins with East African Currency Board currency.
- German Nickel and Copper Heller Coinage Redemption Account: 1923-1924. Various expenses connected with replacing small-denomination German-issued coins in Tanganyika with East African Currency Board currency. The German rupee had been subdivided into 100 heller.
- East Africa Protectorate Nickel Bronze Coinage Redemption Account: 1923-1924. Various expenses connected with replacing old East Africa Protectorate nickel-bronze coins with East African Currency Board currency.
- East Africa Protectorate Currency Note Account: 1922-1924. The balance of the reserves backing the note issue of the East Africa Protectorate (Kenya). The East African Currency Board assumed responsibility for the notes.
- Currency Reserve Fund: 1923-1924. Investments, including bank balances.

Accounts 1925-1943

- East Africa Protectorate Silver Coinage Redemption Account: 1925-1929. Various expenses connected with replacing old East Africa Protectorate silver coins with East African Currency Board currency. Subsumed into the Issue and Redemption Account after 1929.
- German Nickel and Copper Heller Coinage Redemption Account: 1925-1927. Various expenses connected with replacing small-denomination German-issued coins in Tanganyika with East African Currency Board currency. The German rupee had been subdivided into 100 heller. Hellers were redeemed at 1 heller = 2 East African cents starting on 1 December 1922 (EACB annual report 1923: 4). The account ceased after 1927 because redemption of heller coins had ceased on 15 August 1925 (EACB annual report 1926: 4).
- East Africa Protectorate Nickel Bronze Coinage Redemption Account: 1925-1929. Various expenses connected with replacing old East Africa Protectorate nickel-bronze coins with East African Currency Board currency. Subsumed into the Issue and Redemption Account after 1929.
- Currency Reserve Fund: Investments, including bank balances.
- Investment Reserve: 1932-1943. After the East African Currency Board began carrying the longer-term securities on its balance sheet at their market value instead of their cost price, it apportioned appreciation in the market value to this account as a reserve against possible depreciation.
- Manufacture Issue and Withdrawal Account: Currency manufacture, issue, withdrawal, and destruction. Incorporated items that in the previous period were in the Silver Coinage Manufacture and Issue Account, Nickel Bronze Coinage Manufacture and Issue Account, and the Currency Note Profit and Loss Account.
- Issue and Redemption Account: 1930-1943. Currency issued and redeemed. Incorporated items that earlier in this period were in the East Africa Protectorate Silver Coinage Redemption Account and East Africa Protectorate Nickel Bronze Coinage Redemption Account.
- Profit and Loss Account: Contains many income and expenditure items. Incorporated items that in the previous period were in the Silver Coinage Profit and Loss Account, Nickel Bronze Coinage Profit and Loss Account, and Currency Note Profit and Loss Account.

Accounts 1944-1962

- Silver Bullion and Metal Account: 1944-1958. Value as metal of coins in storage. Excludes coins in circulation. Incorporated items that in the previous period were part of the Manufacture Issue and Withdrawal Account.
- Investment Account: Investments in securities. Excludes bank balances. Incorporated items that in the previous period were part of the Currency Reserve Fund.
- Currency Reserve Fund: Investments, including bank balances.
- Income Distribution Reserve Account: 1961-1962. Funds distributed to member governments as earnings.
- Pensions and Gratuities Reserve Account: 1962 only. Pensions and bonuses.
- Profit and Loss Account: Contains many income and expenditure items.
- Profit and Loss Appropriation Account: Funds available to be distributed to member governments as earnings.

Accounts 1963-1972

- Profit and Loss Account: Contains many income and expenditure items. Incorporated items that in the previous period were in almost all other accounts.
- Currency Reserve Fund: 1963 only. Investments, including bank balances.
- Capital Contributions to Constituent Governments (part of Trust Funds): 1963 only. A payment to the International Monetary Fund for Tanganyika's "quota" (capital subscription).
- Subscriptions to International Financial Institutions (part of Trust Funds): 1963-1966. Payments to international financial institutions for the capital subscriptions of member countries of the Board.
- Subscriptions to African Development Bank (part of Trust Funds): 1964-1967. Payments to the African Development Bank for the capital subscriptions of member countries of the Board.

Other data

The annual reports also contain some other information we have partly or fully entered into spreadsheets, such as how much currency banks held and how much the public held. Many of the data series are only available for part of the East African Currency Board's existence.

Deviations from orthodoxy

The Kenyan currency board that preceded the East African Currency Board issued a currency equal to the Indian rupee. The Indian rupee was a silver coin, and silver experienced a sharp rise and then fall in its market price after World War I. Consequently, the rupee's value as metal briefly rose above its face value. After the East African Currency Board had been established in law but before it began operations, the British government in early 1920 stabilized the exchange rate of Indian silver rupees circulating in East Africa at 2 British shillings (£0.10) per rupee. Silver then depreciated against the pound sterling, so that the value of the silver coins exchanged for new currency was less than the value of the new currency. Hence the East African Currency Board inherited from its predecessors the Kenyan Commissioners of Currency a negative net worth of £246,016 9s. 3d., equal to about 27% of the Commissioners' note issue liabilities of £907,800. The Board also purchased 3.95 million German East African silver rupees at 1 East African florin or 2 British shillings each, adding to its negative net worth. At the end of its first financial year, the Board had a negative net worth of £540,617 8s. 1d., equal to almost 51% of its note issue liabilities of £1,067,991 (EACB annual report 1921: 4-5). Although the Board held 100% foreign assets at the margin, its relatively small initial reserves and a decline of currency circulation during the Great Depression led to *readily available* sterling assets shrinking to only 1.3% of currency in circulation (EACB annual report 1972: 5), although *total* foreign assets were higher. East African governments pledged to lend up to £1.5 million to replenish the Board's foreign reserves if they became exhausted (EACB annual report 1933: 5, 10-15), which however did not happen. The Board's circulation increased later in the 1930s, and World War II created a huge boost to circulation as a result of military spending, inflation, and the use of East African currency in former Italian colonies that

the British army occupied. Foreign assets did not reach 100% of liabilities until 1946 (EACB annual report 1946: 4, 7).

Starting on 12 February 1921, the East African Currency Board restricted the amount that banks were allowed to remit to London. The limit was £35,000 a week among all banks combined, excluding transactions for the government account. The purpose of the restriction was to limit arbitrage in Indian rupees (EACB annual report 1921: 4). When the East African Currency Board introduced its own currency to replace Indian rupees and other currencies circulating in East Africa, it accepted Indian rupees at 2 shillings (£0.10) per rupee, whereas the market rate fell as low as 1 shilling 3 pence (£0.0625). The annual reports do not say when the Board removed the restriction. We assume that it was early in the financial year ending 30 June 1922, because Indian rupees were demonetized then (EACB annual report 1922: 3).

On 16 July 1931 the East African Currency Board raised its fee for transfers from East Africa to London from 1% to 1.5% (EACB annual report 1932: 4). The Board's 1932 annual report explicitly states that the Board increased the premium on transfers from East Africa to London "to relieve the position," that is, to discourage transfers. The higher premium did not simply reflect higher clerical costs for the Board, so it was a modest exchange restriction.

The revised East African Currency Board Regulations of 16 September 1955 explicitly allowed the Board to purchase up to East African £10 million in East African securities (EACB annual report 1955: 11, paragraph 14). The Board began to do so in the 1956 financial year (EACB annual report 1956: 5); previously its holdings of East African securities had been small. An amendment of 23 December 1957 raised the amount to £20 million (EACB annual report 1958: 8). In May 1963 the Board raised its limit to £25 million (EACB annual report 1963: 12; EACB annual report 1965: 21 says the month was August). In September 1964 the Board asked for and received authorization from its member governments to raise the limit to £35 million (EACB annual report 1965: 21). The limit fell to £30.8 million after Aden ceased to be a member country.

In November 1960 the British Secretary of State for the Colonies allowed the Board to undertake this discounting and rediscounting of certain financial instruments related to the processing or marketing of crops (EACB annual report 1961: 7). Apparently the amount was £5 million (EACB annual report 1963: 12). Starting in the financial year ending 30 June 1962 the Board established rediscount rates for East African Treasury bills and for East African crop finance bills. In December 1962 the Board raised its limit from £5 million to £10 million (EACB annual report 1963: 12; EACB annual report 1965: 21 places this event at August 1963).

In May 1962 the Board announced its willingness to maintain deposit accounts for commercial banks, although banks were not required to maintain accounts (EACB annual report 1962: 7).

On 25 November 1964 the Board raised its fee for transfers from East Africa to London to 0.5%, versus 0.375% previously. The increase was designed to counteract in part the effect of a recent increase in the Bank of England's policy interest rate by discouraging short-term flows of capital out of East Africa. Because the rate of 0.5% was the maximum the Board's existing regulations permitted, to increase its ability to discourage short-term capital flows, the Board sought and in 1965 received authority from its member governments to increase its maximum fees to as high as 1% on either side of its central rate, the maximum allowed by the Articles of Agreement of the International Monetary Fund at the time (EACB annual report 1965: 30).

On 10 June 1965 East African governments announced measures extending exchange control regulations to the pound sterling, apparently disseminating the details the next day (EACB annual report 1965: 17-18; see also 1967: 12). The measures were a precaution against possible adverse reaction to announcements that each country intended to establish its own central bank rather than have the East African Currency Board continue as a regional monetary authority.

Other remarks

We thank Nikolaos Kotoulas for digitizing the high-frequency data on the East African Currency Board.

We believe that notes of the East African Currency Board had distinctive serial prefixes or numbers for each colony, although the notes were accepted throughout the Board's territory.

1933: First detection of counterfeits, in this case, coins (EACB annual report 1933: 4).

1937: Detection of 55 counterfeit coins. The apparent counterfeiter was discovered and sentenced to prison (EACB annual report 1937: 4).

1962: Banks charged fees for handling coins in bulk on behalf of customers, but abolished the fees in May 1962 when the East African Currency Board made some changes to its policies (EACB annual report 1962: 8).

1962: The annual report begins to contain discussion of economic conditions in member countries and statistics on the banking system.

1964: The annual report has monthly statistics of currency and bankers' balances (EACB annual report 1964: 41). We transcribe the statistics to our spreadsheet until they cease in June 1970. The previous report (EACB annual report 1963: 44) shows a graph of the series weekly starting in August 1962, but does not list precise figures.

1965: On 12 October 1964 the Board introduced a new series of notes, the "Lake Victoria" design. The 1965 annual report shows bankers' balances with the board twice a month from June 1962 (EACB annual report 1965: 73).

1972: The final annual report contains a brief history of the Board (EACB annual report 1972: 3-11). It also remarks (p. 11) that "Finally, after more than fifty years of such service, it [the Board] is closing down in a world which would have been almost unimaginable in 1919 when it was created, and where a country's currency can no longer be treated as a matter to be dealt with by a Board of the kind which it was first appointed to be, in isolation from the overall economic situation."

References

EACB. East African Currency Board. Annual report. 1920/1921-1971/1972. *Report of the East African Currency Board for the Period Ending the 30th June, 1921* (1920/1921); *Report of the East African Currency Board for the Year Ending [the] 30th June, ...* (1921/1922-1960/1961); *Report for the Year Ended 30th June ...* (1961/1962-1970/1971); *The Final Report of the East African Currency Board* (1971/1972). London: Waterlow and Sons (1920/1921-1958/1959; from appearances also 1959/1960-1960/1961, although no place or publisher is listed); Nairobi: Government Printer, Kenya (1959/1960-1964/1965); Printing and Packaging Corporation (1965/1966-1970/1971); East African Currency Board (1971/1972). The final report contains a brief history of the organization. Unless indicated otherwise, facts mentioned in the text will be found in the report covering the financial year for which they are mentioned. The text above lists financial years under the calendar years they end.

East Africa Protectorate. Gazette. 1920. *The Official Gazette of the East Africa Protectorate* (1920); *The Official Gazette of the Colony of Kenya and the East Africa Protectorate* (1920); *The Official Gazette of the Colony and Protectorate of Kenya* (1920-1957); *The Kenya Gazette* (1957-1972). Nairobi: Government Printer. (Some issues are available via Google Books.)

[We have the relevant pages of the Kenya Blue Book 1926-1938 and 1945-46 and the Tanganyika Blue Book 1947-1948, though the latter is mislabeled in its file title as being the Kenya Blue Book.]

Spreadsheets

Annual and high-frequency done.

Estonia

Name, headquarters, dates, membership

Eesti Pank (Bank of Estonia), headquarters Tallinn, Estonia. Notionally established on 1 January 1990, but at the time Estonia was still part of the Soviet Union, and the bank had no power; it was merely a shell organization that marked a protest against Soviet rule. After the Soviet Union collapsed and Estonia achieved real independence in December 1991 the Bank of Estonia began to exercise real power. Estonia used the Soviet/Russian ruble as its currency until it started issuing its own currency on 20 June 1992 (Eesti Pank annual report 2008: 27, 32). The reason for establishing a quasi currency board system was to issue a credible currency quickly. Steve H. Hanke and Kurt Schuler were involved in proposing the currency reform. The system operated as a quasi currency board from 20 June 1992 to 31 December 2010. On 1 January 2011 Estonia ceased to issue its own currency and adopted the euro. The Bank of Estonia became in effect a branch office of the European Central Bank.

Legislation

- Estonia, Law of the Republic of Estonia on the Security for the Estonian Kroon, 1992: Established currency board-like backing rule.
- Estonia, Law on the Central Bank of the Republic of Estonia (Bank of Estonia Act), 18 May 1993: Formalized the status of the issuing institution in post-independence law.
- Estonia, act of 22 May 2010: Enabling act for Estonia to join the European Central Bank and issue the euro in place of a national currency.

Exchange rate and currency system

The Estonian kroon was a decimal currency, divided into 100 senti (singular, *sent*). “Kroon” is Estonian for “crown”; the plural in Estonian is *krooni*. The exchange rates of the kroon were as follows:

- 20 June 1992 to 31 December 1998: 8 Estonian kroons = 1 German mark. The Estonian kroon was introduced from 20-22 June 1992 in exchange for Russian rubles at 10 rubles per kroon up to 1,500 rubles per person (Bank of Estonia annual report 2007: 25). Amounts beyond that were exchangeable at 50 rubles per kroon. Most wages, prices, and debts were converted at 10 rubles per kroon, which was fairly close to the prevailing interbank market rate of 75 rubles per German mark.
- 1 January 1999 to 31 December 2010: 15.6466 Estonian kroons = 1 European euro (see Bank of Estonia annual report 1998: “Monetary Policy”). This exchange rate was that implied by the rate at which Germany substituted the mark for the euro. On 1 January 2011, Estonia substituted the euro for the kroon at this exchange rate. Member countries of the euro area agreed to state conversion rates to six digits.

Initially the Bank of Estonia charged to commercial banks a small spread (commission fee) between buying and selling rates for the German mark. We are uncertain how large the spread was. The Bank of Estonia eliminated the spread in July 2006 (Eesti Pank annual report 2007: 28; 1996: chapter “Estonian Monetary Policy,” section “Activity of Eesti Pank in Designing the Operational Framework of Monetary Policy”). Initially the public was able to make exchanges directly—what was the minimum amount?—but the facility was ended because it was almost unused.

The Bank of Estonia issued coins from 5 senti to 5 kroons and notes from 1 to 500 kroons.

Financial year; sources of data

The Bank of Estonia’s financial year was the calendar year.

The Bank of Estonia’s first annual report from the period was for 1993, which also covered 1992 in the financial statements and to some extent in the narrative. The Bank of Estonia has confirmed to us by e-mail that it issued no 1992 annual report. All the annual reports available on the bank’s Web site,

although reports from 1993 to 1998 are only in HTML format, so we cite only section headings rather than page numbers for those years.

The Bank of Estonia publishes certain daily and monthly data that are available on its Web site. The International Monetary Fund's *International Financial Statistics* database shows certain quarterly or monthly monetary data starting as far back as December 1991.

Starting as early as December 1991, the International Monetary Fund's *International Financial Statistics* database shows certain balance sheet items of what would become the revived Bank of Estonia. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

There were changes to accounting standards in 2001 (Eesti Pank annual report 2001: 96-7). For 2000, we use the original statement rather than the revision that appears in the 2001 annual report. Differences are slight. The format of the balance sheet changed substantially in 2006 to standardize it with rules applying to the European System of Central Banks, of which the Bank of Estonia became a member when it Estonia joined the European Union in 2004 (Eesti Pank annual report 2006: 72). We show figures for 2005 both in the old and the new presentations.

1992: On 23 January 1992, Estonia's Supreme Council allocated the Bank of Estonia forestry rights from the State forestry reserves with their value estimated in 1992 of US\$150 million. The rights were available to meet obligations, if any, at the discretion of the bank (Eesti Pank annual report 1995: "Financial Statements for 1995 of Eesti Pank," section "Off Balance Sheet Assets (Property Rights)").

1993: Apparently starting on 1 April 1993, the Bank of Estonia began issuing 28-day certificates of deposit at auction to provide commercial banks with a highly liquid financial instrument to promote the development of a money market (Eesti Pank annual report 1993: "Development of the Banking System in 1993").

1994: On 4 April 1994 the Bank of Estonia began quoting Estonian kroon-German mark forward contracts and swaps for maturities up to seven years. The purpose of this step was to deepen confidence in the durability of the exchange rate. The bank imposed certain limits on the amount of these contracts (Eesti Pank annual report 1994: "Estonian Financial Market"). An outside analysis of these contracts called them a "poison pill," because if the government had devalued the kroon it would have been expensive to honor the contracts (Åslund, Boone, and Johnson 1996).

1995: The bank ceased offering forward contracts in German marks in March 1995, although existing contracts remained outstanding (Eesti Pank annual report 1995: "Financial Statements for 1995 of Eesti Pank," section "Contingencies and Commitments").

1997: From this year onward the financial statements show amounts in thousands of Estonian kroons. We have converted the data to unit kroons for compatibility with earlier statements.

1997: A parliamentary decision of 2 June 1997 removed the forestry rights the Bank of Estonia had had since 1992 (Eesti Pank annual report 1997: "Notes to the Financial Statements of Eesti Pank," section "Off Balance Sheet Assets (Property Rights)").

2009 and 2010: There is an error or a rounding omission of 2,000 Estonian kroons among the liabilities, otherwise liabilities do not equal assets. We have inserted a line to make the accounts balance.

Remarks on the income and expenditure statement

The financial statements show expenditures with a negative sign. We show them without a negative sign.

The way the Bank of Estonia presented the income and expenditure statement changed slightly in 1994 and substantially in 2006. We fit the 1992 statement into the format used starting in 1994. The 1994 annual report restates the 1993 statement in the new format, and we use the new format rather than the original format and the figures that the 1993 annual report shows. The format of the income and expenditure statement (which the Bank of Estonia called the Statement of Profit and Loss) changed modestly in 2006 to standardize it with rules applying to the European System of Central Banks, of which

the Bank of Estonia became a member when it Estonia joined the European Union in 2004 (Eesti Pank annual report 2006: 72). We show figures for 2005 both in the old and the new presentations.

1997: From this year onward the financial statements show amounts in thousands of Estonian kroons. We have converted the data to unit kroons for compatibility with earlier statements.

2004 and 2009: There is an error or a rounding omission of 1,000 Estonian kroons among the income in 2004 and the expenditures in 2009, otherwise income does not equal expenditure. We have inserted entries a line to make the accounts balance.

Remarks on other accounts and data

Starting in 1997 (which also has data for 1996), the annual reports also show changes in equity, which we have not reproduced.

Deviations from orthodoxy

Initially Estonia had some exchange controls, but they were restrictions on holding or making certain foreign transactions in certain currencies, not restrictions on exchange of Estonian kroons into the anchor currency. Exchange rate regulations, already liberal by the standards of economies just emerging from central planning, were further liberalized on 21 January 1993, when the Bank of Estonia approved the draft law for cancelling the Foreign Currency Law (Bank of Estonia annual report 1993 online, “Foreign Exchange Regulations,” no page number).

1992: Reserve requirements for commercial banks were in effect from the moment Estonia established an independent currency (Bank of Estonia annual report 1996 online, “Estonian Monetary Policy” section, Table 32, no page number). There had been regulations comparable to reserve requirements under the Soviet banking system, so this was not really a new development.

1994: In February, the Bank of Estonia removed all restrictions on commercial banks’ open-market German mark positions. In March, the parliament revoked the law on foreign currency, removing the last restrictions on foreign exchange transactions and allowing resident individuals to open foreign currency accounts. In practice, for some time before that, the government had reduced foreign exchange restrictions step by step and not strictly enforced those that were left (Eesti Pank annual report 1994: “Monetary Policy Survey”).

1994: The Bank of Estonia lent funds to two failing banks, Eesti Sotsiaalpank (Estonian Social Bank, or ESP) and Eesti Tööstuse Arengu Pank (ETAP). The loans totaled 262,116,875 Estonian kroons (Eesti Pank annual report 1994: “Notes to the Financial Statements of Eesti Pank”).

1998: The Bank of Estonia bought a 57.9% share in Optiva Bank, which was created from a merger of two other banks with inadequate capital (Eesti Pank annual report 1998: “Financial Sector,” “Banking Supervision”). It sold the holding in mid 2000 (Eesti Pank annual report 2000: 51).

Other remarks

We thank Joohyun Shim for digitizing the raw data.

1992: Estonia experienced a crisis of its three largest banks in November related to its transition from a part of the centrally planned Soviet banking system to a market-driven system in an independent country. During the Soviet period, state-owned banks had accumulated large amounts of assets that turned out to be bad (Eesti Pank annual report 1993: “Development of the Banking System in 1993”; 2007: 26-27).

1994: In August, Eesti Sotsiaalpank (Estonian Social Bank, or ESP) and Eesti Tööstuse Arengu Pank (ETAP) encountered problems and a moratorium was imposed on the Social Bank. Eesti Sotsiaalpank had been the largest bank at the start of 1994, with 15% of the market (Eesti Pank annual report 1994: “Banking Supervision”; 1995: “Financial Intermediaries”).

1995: “The majority of inter-bank clearings within Estonia pass through Eesti Pank.” Many international payments also passed through the bank (Eesti Pank annual report 1995: “Clearing System”).

1996: In July, the Bank of Estonia reduced to zero the small spread (commission fee) between buying and selling rates for the German mark that it had previously charged to commercial banks (Eesti

Pank annual report 2007: 28; 1996: chapter “Estonian Monetary Policy,” section “Activity of Eesti Pank in Designing the Operational Framework of Monetary Policy”).

1997: The Estonian kroon experience speculative attacks in the second half of the year arising from fear created by the East Asian financial crisis (Eesti Pank annual report 1997: “Estonian Economy”). The Bank of Estonia responded by increasing bank liquidity requirements while at the same time increasing the interest it paid on commercial bank deposits with it (Eesti Pank annual report 1997: “Monetary Policy”).

1998: Three small banks failed or were liquidated: Eesti Maapank (Land Bank of Estonia, market share 3%); EVEA Pank (market share 2%); and ERA Pank (2%). The Bank of Estonia also bought a 58% share in Optiva Bank, a bank created by the merger of Eesti Foreksbank (Estonian Forexbank, market share 5%) and Eesti Investeerimispank (Estonian Investment Bank, market share 4%) to forestall risks of instability in the banking system; the banks had failed to meet requirements for capital adequacy (Eesti Pank annual report 1998: “Financial Sector,” “Banking Supervision”).

2002: The Bank of Estonia ceded authority for regulating financial institutions to a new, independent Financial Supervision Authority (Eesti Pank annual report 2002: 65).

2008: The annual report contains an overview of the history of the Bank of Estonia before and after Soviet occupation (Eesti Pank annual report 2008: 24-56).

References

- Åslund, Anders, Peter Boone, and Simon Johnson. 1996. “How to Stabilize: Lessons from Post-Communist Countries.” *Brookings Papers on Economic Activity*, no. 1, 217-291. http://www.brookings.edu/~media/projects/bpea/1996-1/1996a_bpea_aslund_boone_johnson_fischer_ickes.pdf, viewed 17 December 2014. See pp. 280-281.
- Eesti Pank (Bank of Estonia). Annual report. 1993-2010. *Eesti Pank Annual Report*. Tallinn: Eesti Pank. (Also in Estonian. All references are to the English version.)
- Eesti Pank (Bank of Estonia). Web site. <http://www.eestipank.info>, viewed 2 July 2011. Among other things, the site contains material on the history of the Estonian kroon and the Bank of Estonia.

Spreadsheets

Annual and high-frequency done.

Falkland Islands

Name, headquarters, dates, membership

Falkland Islands Commissioners of Currency, headquarters Stanley, Falkland Islands, 16 October 1899 to present. Because there was no bank in the Falkland Islands at the time, there was no local paper currency. The government established a paper currency to provide a lighter and more convenient medium than gold or silver coins for hand-to-hand payments (Falkland Islands annual report 1899: 7). The episode continues today.

Legislation

- United Kingdom, Falkland Islands Currency Note Order, 7 March 1899: Established the Commissioners of Currency.
- Falkland Islands, Falkland Islands Currency Notes Ordinance, No. 11, 10 October 1930: Placed the issue of currency notes on a “permanent” basis through a local ordinance as opposed to the previous British decree. Removed the requirement to hold at least half of reserves in coin.
- Falkland Islands, Falkland Islands Currency Notes Rules, 1931: We have not yet seen these.
- Falkland Islands, Falkland Islands Currency Notes (Amendment) Ordinance, No. 8, 4 November 1933: Permitted the governor of the Falkland Islands, subject to the approval of the British government, to make certain rules, including about the redemption of old notes.
- Falkland Islands, Falkland Islands Currency Notes (Amendment) Rules, 19 December 1933: Provided that the oldest notes would cease to be redeemed after 31 December 1934.
- Falkland Islands, Falkland Islands Currency Notes (Amendment) Rules, 25 October 1934: Provided that old notes presented from 1 January 1935 could be redeemed for legal tender.
- Falkland Islands, Falkland Islands Currency Notes (Amendment) Ordinance, No. 5, 18 July 1935: Deleted a provision of the 1930 ordinance concerning spurious notes.
- Falkland Islands, Falkland Islands Currency Notes Rules, 6 April 1939: Established detailed procedures for keeping track of notes issued, in stock, and destroyed.

Exchange rate and currency system

The exchange rate has always been Falkland Islands £1 = £1 sterling.

The ordinance of 1930 permitted the governor of the Falkland Islands to establish a transaction fee of up to 1%, subject to the approval of the British government. We do not know what the actual fee or the minimum size of transactions has been, although the minimum size may initially have been £1,000, as it was for some other small currency boards.

Like the United Kingdom at the time, the Falkland Islands used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). The Falkland Islands decimalized with the United Kingdom on 15 February 1971, dividing the pound into 100 new pence and eliminating the shilling as a unit of account (Falkland Islands annual report 1968 & 1969: 22).

The Commissioners of Currency have issued notes of 5 shillings (£0.25) to £50. The 5-shilling notes were issued starting in 1901, but they had limited circulation because the public for the most part did not want them (Falkland Islands annual report 1901: 7). Later the Commissioners ceased issuing them. The Falkland Islands had no local coins until 1974; until then, they used British coins. Since 1974, the Commissioners of Currency have issued coins of 0.5 pence to £2.

Financial year; sources of data

The financial year seems originally to have run from 1 October to 30 September; that at least was the financial year for the Government Savings Bank (Falkland Islands annual report 1918: 8). Currently the financial year runs from 1 July to 30 June. We are not certain when the change occurred.

We have copies of the relevant sections of all published Falkland Islands colonial annual reports published from 1899 to 1974-1975 except 1922 and 1925. No reports were published from 1939 to 1946 because of World War II. Colonial annual reports contained some annual data. We have scattered annual financial reports of the currency board from 1976 to 2011, except 1978 to 1984.

Higher-frequency data than the annual data we collected may exist in the government gazette, which we did not search.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet data of the monetary authority of the Falkland Islands.

Remarks on the balance sheet

Initially, the Commissioners of Currency were required to hold at least half their reserves in cash (gold coins); the remainder was invested in various British Empire securities (Falkland Islands annual report 1904: 6).

The Commissioners were required to set aside profits equal to 1% of notes in circulation per year for a Depreciation Fund until it reached 10% of the investment portion (Investment Fund) of the Note Guarantee Fund, which initially meant the equivalent of 5% notes in circulation (Falkland Islands annual report 1905: 7-8).

1988: The Currency Ordinance 1987 changed the structure of the balance sheet. Instead of a Note Security Fund and a Coin Security Fund, there was now a Currency Fund, covering notes and coins alike, and a Fund General Reserve, required to equal at least 10% of the demand liabilities of the Currency Fund (Falkland Islands Government Currency Fund annual report, 30 June 2010: 1).

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

None.

Deviations from orthodoxy

None.

Other remarks

We thank the government of the Falkland Islands for supplying us with many currency board reports. We thank Andrew Rosenberg for digitizing the data from the colonial annual report.

1888: A Savings Bank was established pursuant to the Savings Bank Ordinance, 1888 (Falkland Islands annual report 1918: 8).

1914: In anticipation of a possible raid by the German navy near the start of World War I, the Commissioners of Currency destroyed some of notes, which explains why note circulation fell so much from the previous year. The Commissioners also transferred their gold reserve to London and deposited it with a bank (Falkland Islands annual report 1914: 5).

1915: The Commissioners of Currency reissued notes to replace those destroyed the previous year, partly accounting for the increase in note circulation. The Commissioners resumed the practice of holding some gold locally, although they retained the deposit in a London bank from the previous year. The deposit was by the Crown Agents for the Colonies as agents for the Commissioners (Falkland Islands annual report 1915: 6).

1930: The Falkland Islands Currency Notes Ordinance, 1930, apparently made changes to the 1899 Order in Council that the colonial annual report does not specify (Falkland Islands annual report 1930: 8).

1973: Interest at the government savings bank was increased from the longtime rate of 2.5% to 3.5% from 1 July 1973 (Falkland Islands annual report 1972 & 1973: 16).

1983: The Falkland Islands had no commercial bank until Standard Chartered Bank established a branch in Stanley in December 1983 (Standard Chartered Bank Falkland Islands Web site, <http://www.standardchartered.com/fk/about-us/en/>, viewed 10 October 2011). Before this, remittances could be made through the Commissioner of Currency in Stanley and the Crown Agents for the Colonies in London at a charge of 1%. The Falkland Islands Company, who acted as bankers or financial agents for the farms (mostly sheep farms) of the colony, performed a similar service (Falkland Islands annual report 1936: 14). An annual report from the early 1950s mentions that the Falkland Islands Company acted as the agent for Lloyds Bank and the Estate Louis Williams acted as the agent for Hambros Bank, another London bank (Falkland Islands annual report 1952 & 1953: 9).

References

- Falkland Islands. Currency Fund. Annual report. *Falkland Islands Government: Currency Fund: Financial Statements for the Year Ended 30 June ...* (2007/2008-2008/2009). Public Accounts Committee Web site. <http://www.pac.org.fk>, viewed 23 September 2011. (Recent reports.)
- Falkland Islands. Annual report. Great Britain (United Kingdom), Colonial Office, *Report for ...* (1899-1930); Colonial Office, *Annual Report on the Social and Economic Progress of the People of the Falkland Islands* (1931-1938); not published 1939-1946 because of World War II; Colonial Office, *Falkland Islands* (1947-1965); Commonwealth Office, *Annual Report on the Falkland Islands for the Year ...* (1966-1967); Foreign and Commonwealth Office, *Falkland Islands and Dependencies: Report for the Years (1968 & 1969-1974 & 1975)*. London: His / Her Majesty's Stationery Office. (This series was called Colonial Reports until the Second World War and Colonial Annual Reports afterwards; it was suspended during the war for most colonies.)

Spreadsheets

Annual under construction; apparently no high-frequency data.

Faroe Islands

Name, headquarters, dates, membership

Valuta-Central (currency board), government of the Faroe Islands (Føroya Amt), headquarters Thorshavn (in Faorese, Tórshavn), 14 October 1940-11 April 1949.

The Faroe Islands, a self-governing Danish territory lying between Scotland and Iceland, issue notes backed 100% by a deposit at the Danish central bank. The system originated in 1940, Denmark was occupied by the German army beginning on 9 April, prompting Britain to send forces to the Faroe Islands on 11 April to prevent German occupation. The Danish krone was Danish kroner notes in circulation were replaced by Faroe Islands kroner, which were linked to sterling at a rate of 22.40 Faroese kroner per £1. Initially Danish notes in the islands were simply over stamped. The sterling backing was provided by the British government and was held on deposit at a British bank (Danmarks Nationalbank 1949: 21-22; West 1972: 180). We count the currency board episode as ending in 1949 when the Faroe Islands rejoined the Danish monetary system because the monetary base now included deposits at the Danish central bank, which were not supplied in a currency board-like manner.

Legislation

- Faroe Islands, “Midlertidige Bestemmelser vedrørende Færøernes Pengevæsen,” 31 May 1940: Overstamped Danish notes to create a separate Faroese note issue. (This and other legislation cited is in the Faroe Islands gazette.)
- Faroe Islands, “Midlertidige Bestemmelser for Færøerne om Seddeludstedelse,” 14 October 1940: Printed new notes on behalf of Danmarks Nationalbank (the Danish central bank) and established an exchange rate of 22.40 Faroese krónur = £1 sterling.
- Faroe Islands, “Midlertidige Bestemmelser for Færøerne om Seddeloms løb, Valutaforhold og Handel med Udlandet m. v.,” 18 December 1940: Wartime foreign exchange and trade regulations.
- Faroe Islands and United Kingdom, “Agreement between His Britannic Majesty's Government and the Administration of the Faroe Islands, for Regulating the Financial Relations between the United Kingdom and the Faroe Islands,” 27 March 1941: Incorporated the Faroe Islands into the sterling area and established a committee of three members to supervise British-Faroese financial relations until the end of World War II.
- Faroe Islands, “Bekendtgørelse om Ændring af Kundgørelse Nr. 48 af 18. December 1940 om Seddelomløb, Valutaforhold og Handel med Udlandet m. v.,” 27 March 1941: Reorganized the directorship of the Currency Board according to the agreement with the United Kingdom, to include one representative of the United Kingdom, one of the Faroe Islands executive branch, and one of the Faroe Islands legislature.
- Faroe Islands, Law No. 248, 12 April 1949: Rejoined the Faroe Islands to the Danish monetary system by establishing an exchange rate of 1 Faroese króna = 1 Danish krone.

Exchange rate and currency system

- 31 May 1940-13 October 1940 (pre-currency board period): Likely 22.40 (locally over stamped) Danish kroner = £1. The prewar exchange rate had been 22.40 Danish kroner = £1 sterling, and we believe it continued in effect, although applying only to the over stamped Faroese note issue and to local bank accounts, and not available for unstamped Danish notes or for Danish bank accounts. During this period the note issue was not a currency board because there was no foreign asset backing.
- 14 October 1940-11 April 1949: 22.40 Faroese krónur = £1 sterling.
- 12 April 1949-present (post-currency board period): 1 Faroese króna = 1 Danish krone.

We do not know what the minimum size of an exchange was or what commission fee, if any, was charged for exchanges.

The Faroese krone (plural kroner) is a decimal currency, divided into 100 oyru (the Faroese version of the Danish øre). The Faroe Islands issued notes of 5 to 500 kroner from 1940-1949. They use Danish coins, although during World War II the British government had a special issue of coins from 1 to 25 øre minted to supplement the supply of coins from the Danish mainland, which was blocked by German occupation.

Financial year; sources of data

The financial year is the calendar year.

The Faroe Islands gazette (*Færøernes kundgørelsessamling*) does not seem to contain any information on the currency board, nor does the board seem to have published any separate reports. The most likely sources of information are the National Archives of the Faroe Islands or the British National Archives, neither of which we have searched.

The International Monetary Fund's *International Financial Statistics* database does not cover the Faroe Islands separately from Denmark.

Remarks on the balance sheet

The Faroe Islands gazette (*Færøernes kundgørelsessamling*) does not seem to contain any information.

Remarks on the income and expenditure statement

The Faroe Islands gazette (*Færøernes kundgørelsessamling*) does not seem to contain any information.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Apparently none.

Other remarks

Our reading knowledge of Danish is poor.

1948: The Faroe Islands rejoined the Danish monetary area in November. We gather that they rejoined for exchange control purposes and our guess is that the currency board system did not end at this point (Danmarks Nationalbank 1949: 21-22; West 1972: 180). We place its end as 12 April 1949 because of the Faroese monetary law of that date.

Well after the currency board period there was a banking crisis in 1992-1993 (Abildgren 2010: 179-181).

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Abildgren, Kim. 2010. *Monetary History of Denmark 1990-2005*. (Volume of a series; the other volumes are only in Danish.) Copenhagen: Danmarks Nationalbank. http://www.nationalbanken.dk/en/publications/Documents/2010/12/Monetary_History_Denmark_web.pdf viewed 19 May 2014.

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Spreadsheets

None, because apparently no data were published.

Fiji

Name, headquarters, dates, membership

Fiji Board of Commissioners of Currency, headquarters Suva, Fiji, 4 December 1914 to 30 June 1973. The board began business on 4 December 1914 (Reserve Bank of Fiji 1995: 7-8). The apparent reason for establishing the board was to capture seigniorage for the government [we need to see whether Narsey's work discusses this point]. Previously, two privately owned commercial banks, the Bank of New Zealand and the Bank of New South Wales, issued notes. During World War I, they continued to issue notes alongside the Board of Commissioners of Currency because notes were printed abroad, and wartime conditions made it difficult to import new notes (Fiji annual report 1914: 7; 1918: 3). Apparently the banks withdrew their notes from circulation by the end of 1922, because the colonial annual report on Fiji mentions them in 1921 but ceases doing so in 1922 (Fiji annual report 1921: 15; 1922: 22). The Central Monetary Authority of Fiji (now the Reserve Bank of Fiji), opened on 1 July 1973 to replace the currency board. The rationale for establishing a central bank was that greater independence in monetary policy was more consistent with Fiji's recently political independence from the United Kingdom (Reserve Bank of Fiji 1995: 13).

Legislation

- Fiji, Government Currency Notes Ordinance, No. 30, 18 November 1913: Established the Board of Commissioners of Currency.
- Fiji, Government Currency Notes Amendment Ordinance, No. 2, 14 February 1917: Allowed the currency board to invest in wartime loan to the government of Fiji (apparently securities).
- Fiji, Government Currency Notes Amendment Ordinance, No. 19, 20 December 1918: Allowed the British Secretary of State for the Colonies to approve reducing the coin reserve to as low as one-half of the notes in circulation, as opposed to one-half before (the rest of the reserve being held as securities).
- Fiji, Government Currency Notes Amendment Ordinance, No. 23, 19 November 1920: Allowed the Commissioners of Currency to pay notes in silver coins permitted by the British Secretary of State for the Colonies.
- Fiji, Ordinance No. 9 of 1921: Allowed the British Secretary of State for the Colonies to approve reducing the coin reserve to as low as one-fifth of the notes in circulation, as opposed to one-quarter before (the rest of the reserve being held as securities).
- Fiji, Government Currency Notes Amendment Ordinance, No. 1, 1 June 1922: Allowed the government to suspend the convertibility of currency board notes into gold from time to time or to pay the notes in silver (such as British silver coins).
- Fiji, Currency Notes (Amendment) Ordinance, No. 42, 13 December 1932: The currency board was allowed to issue notes against drafts on New Zealand currency for a temporary period of six months.
- Fiji, Currency Notes Ordinance, No. 6, assented 25 July 1933, in force 1 November 1933: Put the currency on sterling exchange basis at Fijian £111 = UK£100 and ceased reference in the law to gold or silver coins. Increased the depreciation reserve from 10% to 20%, high for a currency board.
- Fiji, Coinage Ordinance, No. 1, 29 March 1934: Made the coinage the responsibility of the Commissioners of Currency and provided for establishing a Coinage Security Fund.
- Fiji, Central Monetary Authority Act, No. 1 of 1973: Replaced the currency board with a central bank.

Exchange rate and currency system

- 4 December 1914-17? December 1929: Fijian £1 = UK£1. Fiji, Government Currency Notes Ordinance, No. 30, 18 November 1913, provided for the currency board's notes to be redeemable

in gold coin. Before the board began operations, though, World War I broke out, and the United Kingdom (Fiji's colonial power) and many other countries suspended the gold standard in August 1914. In practice, the banks exchanged Fijian pounds at Fijian £1 = UK£1.

- Retrospectively, 18? December 1929-8 September 1932: officially, the exchange rate remained Fijian £1 = UK£1, but in practice it was a clean float paralleling the Australian pound to January 1931 and then paralleling the New Zealand pound from perhaps February 1931. Both were depreciating against the pound sterling. The two commercial banks, the Bank of New Zealand and the Bank of New South Wales, managed the exchange rate, and their actions were influenced by the currency depreciations in their home countries (Knapman 1987: 109-19). The Fijian pound depreciated along with the Australian pound against the pound sterling. The New Zealand pound was also depreciating against the pound sterling in this period. Silver, which the Commissioners of Currency used to redeem their notes, was only legally exportable with a license.
- 9 September 1932-15 November 1932: Fijian £1 = UK£1. Fiji, Currency Notes Ordinance, No. 6, 1 November 1933, section 6(3) leaves the impression that the exchange rate returned to parity with the pound sterling.
- 16 November 1932-13 December 1932: Fijian £1 = £1 sterling = 7.32238 grams gold. On 21 October 1932, the British Colonial Office instructed the Board of Currency Commissioners to cease the issuance of notes against drafts in pounds sterling, which was technically illegal under Fijian law. In response to pressure from the British government to end the depreciation of the Fijian pound, the Commissioners of Currency announced that henceforth they would only issue notes in exchange for 20% gold and 80% pounds sterling, and that from 1 December 1933 they would only issue notes in exchange for gold (Board of Currency Commissioners, announcement of 15 November 1932, cited in Knapman 1987: 112).
- 14 December 1932-28? March 1933: Fijian £1 = New Zealand £1 (Fiji, Currency Notes (Amendment) Ordinance, No. 42, 13 December 1932; see also Fiji, Currency Notes Ordinance, No. 6, 1 November 1933, section 6(3), which allowed the currency board to exchange notes issued from 14-22 December 1932 to at Fijian £1 = New Zealand £1). British colonial officials and Fiji's Legislative Council overrode the decision of the Commissioners of Currency for fear of creating a shortage of notes that would hinder the record sugar harvest. Fiji temporarily linked its currency to the New Zealand pound, and the currency board was allowed to issue notes against drafts on New Zealand currency for a temporary period of six months (Knapman 1987: 113). On 20 January 1933, the New Zealand pound was devalued from New Zealand £1.11 = UK£1 to New Zealand £1.25 = £1 sterling, making the New Zealand pound again equal to the Australian pound. The Fijian pound followed.
- 29? March 1933-27 November 1967: Fijian £1.11 = £1 sterling (Fiji, resolution of 28 March 1933, cited in Knapman 1987: 116, 119; Fiji Currency Notes Ordinance, No. 6, assented 25 July 1933, in force 1 November 1933; see also Fiji annual report 1933: 53; 1936: 49-50). On instructions from the British Colonial Office, Fiji adopted the pound sterling as the anchor currency, at the cross rate with the New Zealand pound in effect before 20 January 1933. The reason for adopting the pound sterling rather than the New Zealand pound was a desire by influential interests in Fiji to avoid the risk of further devaluations of the New Zealand pound against the pound sterling. The currency board was allowed to issue notes against drafts on pounds sterling. The Fiji Currency Notes Ordinance laid to rest controversy over the exchange rate.
- 28 November 1967-12 January 1969: Fijian £1.045 = £1 sterling. Fiji revalued slightly against the pound sterling following the pound sterling's devaluation of 18 November 1967 (Fiji annual report 1967: 25).
- 13 January 1969-24 October 1972: Fijian \$2.09 = £1 sterling. Fiji introduced a decimalized currency at Fiji \$2 = Fijian £1 (Fiji annual report 1970: 28). An exchange rate of Fiji \$1 = US\$1.4832 was agreed between the United Kingdom and the IMF, but after becoming

independent and joining the IMF on its own, Fiji had not registered a par value with the IMF before the Bretton Woods system began to break apart in 1971. Fiji's new currency was named the dollar in imitation of the U.S. dollar, to whose value the new unit was closer than to that of the pound sterling. Gold convertibility for all countries ended in practice when the United States abandoned the gold standard on 15 August 1971. Foreign-exchange transactions were suspended on 23 June 1972, when the United Kingdom floated the pound sterling, and resumed on 26 June 1972 (IMF 1973: 168).

- 25 October 1972-30 June 1973: Fijian \$1.98 = £1 sterling. Fiji revalued against the pound sterling to offset the decline of the pound sterling against the U.S. dollar at the time (IMF 1973: 169).

We do not know what the minimum size of an exchange was or what commission fee was charged for exchanges.

Like the United Kingdom at the time, during its currency board period, Fiji initially used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated "s.") = 240 pence (or pennies, abbreviated "d." from the Latin *denarius*, an ancestor of the penny). In 1967 Fiji introduced legislation to decimalize the currency on 13 January 1969 at Fiji \$2 = Fiji £1, 10 cents = 1 shilling, 5/6 of 1 cent = 1 penny. The currency board's pounds-shilling pence coins were for 0.5 pence to 2 shillings (24 pence, also known as the florin), and its notes were for 10 shillings (£0.50) to £10. Its decimal coins were for 1 cent to 20 cents and its decimal notes were for 50 cents to \$20 (Fiji annual report 1967: 25; 1968: 29).

At first, Fiji used British coins. It introduced local coins in 1934 (Fiji annual report 1934: 48). The Fiji Coinage Ordinance of 1934 made the coinage the responsibility of the Commissioners of Currency and provided for establishing a Coinage Security Fund (Fiji annual report 1934: 68). Before decimalization, the currency board issued coins of 0.5 pence to 2 shillings and notes of 5 shillings to 10 pounds (Fiji annual report 1966: 22).

Financial year; sources of data

The financial year was the calendar year throughout the existence of the currency board.

We have copies of the relevant sections of all Fiji colonial annual reports published from 1913 to 1970. Colonial annual reports contained some annual data.

The *Fiji Gazette* contains monthly, semiannual, and annual financial statements of the Board of Commissioners of Currency. The monthly statements presumably begin in 1914, although we have seen no issues of the gazette before 1919. The statements change to semiannual starting June 1934. Monthly statements were as of the 10th day of the month, while semiannual statements were as of the last day of the half year. There are also annual statements in the gazette. We are missing these monthly statements: all months 1914-1918, January 1920, June 1920, April 1922, December 1922-April 1923, June 1923, November-December 1923, November 1924, all of 1925, July 1926, September-December 1926, March 1929, September 1929, January 1931, March 1931, July 1931, September 1931, November 1933-April 1934. We are missing these semiannual statements: June 1936, December 1938, December 1939, December 1943, June 1950-end of data in 1973. We are missing annual statements for 1914-1917, 1924, 1931-1941, and 1943-1973.

The International Monetary Fund's *International Financial Statistics* database has annual monetary data on Fiji starting in 1961 and monthly data starting in 1973. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

None.

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

None.

Deviations from orthodoxy

[To come.]

Other remarks

1913: At the start, the currency board was required to hold at least two-thirds of its reserves in coin, though with the approval of the British Secretary of State for the Colonies the proportion could be reduced to one-half. The currency board could also let the two-thirds ratio drop by one-quarter for up to three months without having to sell securities to restore the ratio; perhaps it was a seasonal measure (Fiji, Government Currency Notes Ordinance, No. 30, 18 November 1913)

1931: Fiji, Proclamation No. 9 of 25 February 1931, prohibited imports of silver coins in amounts greater than £2 without a license. By this time the export of gold and silver was also controlled by the government and was only legal with its permission.

1932: "The natives refuse to recognize copper coins, and in country stores threepence is usually the lowest change. The number of pennies in circulation is consequently small" (Fiji annual report 1932: 48). When Fiji introduced its own coinage in 1934 the lowest denomination was initially sixpence. It introduced a threepence piece in 1948 (Fiji annual report 1948: 26).

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Reserve Bank of Fiji. 1995. *Reserve Bank of Fiji*. <http://www.reservebank.gov.fj/docs/Reserve%20Bank%20of%20Fiji.pdf>, viewed 12 October 2011. (An anniversary commemoration.)

Spreadsheets

Under construction.

French Guiana

Name, headquarters, dates, membership

Possible case, not certain; this page is a placeholder.

Exchange rate and currency system

Financial year; sources of data

Remarks on the balance sheet

Remarks on the income and expenditure statement

Remarks on other accounts and data

Deviations from orthodoxy

Other remarks

References

Spreadsheets

Under investigation.

Gambia

Name, headquarters, dates, membership

Gambia Currency Board, headquarters Bathurst (now Banjul), Gambia, 5 October 1964 to 28 February 1971.

The Gambia Currency Board succeeded the West African Currency Board, of which Gambia had been a member along with the Gold Coast (now Ghana), Nigeria, and Sierra Leone. By the time the Gambia Currency Board began, the other members had quit the West African Currency Board. The Gambia Currency Board began issuing a distinctive national currency on 5 October 1964. October was chosen as the time to introduce a new currency because it was a seasonally a month of lowest circulation, shortly before a sharp seasonal increase began with the onset of the groundnut harvest (Gambia Central Bank annual report 1965: 3). Gambia continued to use the old West African Currency Board coins until 18 February 1965, its independence day, when it put into circulation a distinctive design of coins (Central Bank of the Gambia Web site, “Development of Currency in The Gambia”). The Central Bank of The Gambia began operations 1 March 1971 and took over all the property, assets, and liabilities of the Gambia Currency Board on that date (Central Bank of The Gambia annual report 1971-1972: 7). The rationale for establishing the central bank was that Gambia need a more modern monetary authority that, in particular, was not restrained by a high foreign reserve requirement (Central Bank of The Gambia annual report 1971-1972: 8).

Legislation

- United Kingdom, Secretary of State for the Colonies, Regulations Defining the Constitution, Duties and Powers of the West African Currency Board; United Kingdom, Secretary of State for the Colonies, Supplementary Regulations Defining the Constitution, Duties and Powers of the Gambia Currency Board, 23 March 1964; Gambia, Currency Ordinance [or perhaps Law; we have not seen this], No. 15, 13 May 1964: Established a local currency board to succeed the multiterritorial West African Currency Board, which was ending its existence.
- Gambia, Central Bank of The Gambia Act, February 1971: Replaced the currency board with a central bank.

Exchange rate and currency system

The exchange rate was Gambia £1 = £1 sterling. The Currency Board’s commission fees were 1/16% (0.0625%) buying and 3/8% (0.375%) selling (Central Bank of The Gambia annual report 1971-1972: 9).

Like the United Kingdom at the time, Gambia used the nondecimal pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). The Gambia Currency Board issued coins of 1 pence to 8 shillings (£0.40) and notes of 10 shillings to Gambia £5. Under the central bank the currency was decimalized on 1 July 1971 (Central Bank of The Gambia annual report 1971-1972: 7).

Financial year; sources of data

The financial year was the calendar year.

We have some of the annual reports of the currency board. The first annual report of the Central Bank of The Gambia contains a little bit of narrative information but no statistics on the currency board.

Higher-frequency data than the annual data we collected may exist in the government gazette, which we did not search.

The International Monetary Fund’s *International Financial Statistics* database begins coverage of the balance sheet of the monetary authority monthly from July 1970. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

None.

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

None.

Deviations from orthodoxy

The board held some domestic assets. Information on how much will come later.

Other remarks

Criticizing an aspect of the currency board, the first annual report of the Central Bank of The Gambia says, “The concept of the obligation to maintain a minimum proportion of external assets against demand liabilities of the monetary authority was abandoned in favor of a more rational requirement, embodied in the above-mentioned Section of the Act, that ‘the Bank shall use its best endeavours to maintain the External Reserve at a level adequate for international transactions of The Gambia’” (Central Bank of The Gambia annual report 1971-1972: 8).

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Central Bank of The Gambia. Web site, <http://www.cbg.gm>, viewed 6 November 2014. See especially “Development of Currency in The Gambia,” <http://www.cbg.gm/slide/dalasi.html>.

Gambia Currency Board. Annual report. 1964-1970/1971. *Report for the Year Ended 31st December, 1965* (1965); *Report for the Year / Rapport pour l’année ...* (1966-1967); *Report for the Year* (1968). Bathurst: Gambia Currency Board. [We are missing the first report, from 1964; 1965-68 reports are missing most pages; we lack 1969 and 1970 reports; 1971 is probably combined with 1970 if it exists since the board only lasted 2 months into 1971.]

Spreadsheets

Data need to be obtained.

Gibraltar

Name, headquarters, dates, membership

Commissioner of Currency, headquarters Gibraltar, August 1914 to present. Gibraltar established a currency board as an emergency measure just after World War I began to alleviate a bank run (Gibraltar annual report 1914: 15). The episode continues today.

Legislation

- Gibraltar, Bank Note Ordinance, No. 10, 5 August 1914: Established a government note issue of up to £250,000. The ordinance did not specify backing for the note issue, and exchange rate parity with the pound sterling was implicit rather than explicit. From the 1927 ordinance below it is evident that the government created a Note Security Fund, giving us reason to think that the system was a currency board from the start.
- Gibraltar, Currency Notes Ordinance, No. 1, 24 February 1927: Specified the pound sterling as the anchor currency and a Note Security Fund equal to 100% of notes in circulation, to absorb the existing Note Security Fund
- Gibraltar, Currency Notes Rules, 18 July 1939: Added details about the handling of currency notes.
- Gibraltar, Currency Notes Act, No. 2011-03, 10 February 2011: Allowed up to 30% of the assets in the Note Security Fund to be invested in securities issued or guaranteed by the government of Gibraltar.

Exchange rate and currency system

The exchange rate has always been Gibraltar £1 = £1 sterling. Technically, Gibraltar does not have a separate currency from the United Kingdom, but the authority to issue local currency (Gibraltar Treasury Department, Currency Notes Section 2011; compare also Gibraltar annual report 1914: 6, which says, “The currency is that of the United Kingdom. Since the Bank Note Ordinance, 1914, which was enacted on the 5th August, the currency includes bank notes issued by the Government of Gibraltar”). Notes issued since 1995 have the words “pounds sterling” printed on them.

Under the Currency Notes Act 2011, section 6, the Commissioner of Currency may charge a commission fee of up to 1% for exchanges of pounds sterling for Gibraltar pounds or the reverse. In practice, no fee seems to be charged. Tourists find that British notes and coins are accepted at par with Gibraltar currency for retail transactions. Gibraltar currency is not legal tender in the United Kingdom and is generally not accepted there.

Like the United Kingdom at the time, Gibraltar used the nondecimal pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). Gibraltar decimalized with the United Kingdom on 15 February 1971, dividing the pound into 100 new pence and eliminating the shilling as a unit of account (implied by Gibraltar Treasury Department, Currency Notes Section 2011, which states that British legislation on decimalization applied to Gibraltar by proclamation).

The Bank Note Ordinance, No. 10, 5 August 1914, authorized notes of 2 shillings to £50, redeemable at par (that is, one-to-one with the pound sterling) at such time as the governor declared by proclamation. The notes were a charge on the asset and revenue of the colony. British currency was also legal tender. The government issued notes as a World War I emergency measure in case there was a run on the Anglo-Egyptian Bank’s branch in Gibraltar or on the Government Savings Bank (Gibraltar Treasury Department, Currency Notes Section 2011). The smaller denominations provided substitutes for coins, which could not easily be imported because of wartime dangers to shipping.

“Under the provisions of an Order in Council of the 9th August, 1898, British currency is the legal tender of the Colony, but Spanish currency circulates freely and a good portion of local supplies of foodstuffs and other commodities are paid for in the latter” (Gibraltar annual report 1918: 3). The 1921

colonial annual report remarked, “Many merchants and traders keep their accounts in pesetas and centimos and dollars and cents” (Gibraltar annual report 1921: 6). Spanish currency ceased to be widely used during the Spanish Civil War, when it depreciated substantially.

Gibraltar used British coins and had no local coinage until 1988. Local coinage is a liability of the Commissioner of Currency. During its existence, the Commissioner of Currency has issued coins of 1 new pence to £2 and notes of 2 shillings (£0.10) to £100.

Financial year; sources of data

The financial year has been the calendar year since during the whole existence of the government note issue and currency board.

We have copies of the relevant sections of all Gibraltar colonial annual reports published from 1914 to 1963. Colonial annual reports contained some annual data. We have only examined scattered issues of the government gazette. The government does not publish good online information about currency issue.

Higher-frequency data than the annual data we collected may exist in the government gazette, which we have only searched in part.

The International Monetary Fund’s *International Financial Statistics* database does not cover Gibraltar.

Remarks on the balance sheet

None.

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

None.

Deviations from orthodoxy

The Currency Notes Act 2011, section 8(3)(a), allows up to 30% of the assets in the Note Security Fund to be invested in securities issued or guaranteed by the government of Gibraltar. Data on the share actually held in such securities will come later, when we have more information.

Other remarks

1914: In early August, after World War I began, Spain embargoed the export of food. Prices rose in the Gibraltar market, and there were large withdrawals of deposits from the Government Savings Bank and from the Savings Bank division of the Anglo-Egyptian Bank. The government enacted the Bank Note Ordinance and began issuing currency notes from 2 shillings to £50. Public confidence in the banks returned. The value of notes issued to the Anglo-Egyptian Bank in 1914 was £153,900, of which £59,100 were returned for cancellation by December 31. The government made arrangements to procure food from Portugal and other sources (Gibraltar annual report 1914: 15).

1915: The British Secretary of State for the Colonies formally approved Gibraltar’s 1914 issue of notes in Despatch No. 108 of 21 October 1915 (Gibraltar Treasury Department, Currency Notes Section 2011).

1920: The colonial annual report lists a Note Security Fund among the government’s assets for the first time (Gibraltar annual report 1920: 5). The fund may have existed since the start of government note issue in 1914, though.

1928: A new Currency Notes Ordinance, No. 1 of 1927, came into operation on 1 October 1928. It provided for a new issue of notes, which began entering circulation in November. The new issue excluded notes below 10 shillings (Gibraltar annual report 1927: 6, 7). At the time, 10 shillings was the

smallest denomination circulating in the United Kingdom. The note circulation fell as coins replaced the smallest denominations of notes.

1939?: During World War II, circulation of British notes was banned (Gibraltar annual report 1947: 17). The motive was apparently to reduce the risk of Axis forces obtaining currency they might be able to spend in the United Kingdom.

1953: The colonial annual report lists bank rates for transfers. Telegraphic transfers are charged the cost of the telegram plus $\frac{3}{8}\%$ (0.375%) of the value of the sum transferred. Mail transfers are the cost of postage plus $\frac{1}{4}\%$ (0.25%). Demand drafts are 8 pence for the first 5 pounds, 1 shilling for 5-10 pounds, 1 shilling 6 pence for 10-30 pounds, and $\frac{1}{4}\%$ (0.25%) for over 30 pounds (Gibraltar annual report 1952 & 1953: 21).

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Spreadsheets

Under construction.

Guernsey

Name, headquarters, dates, membership

Bailiwick of Guernsey, Treasury and Resources Department, Saint Peter Port, Guernsey, start date uncertain but before 1999 to the present.

Legislation

- Guernsey, Ordinance of the Royal Court of Guernsey, 1914: Accompanied the act just below (cited in Adler 1937: 342; see also p. 343).
- Guernsey, Act of the States of Guernsey, 1914: Provided for a government monopoly of currency (cited in Adler 1937: 342; see also p. 343).
- Guernsey, Ordonnance relative au changement du Cours Légal de la Monnaie en cette Île, et les Île de Sercq, d'Herm et de Jethou (Currency and Legal Tender Ordinance), 1921: Granted legal tender status to the pound sterling and linked the exchange rate at one-to-one with the Guernsey pound, to avoid the depreciation that the French franc, widely used in Guernsey, was then experiencing.
- During World War II, Guernsey was invaded by German forces on 30 June 1940. The Germans issued an occupation currency (Lamine 2006: 70). It never managed to achieve greater popularity than the currency of the Guernsey government (Bányai 1970: 42).
- After German occupation ended on 9 May 1945, the prewar monetary system of a link to the pound sterling resumed.
- Guernsey, Currency and Legal Tender Ordinance, 1954: Only Bank of England and Guernsey currency had legal tender status.
- To our knowledge there is no explicit legislation establishing currency board principles for the external reserves backing the currency. The principle of holding 100% external reserves against note and coins in circulation began sometime before 1999, the earliest data online.

Exchange rate and currency system

The exchange rate is Guernsey £1 = £1 sterling.

There is no exchange commission and apparently no minimum size for exchanges.

Until 1956 locally issued coins were denominated in “doubles,” the denominations issued being 1, 2, 4, and 8 doubles (8 doubles were equal to 1 old pence). British coins were widely used. Like the United Kingdom at the time, Guernsey also used the nondecimal pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). Guernsey decimalized along with the United Kingdom on 15 February 1971, such that the Guernsey £1 = 100 pence. During German occupation in World War II the government issued notes for as little as 6 shillings because coins became scarce.

The Treasury and Resources Department issues or has issued decimal coins of 0.5 pence to £2 and notes of £5 to £50.

Financial year; sources of data

The financial year is the calendar year.

The source of data is the Guernsey Treasury and Resources Department’s annual *Accounts of the States*.

Apparently no high-frequency data are published.

The International Monetary Fund’s *International Financial Statistics* database does not cover Guernsey.

Remarks on the balance sheet

The Guernsey Treasury and Resources Department's annual *Accounts of the States* lists notes in circulation, coins in circulation, and the amount of the Notes and Coins Reserve (backing for currency in circulation). It offers no further detail, such as detail on the assets comprising the Notes and Coins reserve.

Remarks on the income and expenditure statement

The Guernsey Treasury and Resources Department's *Accounts of the States* shows annual figures for the surplus (net income) of the Notes and Coins Account. It offers no further detail, such as detail on gross income and expenditures.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Dixon (2014) observes that the system seems unorthodox based on reserve pass-through figures that may, however, be misleading.

Other remarks

Brandon Dixon and Kotaro Mitsuhashi digitized the balance sheet data for a working paper by Dixon. Some of our narrative also comes from Dixon's paper.

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Spreadsheets

Annual data under construction; no high-frequency data.

Hong Kong

Name, headquarters, dates

- 6 December 1935 to 25 December 1941: Exchange Fund, headquarters Hong Kong. The Exchange Fund was established on 6 December 1935 as a response to China's abandonment of the silver standard and de facto adoption of the pound sterling as its anchor currency in early November 1935. (Hong Kong prohibited the export of silver in response.) China was Hong Kong's largest trading partner. The Exchange Fund began issuing Certificates of Indebtedness, allowing the note-issuing banks to in effect act as its agents, in December 1935, as seen from the appearance of Certificates of Indebtedness on the balance sheet as of 31 December 1935 (Hong Kong administrative report 1935: A19). Before the Exchange Fund was established, banks had been required to hold certain reserves against their notes in circulation (see, for instance, Notices Nos. S389 and S390, Hong Kong gazette, 6 December 1935: 2005).
- 26 December 1941 to 13 September 1945: Japanese occupation of Hong Kong during World War II. In practice, the Exchange Fund was dormant during the period. Its currency was hoarded as a store of value in Hong Kong and nearby China, but the Exchange Fund did not issue or redeem currency. The Japanese occupation authorities issued their own currency, not based on currency board principles.
- 14 September 1945 to 31 March 1993: Exchange Fund, headquarters Hong Kong. (*Not a currency board during the period 6 July 1972 to 16 October 1983.* We list financial statements for that period even so.) Hong Kong returned to the currency board system after Japanese wartime occupation ended. It abandoned the currency board system, without government officials really being aware of what they were doing, in 1972 during the currency turmoil involved with the breakup of the Bretton Woods system of pegged exchange rates and problems with the pound sterling. Hong Kong again returned to the currency board system in 1983 to stabilize the Hong Kong dollar during a currency crisis related to Anglo-Chinese negotiations over the future of Hong Kong, then a British colony but with most territory scheduled to revert to China in 1997.
- 1 April 1993 to present: Hong Kong Monetary Authority (HKMA), headquarters Hong Kong. The HKMA incorporated the Exchange Fund and the Office of the Commissioner of Banking (HKMA annual report 1993: 11). The Exchange Fund is now an account within the HKMA rather than a separate organization. See the remarks below on the HKMA's deviations from orthodoxy. The episode continues today.

Legislation

- Hong Kong, Currency Ordinance (also known as the Exchange Fund Ordinance), No. 54, 6 December 1935, No. 54 of 1935: Established the Exchange Fund, ended the silver standard, and required banks and the public to surrender their silver coin and silver bullion to the government.
- Hong Kong, Currency Amendment Ordinance, 1936: Clarified two small points Ordinance, 1935 regarding certificates of indebtedness and expenses charged to the Exchange Fund.
- Japanese military administration, proclamations and actions from 26 December 1941: In effect ended the currency board system.
- British Military Administration, Hong Kong, British Military Administration Proclamation, No. 1, 1 September 1945: Restored laws in effect before Japanese occupation, including currency laws.
- Hong Kong, administrative decision of 6 July 1972: In effect inadvertently abandoned the currency board system by ceasing to require note-issuing banks to pay foreign assets to the Exchange Fund to receive Certificates of Indebtedness.
- Hong Kong, administrative decision of 1976: Made the Exchange Fund the issuer of coins as well as notes.

- Hong Kong, Monetary Affairs Branch, “Government Measures to Stabilize the Exchange Rate: Explanatory Note,” 15 October 1983: Returned to the currency board system.
- Hong Kong, Secretary for Monetary Affairs Office, “New Accounting Arrangements Between the Exchange Fund and the Hongkong and Shanghai Banking Corporation,” 15 July 1988: Eliminated certain features of monetary arrangements that gave unusual influence to the Hongkong and Shanghai Banking Corporation.
- Hong Kong, Exchange Fund (Amendment) Ordinance, No. 82 of 1992: Established the Hong Kong Monetary Authority, which combined the Exchange Fund’s currency issue with financial regulation and management of government funds.

Exchange rate and currency system

The relevant exchange rates have been as follows:

- 6 December 1935 to 25 December 1941: Hong Kong \$16 = £1 sterling (see also the “Other remarks” section below).
 - Initially the Exchange Fund maintained a spread of 14-13/16 to 15 British pence = HK\$1 (Hong Kong \$16.00-approximately 16.20 = £1). (The Hong Kong 1935 annual report, p. 36, says however, “since the Exchange fund began operating in December, the [market exchange rate] has been consistently between 1/3-3/8 and 1s./3-7/8d.”) The government did not publicly commit itself to a particular exchange rate. On 11 September 1939 the Exchange Fund made official the exchange rate link with sterling. It offered to sell Certificates of Indebtedness to note-issuing banks in unlimited amounts at 15 pence (HK\$16 = £1) and to repurchase them at 14-13/16 pence. (HK\$16.20 = £1). Note-issuing banks agreed to do business with other banks at a spread of 1/32d. (3.33 Hong Kong cents per £1) around the Exchange Fund’s rates; the public faced a still wider spread of 1/32 pence, buying Hong dollars at 15-1/16 pence (about HK\$15.93 = £1) and selling at 14-3/4 pence (about HK\$16.27 = £1) (Hong Kong annual report 1939: A3). (The Exchange Fund has never done business with the public.) At a later time not specified by the sources we consulted, the Exchange Fund increased its rate for buying Hong Kong dollars to 14-7/8 pence (about HK\$16.13 = £1), and in the late 1960s it increased the buying rate to 15 pence, eliminating the spread on Certificates of Indebtedness for note-issuing banks (Stammer 1968: 61, Latter 2007: 142 n. 28). Spreads in the interbank and retail markets narrowed in step with the spreads maintained by the Exchange Fund. There has not since been any exchange spread charged to banks.
- 26 December 1941 to 13 September 1945: Period of Japanese occupation, during which the former exchange rate was in practice suspended and Hong Kong notes were not readily convertible into pounds sterling.
- 14 September 1945 to 22 November 1967: Hong Kong \$16 = £1 sterling.
- 23 November 1967 to 5 July 1972: Hong Kong \$14.5545 = £1 sterling.
- 6 July 1972 to 13 February 1973: Hong Kong \$5.65 = US\$1. (Not a currency board during this period.)
- 14 February 1973 to 24 November 1974: Hong Kong \$5.085 = US\$1. (Not a currency board during this period.)
- 25 November 1974 to 16 October 1983: floating. (Not a currency board during this period.)
- 17 October 1983 to present (2010): Hong Kong \$7.80 = US\$1.
 - On 24 January 1994 the note-issuing banks, after consultation with the Exchange Fund, agreed to cease charging handling fees for exchanging Hong Kong dollar notes among themselves, with other licensed banks, or with customers depositing large amount of notes (HKMA annual report 1993: 46; 1994: 60).
 - On 16 November 1998 the HKMA announced steps to move the exchange rate under the Convertibility Undertaking in respect of the Aggregate Balance from Hong Kong \$7.75

to \$7.80 per U.S. dollar, thus eliminating any spread between the interbank market and bank dealings with the HKMA for U.S. dollars (HKMA annual report 1998: 127). The exchange rate moved by one “pip” (Hong Kong \$0.0001) per day for 500 days starting on 1 April 1999 (HKMA annual report 1999: 41). On 12 August 2000 the rate reached 7.80 (HKMA annual report 2000: 44). These measures removed the last vestiges of spreads that had existed since 1935 and that had not seemed to cause any trouble in the first period of the currency board system, but that did create some minor problems during the second, post-1983 period (Greenwood 2008: 260-261, 280-283).

- On 18 May 2005 the HKMA established a band for the Hong Kong dollar, consisting of a “strong-side” rate of Hong Kong \$7.75 per U.S. dollar and a “weak-side” rate moved from its initial value of Hong Kong \$7.80 per U.S. dollar to a final value of \$7.85 on 20 June, moving in phases of 100 “pips” per week starting on 23 May. The HKMA wished to reduce market expectations of an appreciation of the Hong Kong dollar (HKMA annual report 2005: 48). The HKMA has never charged a commission fee to banks.

The Hong Kong dollar is a decimal currency, divided into 100 cents.

Three banks issue notes for Hong Kong \$20 to Hong Kong \$1,000 as, in effect, agents for the HKMA, although the notes have distinctive designs for each bank (see the “Other remarks” section below). Previously they issued notes for Hong Kong \$5 and \$10. Banks ceased issuing \$5 notes in 1975, when a coin replaced them, and the HKMA rather than banks now issues Hong Kong \$10 notes. The HKMA issues coins for 10 Hong Kong cents to Hong Kong \$10. It formerly also issued a coin for 5 Hong Kong cents. Coins for 1 Hong Kong cent ceased being minted before Hong Kong adopted the currency board system. The government issued notes of 1, 5, and 10 cents and \$1, which were not part of the currency board system until 1976, when the government transferred liability for them to the Exchange Fund.

Financial year; sources of data

The financial year for the Exchange Fund and the Hong Kong Monetary Authority has been the calendar year, January 1 to December 31.

Before World War II the Exchange Fund released semiannual statements. It ceased with the December 1940 statement and after that released little data during the rest of its existence as a separate organization, to 1993. (Data on the Note Security Fund and Note Issue Account, for instance in the Hong Kong annual report 1935: A15, are for Hong Kong \$1 notes, which in effect were small change; they do not concern the Exchange Fund.) For the only statements we have come across, see Hong Kong annual report 1937: 36, A3 which says that as of 30 June 1937, the Exchange Fund had certificates of indebtedness equal to Hong Kong \$152,652,579, equal to £9,342,020 at the middle market rate of 14-11/16 pence, and assets of £10,316,240. Detailed data may be available in archives, but they have never been published. Nugée and others (1995: 15-16) contains retrospective summary information. We used the information for data from 1936 to 1991. The annual reports of the HKMA since 1993, its first year, are available on its Web site. The 1993 report (page 59) shows data back to 1987 for the Exchange Fund. We used it for data starting with 1992.

The HKMA publishes certain daily and monthly data that are available on its Web site. The Exchange Fund began publishing semiannual data starting from June 1995. In 1995 it also began publishing quarterly data on its foreign currency assets, including back data to December 1993 (HKMA annual report 1995: 52). Monthly balance sheet data begin in January 1999 (HKMA annual report 1999: 131). On 21 May 2001 the HKMA announced that it would immediately begin providing daily information on its currency board operations (HKMA annual report 2001: 113). The International Monetary Fund’s *International Financial Statistics* database shows annual data for the HKMA starting in 1990, semiannual data starting in 1995, and monthly data starting in 1997.

Starting with 1991, the International Monetary Fund’s *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the

monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

As mentioned above, the Exchange Fund released no financial statements during its existence, so we have no detailed data, only the retrospective summary data shown in Nugée and others (1995: 15-16).

The HKMA defines the monetary base as Certificates of Indebtedness plus government-issued notes and coins in circulation, the aggregate balance of the banking system with the HKMA, and, since September 1998, Exchange Fund Bills and Notes (securities issued by the HKMA) (see, for example, HKMA annual report 1998: 76, 2010: 45).

1946-1948: Net assets were negative because the Exchange fund accepted liability for the World War II “duress issues,” described below.

1973-1976: Net assets were negative because the appreciation of the Hong Kong dollar reduced the Hong Kong dollar value of foreign assets.

1976: The government transferred liability for coins and the corresponding assets to the Exchange Fund. The government also transferred most of the foreign currency assets in its General Revenue Account to the Exchange Fund (HKMA annual report 1999: 85).

1978: The Exchange Fund absorbed the Coinage Security Fund for HK\$1 notes on 31 December 1978 (HKMA Web site, <http://www.hkma.gov.hk/eng/key-functions/exchange-fund/history.shtml>, viewed 14 May 2014).

1982: Nugée and others (1995: 16) report, apparently erroneously, that total liabilities (excluding net worth) were HK\$31,799 million in 1982; in fact, the sum of the component liabilities is only HK\$31,759 million.

1995: The format of the balance sheet changed, dividing assets by type of investment rather than by currency. The division by currency continued to be shown, in the notes to the balance sheet. There were also some changes to accounting practices (HKMA annual report 1995: 67, 69-70). The 1995 annual report also shows the balance sheet according to the new format for 1994, for comparison. The spreadsheet shows the old and new formats for 1994.

1997: The financial statements start to include Group accounts. Group accounts include subsidiary companies, such as a note printing company, as well as the Exchange Fund; Fund accounts include only the Exchange Fund (HKMA annual report 1997: “The Exchange Fund” chapter, “Notes to the Accounts” section).

1998: From 1 October 1998, certain assets were designated to back the monetary base (HKMA annual report 1998: 94).

2000: The balance sheet changed its format. Among the changes was that the HKMA ceased publishing Group accounts because they differed little from Exchange Fund accounts (HKMA annual report 2000: 83). The spreadsheet shows the old and new formats for 1999.

2001: The notes to the financial statement henceforth contain some reports by “segment” (activity); “currency board operations” is one of the segments. We have not listed the details of currency board operations segment, except memo items on the monetary base and assets specifically reserved as backing for it, because in practice all of the resources of the Exchange Fund are available for monetary policy operations if the Hong Kong Monetary Authority so decides.

2004: Results for this year are shown as restated in the 2005 annual report, not as they originally appeared in the 2004 annual report. One change is that derivatives were taken from off the balance sheet to on it (HKMA annual report 2005: 99).

2005: Results for Group in this year are shown as restated in the 2006 annual report, not as they originally appeared in the 2004 annual report. There was no restatement of results for the Fund (HKMA annual report 2006: 115). This was also the first year that foreign liabilities are stated in the notes to the financial statements (HKMA annual report 2005: 161), although it is likely that the HKMA had foreign liabilities in the previous decade. The report lists results for 2004 for comparison.

2009: Results for this year are shown as restated in the 2010 annual report, not as they originally appeared in the 2009 annual report (HKMA annual report 2010: 122). Changes were minor.

Remarks on the income and expenditure statement

1936-1991: No published data are available on the income and expenditures of the Exchange Fund during its existence as a separate entity. The annual reports of the Hong Kong Monetary Authority do contain data on income and expenditures.

1992: The Hong Kong Monetary Authority began operations on April 1, and the income and expenditure statement only covers the period April-December.

1997: The financial statements start to include Group accounts. Group accounts include subsidiary companies as well as the Exchange Fund; Fund accounts include only the Exchange Fund (HKMA annual report 1997: “The Exchange Fund” chapter, “Notes to the Accounts” section).

2000: The income and expenditure statement changed its format. Among the changes was that the HKMA ceased publishing Group accounts because they differed little from Exchange Fund accounts (HKMA annual report 2000: 83). The spreadsheet shows the old and new formats for 1999.

2001: The notes to the financial statement henceforth contain some reports by “segment” (activity); “currency board operations” is one of the segments. We have not listed the details of currency board operations segment.

2004: Publication of Group accounts resumes, with information going back to 2003. Also, from this year onward the financial statements show expenditures with a negative sign. We continue to show them without a negative sign (HKMA annual report 2004: 95). Results for this year are shown as restated in the 2005 annual report, not as they originally appeared in the 2004 annual report (HKMA annual report 2005: 98).

2005: Results for Group in this year are shown as restated in the 2006 annual report, not as they originally appeared in the 2004 annual report. There was no restatement of results for the Fund (HKMA annual report 2006: 114).

Remarks on other accounts and data

The HKMA’s Web site has a variety of economic and financial data.

Deviations from orthodoxy

1967: Did the HKMA guarantee some deposits? We need to recheck Schenk’s account.

1972-1983: From 6 July 1972 to 16 October 1983 the Exchange Fund was not a currency board. From 6 July 1972-24 November 1974 the Exchange Fund maintained a rigid exchange rate with a new anchor currency, the U.S. dollar, but the Exchange Fund accepted domestic assets as a basis for note issues. From 25 November 1974 to 16 October 1983 the exchange rate floated and the Exchange Fund continued to accept domestic assets as a basis for note issues. On 17 October 1983 the Exchange Fund returned to a currency board basis.

1976: Starting in this year the Exchange Fund began to include the accumulated surpluses of the government budget, listed in the balance sheet as the Fiscal Reserves Account(s).

1988: On 18 July 1988 the government of Hong Kong undertook measures that gave the Exchange Fund some properties of a central bank. The Hongkong and Shanghai Banking Corporation ceased to have free use of the net clearinghouse balances of other banks. The Exchange Fund gained much more freedom to intervene rapidly to alter the exchange rate without waiting for private sector arbitrage to do so (Greenwood 2008: 227-247).

1990: In March, the Exchange Fund began issuing securities, called Exchange Fund Bills, “to facilitate monetary management in Hong Kong” (HKMA annual report 1992: 49).

1992: In June, the HKMA established a Liquidity Adjustment Facility, “Hong Kong’s version of a discount window” (HKMA annual report 1992: 44).

1995: The HKMA intervened in financial markets on 13 January when the Hong Kong dollar came under selling pressure in the wake of the Mexican peso’s crisis (HKMA annual report 1995: 60).

1995, 1996: The HKMA established bilateral repurchase agreements with other monetary authorities in Asia (HKMA annual report 1996: “Monetary Stability” chapter). Such agreements still exist today (2011).

1997: In October, during the East Asian financial crisis, the Hong Kong dollar experienced a speculative attack after Taiwan floated the New Taiwan dollar. The HKMA passively sold U.S. dollars on 21 and 22 October. The settlement of these deals would involve the HKMA debiting the clearing accounts of those banks selling the Hong Kong dollars to it. To discourage the use of its Liquidity Adjustment Facility to fund short Hong Kong dollar positions, the HKMA issued a circular on the morning of 23 October reminding banks to organize their Hong Kong dollar funding prudently and not be overly dependent upon the HKMA for last resort liquidity support. The circular also warned them that the HKMA might impose penal interest rates for repeat borrowers. A shortage of interbank liquidity and banks’ reluctance to borrow from the HKMA after the circular pushed the Hong Kong Interbank Offered Rate (HIBOR) as high as 280% a year. The Hong Kong dollar rebounded sharply from 7.75 per U.S. dollar in the morning to 7.6 at noon. HIBOR eased to around 100% by close of 23 October and quickly dropped to around 5% the next day (HKMA annual report 1997: “Monetary Stability” chapter).

1998: The Hong Kong dollar experienced speculative attacks in January, June, and August, as the East Asian financial crisis continued. In August the government used the HKMA to buy local stocks (equities) and stock market futures. On 5 September the HKMA announced a package of seven technical measures aimed at strengthening the exchange rate link to the U.S. dollar and discouraging speculative attacks. Among the measures was a revision of discount rate policy (HKMA annual report 1998: 35-36, 38, 126).

2005: On 18 May the HKMA made changes known as the “three refinements” to the exchange rate. It established a band for the Hong Kong dollar, consisting of a “strong-side” rate of Hong Kong \$7.75 per U.S. dollar and a “weak-side” rate moved from its initial value of Hong Kong \$7.80 per U.S. dollar to a final value of \$7.85 on 20 June, moving in phases of 100 “pips” per week starting on 23 May. The HKMA wished to reduce market expectations of an appreciation of the Hong Kong dollar. The HKMA operated within the band, that is to say in a discretionary fashion, on 25 May 2005, selling Hong Kong \$554 million to banks on that date, catering to increased liquidity demand arising from a number of equity initial public offerings (HKMA annual report 2005: 48-49; 2007: 53n.).

2007: On 23 October the HKMA operated within the exchange rate band, that is to say in a discretionary fashion, for the second time since introducing the “three refinements” in 2005 (HKMA annual report 2007: 53).

2008: The HKMA undertook discretionary measures within the 1% band to provide liquidity after the failure of the U.S. investment bank Lehman Brothers led to panic in world financial markets. It intervened once on 18 September, 25 September and 23 October, and twice on 27 October. Secondly, the HKMA introduced five temporary measures on 30 September, effective 2 October, to provide individual banks in need with collateralized liquidity. On 6 November the HKMA extended the maximum tenor for collateralized lending from one month to three months and introduced scope for lending at a rate lower than the interbank interest rate (HKMA annual report 2008: 53-54, 194).

2008: On 14 October 2008 the government announced a 100% deposit guarantee, backed by the assets of the Exchange Fund (HKMA annual report 2008: 172). [Was there limited a deposit guarantee before? Insert details if so. HKMA supported the 2008 deposit guarantee with a line of credit.]

2009: The temporary liquidity measures the HKMA introduced in late 2008 expired at the end of March 2009. The HKMA announced on 26 March 2009 that it would incorporate foreign exchange swaps and term repurchase agreements (repos) into its framework for market operations after the temporary measures expired (HKMA annual report 2009: 46).

2010: The 100% deposit guarantee established in 2008 expired at the end of the year, replaced with a guarantee up to HK\$500,000, compared with a limit of HK\$100,000 before the 100% guarantee had come into force (HKMA annual report 2010: 48).

2013: “In order to strengthen our banking system’s capacity against the potential impact of US interest rate normalisation on Hong Kong’s property and mortgage markets, the HKMA launched its sixth round of countercyclical prudential measures in February 2013” (HKMA annual report 2013: 6).

At present (2014) the Hong Kong Monetary Authority is perhaps best described as a quasi currency board or currency board-like system.

Other remarks

We thank Ian Kolman for digitizing the data in Nugée and others (1995), and Joohyun Shim for digitizing most of the remaining raw data, starting in 1992, from the HKMA’s annual reports.

Unlike almost all other monetary authorities, that of Hong Kong has never directly issued a significant amount of notes (paper money). Instead, two or three commercial banks (currently HSBC [the Hongkong and Shanghai Banking Corporation], Standard Chartered Bank, and the Bank of China) issue notes with distinctive designs, as agents for the monetary authority and under rules that it sets. Before Hong Kong established a currency board, banks issued notes competitively in a “free banking” system. As a residue of the previous system, HSBC and Standard Chartered had “fiduciary” issues of notes which are required to be backed certain eligible securities but not by Certificates of Indebtedness (HKMA annual report 1994: 55). The Exchange Fund (Amendment) Ordinance, enacted 15 January 1995, ended the fiduciary issues, which by the time were tiny relative to overall note issue (HKMA annual report 1995: 54). In 1994 the HKMA tried to start replacing HK\$10 notes, the lowest denomination in general use, with coins (HKMA annual report 1994: 55). On 10 September 2002 the HKMA began issuing a HK\$10 note in light of continued public demand for such a note (HKMA annual report 2002: 28).

Bank runs have occurred in Hong Kong on many occasions, though all have been small. The most recent runs happened on 11 November 1997 (International Bank of Asia) and 24 September 2008 (Bank of East Asia) (source: press reports).

1935: The government began issuing Hong Kong \$1 notes on 11 November 1935 (Hong Kong administrative report 1935: A19). These notes, considered small change, were treated like coins and so at the time were not part of the liabilities of the Exchange Fund.

8 December 1941 to 25 December 1941: It is unclear to what extent the Hong Kong dollar was convertible into the pound sterling during this period, when Hong Kong was under Japanese military attack but was not yet conquered.

26 December 1941 to 13 September 1945: During the Japanese occupation of Hong Kong during World War II, the Exchange Fund’s assets were held in London, out of reach of the Japanese. In practice, the Hong Kong dollar was not convertible into the pound sterling during the occupation. There were some unissued notes in the vaults of the Hongkong and Shanghai Banking Corporation. The Japanese occupation government seized the notes and spent them into circulation without the foreign exchange backing that the Exchange Fund had in practice required under British rule. Starting on 1 June 1943, only Japanese military currency was legal tender, although the populace continued to hold notes issued under the auspices of the Exchange Fund as a store of value. Hong Kong returned to British rule on 14 September 1945, and the government later announced that it would honor the notes illegally issued by the Japanese, known as the “duress issues.” Starting in 1946 the Hongkong and Shanghai Banking Corporation made periodic payments to the Exchange Fund to provide foreign exchange backing for the duress issues.

21 August 1948? to 23 June 1972: Hong Kong had a limited free market for U.S. dollars. At the start of World War II, the United Kingdom had imposed exchange controls, and Hong Kong and most other British colonies had followed suit. The purpose of the controls was to keep the exchange rate of the pound sterling at a more appreciated level with regard to the U.S. dollar and other foreign currencies than would otherwise have been the case. To facilitate Hong Kong’s role as a center of regional trade and finance, the British government allowed some trading of Hong Kong dollars for U.S. dollars. The trades were at more depreciated levels for the Hong Kong dollar than implied by the official rate between the pound sterling and the U.S. dollar. Early in the period, there were multiple exchange rates for the U.S. dollar, because exchange controls imposed different rules for transactions arising from different sources.

Because there were no exchange controls between the Hong Kong dollar and the pound sterling, its anchor currency, the free market in U.S. dollars was not a deviation from currency board orthodoxy. The United Kingdom floated the pound sterling on 23 June 1972, 17 days after Hong Kong had temporarily abandoned the currency board system, and on 24 June 1972 the distinction between the free market and official rates of the Hong Kong dollar ceased (IMF ARER 1950: 52, 1951: 100-3; 1973: 222-3).

1994: On 2 May the Bank of China, a large commercial bank owned by the Chinese government, became the third bank to issue notes, alongside the privately owned banks HSBC (the Hongkong and Shanghai Banking Corporation) and Standard Chartered Bank (HKMA annual report 1994: 60).

1994: Starting in 1964 the Hong Kong Association of Banks had established Interest Rate Rules limiting rates on many deposits. The Association was able to set interest rates as a cartel because it was supported by legislation and regulation. After consultation with the HKMA, the Association announced on 26 August 1994 that it would begin removing the limits, starting with time deposits on 1 October 1994 (HKMA annual report 1994: 61). The remaining limits ceased on 3 July 2000 (HKMA annual report 2000: 124).

1994: On 30 September 1994 and 14 October 1994 the government announced relaxations of rules that had been applied starting apparently in 1978, which had limited banks foreign banks and restricted license banks authorized to operate in Hong Kong after that time to a single office in the territory (HKMA annual report 1994: 62).

1996: A real-time gross settlement system for bank clearings began operations on 9 December, leading to the end of the Accounting Arrangements, in effect since 1998, that had shaped relations between the Exchange Fund (later the HKMA) and the Hongkong and Shanghai Bank (later HSBC), which previously had operated the clearinghouse. Under the new arrangements, banks settled balances directly with the HKMA, which operates the settlement system (HKMA annual report 1996: “Monetary Stability” and “Market Infrastructure” chapters).

1998: The HKMA implemented measures to increase its transparency. On June 11 it began to disclose its forecast for the Aggregate Balance; in November it began daily publication of the size and components of the monetary base; starting from its November meeting, the Sub-Committee on Currency Board Operations of the Exchange Fund Advisory Committee, formed earlier in the year, began publishing its minutes within six weeks of each meeting. Also, starting from 1 October 1998, the HKMA earmarked specific U.S. dollar assets as backing for the monetary base (HKMA annual report 1998: 39-40, 76, 94).

2000: Since October 1998, the HKMA had earmarked specific assets of the Exchange Fund to back the monetary base. Initially set at 105%, the backing ratio had steadily increased from investment income. In January 2000, trigger points were established for transferring assets between the backing portfolio and the investment portfolio of the Exchange Fund. When assets reached in the backing portfolio reached 112.5% of the monetary base, the HKMA would normally transfer assets to reduce the backing portfolio’s ratio to 110%. When the backing portfolio fell below 105%, the HKMA would normally transfer assets from the investment portfolio to restore the backing ratio to 107.5% (HKMA annual report 2000: 43).

2000: Hong Kong opened a U.S. dollar clearing system overseen by the HKMA on 21 August 2000 (HKMA annual report 2000: 125, 126).

2001: On 30 November the HKMA removed restrictions that had limited foreign banks to no more than three branches (HKMA annual report 2001: 115).

2006: On 25 September Hong Kong introduced deposit insurance, pursuant to the 5 May 2004 Deposit Protection Scheme Ordinance. The HKMA was given the responsibility of implementing the decisions of the Hong Kong Deposit Protection Board, including deciding whether to pay compensation to depositors of failed banks up to Hong Kong \$100,000 per person (HKMA annual report 2004: 136; 2006: 63).

2007: From March to May there was a problem with counterfeiting of old \$1,000 notes of the Hongkong and Shanghai Banking Corporation that were being withdrawn from circulation (HKMA annual report 2007: 41). The language of the report suggests that the problem was minor.

2008: On 14 October the Financial Secretary announced two precautionary measures to bolster public confidence in the banking system: a temporary 100% deposit guarantee and a contingent capital facility for banks. These steps were taken during a period of worldwide financial panic (HKMA annual report 2008: 55).

2009: With the large expansion in the monetary base resulting from conditions during the world financial crisis, the backing ratio of assets held against the base declined to 105% on 13 November, touching the lower trigger level at which, under the arrangements approved by Hong Kong's Financial Secretary in January 2000, U.S. dollar assets were transferred from the Investment Portfolio to the Backing Portfolio of the Exchange Fund to restore the ratio to 107.5%. This was the first time the lower trigger level was reached since the HKMA first earmarked specific assets against the monetary base in 1998 (HK annual report 2009: 48).

2010: On 31 December, the temporary 100% deposit guarantee and a contingent capital facility for banks announced in 2008 ended (HKMA annual report 2010: 48).

2011: On 1 January the upper limit for deposit insurance compensation rose from Hong Kong \$100,000 to Hong Kong \$500,000 (HKMA annual report 2010: 72, 202).

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Spreadsheets

Annual done; recent high-frequency data available on the Web site of the Hong Kong Monetary Authority.

India

Name, headquarters, dates, membership

Paper Currency Department, headquarters Calcutta, India. The department began operations on 1 March 1862. It was replaced by the Reserve Bank of India on 1 April 1935. Act 19 of 1861, establishing the department, called it the Department of Issue of Paper Currency; Act 3 of 1871 called it the Department of Issue; Act 20 of 1882 called it the Department of Paper Currency; and Act 45 of 1920 called it the Currency Department. Statements in the *Gazette of India* use the name “Department of Issue of Paper Currency” through 1920 and “Currency Department” from 1921. Annual reports issued as separate publications, which begin with the 1883/1884 financial year, say “Paper Currency Department” initially and start using “Currency Department” in the 1911/1912 report.

The reason for establishing the Paper Currency Department was to provide India with a uniform currency that would produce profits for the government. The Paper Currency Department was replaced by the Reserve Bank of India because it had long been thought that India needed a more discretionary monetary policy to provide greater elasticity of note issue and to promote its economic development.

Legislation

- India, An Act to Provide for a Government Paper Currency, No. 19, 16 July 1861: Established the Paper Currency Department.
- India, Indian Paper Currency Act, No. 8, 26 June 1893: Abandoned the silver standard for what we would now call a managed float.
- India, Commerce and Finance Department, Notification of 21 January 1898: Established a gold/sterling standard.
- India, notification? of 5 August 1914: The Indian government ceased selling gold to private persons.
- India, Reserve Bank of India Act, No. 2, 6 March 1934: Established a central bank to replace the Paper Currency Department.

For a detailed legislative history, see Weintraub and Schuler (2013: 16-22).

Exchange rate and currency system

The exchange rate underwent the following changes:

- 1 March 1862-25 June 1893: 1 Indian rupee = 165 troy grains (10.6918 grams) of pure silver. Rupee coins were 11/12 fine silver, so their total weight was 180 grains.
- 26 June 1893-January 1898: Floating, hence not a currency board during this period.
- January 1898-4 August 1914: 1 rupee = 1 shilling 4 pence sterling (240 pence = 20 shillings = £1), or 1 rupee = 7.53344 troy grains gold. The resumption of a fixed exchange rate re-established a currency board.
- 5 August 1914-19 December 1916: 1 rupee = 1 shilling 4 pence sterling as the Paper Currency Department ceased exchanging notes for gold following the outbreak of World War I, altering the exchange rate system to a pure sterling exchange system.
- 20 December 1916-27 August 1917: 1 rupee = 1 shilling 4 pence sterling, but the government in effect limited convertibility of the rupee into sterling, so from this point to the end of the Paper Currency Department the system was no longer a currency board.
- 28 August 1917-September 1924: Managed float against sterling corresponding roughly to vicissitudes in the exchange rate of silver. (The rupee was a silver coin, and coins exceeded notes in circulation, so to avoid mass melting down of rupees the exchange rate against sterling had to be such that rupee coins did not become worth less as coins than as metal.) From 5 February-September 1920 the government made unsuccessful efforts to stabilize the exchange rate.

- September 1924-31 March 1935: 1 rupee = 1 shilling 6 pence sterling, at first de facto and officially from 1 April 1927. When Britain abandoned the gold standard in September 1931, India followed, preserving the exchange rate with sterling.

There was no commission fee or minimum amount for exchanging Indian silver coins with notes of the Paper Currency Department. There was a charge of 2.1% for foreign silver coins or silver bullion (India, Act 19 of 1861, section 9).

The Indian rupee at the time was a nondecimal currency subdivided into 16 annas, 64 paises (pice; 4 pice = 1 anna), or 192 pies (12 pies = 1 anna).

As its name implies, the Paper Currency Department only issued notes, not coins. Apparently during the whole of its existence, coins exceeded notes in circulation. Figures for coins in circulation are highly imprecise because silver rupees were frequently melted for ornamental or industrial use. Notes were in denominations of 10 (later reduced to 5) to 1,000 rupees. During World War I, the Indian Treasury issued notes for as low as 1 rupee as substitutes for rupee coins. These were intended as temporary issues so they were not made through the Paper Currency Department, just as in Britain at the time the Treasury issued notes for denominations smaller than the Bank of England was allowed to make.

Financial year; sources of data

Until 1866 the financial year ran from 1 May to 30 April. The 1866/1867 financial year ran from 1 May to 31 March. Subsequent financial years ran from 1 April to 31 March.

The main source of data is the *Gazette of India*, which shows monthly balance sheets. Starting in 1884 the Paper Currency Department began to issue separately published annual reports rather than reporting certain annual data in the *Gazette of India*. Our file from the *Gazette of India* has a number of gaps despite searches in libraries in Washington, London, and Cambridge. Besides the annual reports of the Paper Currency Department, we used India (1893) to fill in gaps.

The International Monetary Fund's *International Financial Statistics* database does not cover India during the period of the Paper Currency Department.

Remarks on the balance sheet

"Reserve treasuries" mentioned in the balance sheet were government cash vaults; they ceased to exist after January 1921 when the Imperial Bank of India was created to undertake some central bank-like functions.

Remarks on the income and expenditure statement

For a standardized data series on the income and expenditures of the Paper Currency Department, we used Reserve Bank of India (1954: 668-669).

Remarks on other accounts and data

Some weekly data are available starting in 1899 or possibly 1898 (we currently lack the 1898 *Gazettes*).

Deviations from orthodoxy

The Paper Currency Department operated as a quasi currency board from January 1872 to 25 June 1893 and from January 1898 to 19 December 1916. During its early years, March 1862 to December 1872, the Paper Currency Department did not operate as a currency board because it varied its holdings of Indian government securities in such a manner as to suggest discretionary monetary policy. Near the middle of its existence, from 26 June 1893 to early January 1898, the Paper Currency Department was not a currency board because the exchange rate floated rather than being fixed as the definition of a currency board requires. And from 20 December 1916 de facto limits on convertibility into sterling and later a fluctuating exchange rate and frequent variations in domestic assets meant that the Paper Currency Department was not a currency board because other it failed to meet elements of the definition of a

currency board.

During its two currency board periods, the Paper Currency Department was a quasi currency board rather than an orthodox board because unlike an orthodox board it held considerable domestic assets, in the form of Indian government securities. During those periods, though, the Paper Currency Department did not vary its holdings of Indian securities for monetary policy purposes, but instead passively held the maximum allowable by law and let the monetary action on the margin be determined in the foreign exchange market, as a currency board does.

Other remarks

Charles Weintraub digitized most of the data. Weintraub and Schuler (2013) contains extensive detail on the Paper Currency Department.

Some of the princely states also issued notes during the existence of the Paper Currency Department. Their issues were comparatively small.

During the period of the Paper Currency Department, India comprised present-day India, Bangladesh, and Pakistan. Indian paper currency was also used in Nepal. It may also have been used slightly in Bhutan, which was predominantly a barter economy where even coins were not much used.

The *Gazette of India*, 11 April 1896: 256-265, has a discussion about the history of the Paper Currency Department's holdings of Indian government securities in the context of a proposal to raise the uncovered issue from 8 to 10 crores (1 crore = 1 million rupees).

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Spreadsheets

High-frequency done; no separate annual workbook.

Iraq

Name, headquarters, dates, membership

Iraq Currency Board, headquarters London.

The board was established on 11 June 1931, when its first members were appointed. It issued its first notes and coins on 1 April 1932. The reason for establishing the board was to establish a national currency that would generate revenue for the Iraqi government (ICB annual report 1933: 1). (A board similar to the Palestine Currency Board was proposed in 1926 but was disliked by nationalists because the seat would have been in London [Great Britain 1932: 128; National Bank of Iraq annual report 1950: 4]). The Iraq Currency Board was established soon before Iraq became independent from the United Kingdom, which was governing the country under a League of Nations mandate. British forces had conquered Iraq from the Ottoman Empire during World War I, and had replaced Ottoman currency with Indian currency. India was a British colony, and British protectorates in the Persian Gulf, such as Kuwait, already used Indian currency. The Iraq Currency Board was liquidated and succeeded by the National Bank of Iraq, a central bank, on 1 July 1949. The currency board had been envisioned as a temporary institution, which according to its founding law would cease to exist on the formation of a central bank (National Bank of Iraq annual report 1950: 5).

Legislation

- Iraq, Iraq Currency Law, No. 44, 19 April 1931: Established the Iraq Currency Board.
- Iraq, [name, number and precise date of law to come], 1939 (cited in National Bank of Iraq annual report 1950: 5): Authorized the government to participate in the creation of a National Bank (central bank) under specific conditions.
- Iraq, National Bank of Iraq Law, No. 43, July 1947: Replaced the currency board with the National Bank of Iraq, a central bank.

Exchange rate and currency system

The exchange rate was 1 Iraqi dinar = £1 sterling. Originally, the dinar was to have been equal to 7.322382 grams of gold, which at the time was equal to £1 sterling, but before the Iraq Currency Board issued its first currency, the United Kingdom devalued the pound sterling against gold, so the Iraqi government amended the currency law to delete mention of a gold parity (ICB annual report 1933: 6, 10).

The Iraq Currency Board imposed a commission fee of 0.125% and a minimum exchange size of 10,000 Iraqi dinars (ICB annual report 1933: 4).

The Iraqi dinar was a decimal currency, divided into 1,000 fils. The Iraq Currency Board issued coins of 1 to 200 fils, and notes of 250 fils (0.250 dinars) to 100 dinars. The Iraqi dinar replaced the Indian rupee as Iraq's currency. The exchange rate was 75 fils (0.075 dinar) per rupee from 1-28 April 1932; 74 fils from 29 April-5 May 1932; and 74.5 fils from 6 May-30 June 1932, after which the exchange period ceased. These rates were based on rupee-sterling exchange rates of the time (ICB annual report 1933: 3). The Iraqi Minister of Finance had the power to prohibit the use of Indian currency for retail transactions as of 1 October 1933 (ICB annual report 1934: 4); we infer that he used it.

Financial year; sources of data

The Iraq Currency Board's financial year ran from April 1 to March 31. Apparently, many Middle Eastern countries have used these dates after the end of Ottoman rule because April 1 begins the nearest quarter to March 1, which was the start of the fiscal year in the Ottoman Empire.

We have copies of all the Iraq Currency Board's annual reports. The first annual report of the National Bank of Iraq also contains some data from the last few months of the Iraq Currency Board's existence that are not in currency board's last annual report.

The *Iraq Gazette* contains monthly data on the currency board. We are missing data from February 1937, November 1937, April 1938, September 1939, July-November 1940, September 1941,

November 1943, July-September 1945, November 1945, November 1946, January-February 1947, January 1948, October 1948, and April 1949.

The International Monetary Fund's *International Financial Statistics* database does not cover Iraq during the period of the currency board.

Remarks on the balance sheet

As with other British colonial currency boards that published similar accounts, we have used the Estimated General Position as the basis for our standardized balance. The difference was small, consisting in the difference between securities being valued at market value in the Estimated General Position versus being valued at cost in the balance sheet.

The 1941 "Balance" item states £625,222, but on page 4 it states £626,222, which makes liabilities equal assets.

Remarks on the income and expenditure statement

The income and expenditure statement was called the Profit and Loss Account.

The Iraq Currency Board charged a commission fee of 0.125% for exchanges on London. Its minimum exchange amount was 10,000 Iraqi dinars (ICB annual report 1933: 4).

Remarks on other accounts and data

Expenses of Manufacture and Supply Account: Cost of minting notes and printing coins.

Issue and Redemption Account: Shows gross amounts of currency issued against and redeemed for payment in London.

Currency Reserve Fund: Notes and coins in circulation.

Deviations from orthodoxy

The Iraq Currency Board held a minuscule amount of Iraqi government securities from 1939 to 1943, never exceeding 0.5% of total assets.

Other remarks

1933: The five directors of the Iraq Currency Board included two nominated by the Iraqi government; two bankers nominated by three London-based banks that had offices in Iraq; and one member nominated by the Bank of England or the Finance Committee of the League of Nations (reflecting that Iraq was then a League of Nations mandate under British control). The Iraqi government nominated the chairman (ICB annual report 1933: 7).

1937: The annual report starts to list quarterly figures for currency in circulation.

1938: First mention of counterfeit coins (ICB annual report 1938: 4).

1941: The government established Rafidain Bank, a commercial bank, to serve as the depository of government funds and to undertake commercial banking business (National Bank of Iraq annual report 1950: 5).

1947: First mention of counterfeit notes (ICB annual report 1947: 4).

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Spreadsheets

Annual and high-frequency done.

Ireland

Name, headquarters, dates, membership

Currency Commission, headquarters Dublin, Ireland, 21 September 1927 to 31 January 1943.

The Currency Commission was established from 21 September 1927 in accord with the Currency Act, 1927. Upon achieving independence from the United Kingdom in 1922, Ireland had six note-issuing commercial banks — including the specially privileged Bank of Ireland — and four deposit-only banks. Bank of England notes and British Treasury 10-shilling notes also circulated. A commission of inquiry appointed by the Irish government in 1926 recommended a government monopoly of currency issue but rejected a central bank on the grounds that Ireland already had a sound banking system with easy access to the London money market, and that existing banks were handling government accounts satisfactorily. The Currency Commission allocated notes to each bank according to a formula that took into account the value of note issue for note-issuing banks. The act limited the Currency Commission's fiduciary note issue to £6 million, compared to £6,354,494 for all of Ireland, North and South, under the 1845 British act. The Currency Commission acquired reserves by requiring note-issuing banks to deposit with it government securities to cover their issues. (Banks still received the interest from the securities.) Note-issuing banks replaced their previous issues with a new design, called the Consolidated Notes, issued under the supervision of the Currency Commission. The Consolidated Notes had a uniform design for each denomination, varying only in the name of the issuing bank and the signatures of its officials listed. The Consolidated Notes entered circulation on 6 May 1929 (Ireland, Currency Commission annual report, 1930: 2). Over time, the Currency Commission reduced their amount, as the Currency Act, 1927 gave it the power to do. Some Consolidated Notes remained in circulation until 31 December 1953, the limit set by the Central Bank Act, 1942. British notes previously in circulation when the Currency Commission began were gradually retired (Ireland, Currency Commission annual report, 1929: 3).

A second government commission of inquiry, appointed in 1934, reported in 1938 in favor of establishing a central bank. The Central Bank of Ireland opened on 1 February 1943 to succeed the Currency Commission. There was a sentiment that a body capable of more discretionary monetary policy was needed.

Legislation

- Ireland, Currency Act, 20 August 1927: Established the Currency Commission.
- Ireland, Central Bank Act, No. 22 of 1942: Established the Central Bank of Ireland to replace the Currency Commission.

Exchange rate and currency system

The exchange rate was Irish £1 = 123.27447 grains of gold (Currency Act 1927, section 5). This rate meant that the Irish pound was equal to the pound sterling, the true anchor and intervention currency. The Currency Commission was required to redeem its notes in London in any form that was legal tender in the United Kingdom in unlimited amounts. It had the option but not the duty of redeeming notes for gold coins in Dublin (Currency Act 1927, section 49). When the United Kingdom abandoned the gold standard in September 1931, Ireland followed. The Irish pound was also called the *Saorstát* (Free State) pound or the punt, its Gaelic name.

Like the United Kingdom at the time, Ireland used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). The Currency Commission issued notes of £1 to £100 and coins of a farthing (0.25 penny) to a half-crown (2.5 shillings) (Ireland, Currency Commission annual report, 1941: 10-11). The Currency Commission acted as an agent for the Ministry of Finance issuing coins, beginning on 12 December 1928. Previously Ireland had used British coins (Ireland, Currency Commission annual report, 1928: 5). The balance sheets of the Currency Commission do not include coins, because coins remained a liability of the Ministry of Finance.

We have not found any mention of a commission fee or of a minimum exchange size, though we suspect there was a minimum exchange size.

Financial year; sources of data

The financial year of the Currency Commission ran from 1 April to 31 March.

We have all issues of the Irish Currency Commission's annual report and its separately published annual accounts. The first annual report of the Central Bank of Ireland contains some statistics from the last months of the Currency Commission's existence.

The annual reports of the Currency Commission contain weekly statistics on the outstanding amounts of Currency Commission Legal Tender Notes starting in 1928, and Consolidated Bank Notes and other bank notes in 1929 (Ireland, Currency Commission annual report, 1929: 5; 1930: 8-9). We have digitized the totals for the Legal Tender Notes and the Consolidated Notes, plus the amounts for individual banks of notes other than Consolidated Notes. Other high-frequency data may exist in the government gazette (*Iris Oifigiúil*, sometimes also called the *Irish State Gazette*), which we did not search. There was also apparently a *Currency Commission Bulletin*, which we have not seen.

The International Monetary Fund's *International Financial Statistics* database does not cover Ireland during the period of the currency board.

Remarks on the balance sheet

The publications of the Currency Commission do not explain the different components of the balance sheet. Here is our attempted explanation. We added elements of all to obtain a consolidated balance sheet.

- Legal Tender Note Fund: Balance Sheet: Included notes of the Currency Commission only.
- Note Reserve Fund: Represented the excess of assets over Currency Commission notes in circulation.
- General Fund: Balance Sheet Included assets and liabilities other than those corresponding to the the Consolidated Bank Notes.

1930: The Legal Tender Note Fund closed its financial year with a half-year deficiency of £3,562.50, which was made good by a transfer of that amount from the Note Reserve Fund (Ireland, Currency Commission annual report, 1930: 5). Similar transfers were made at times in other years.

Remarks on the income and expenditure statement

General Fund: Profit and Loss Account: Showed income and expenses.

General Fund: Profit and Loss Appropriation Account: Showed distribution of certain expenses.

General Fund: Surplus Income Account: Showed distribution of surplus income.

Remarks on other accounts and data

Legal Tender Note Fund: Issue Account: Showed issues and redemptions of Currency Commission notes.

Deviations from orthodoxy

The fiduciary issue of the Currency Commission was not a deviation from orthodoxy because it represented a recognition of the value of note issue to the existing note-issuing banks and because there was a 100% marginal reserve requirement beyond the fiduciary issue.

Other remarks

We thank Mary Jackson, a profession researcher, for locating certain documents of the Currency Commission in the National Library of Ireland that were unavailable elsewhere. We thank Kotaro Mitsuhashi for digitizing the weekly data on note issue.

1927: Eight banks became shareholders in the Currency Commission (Ireland, Currency Commission annual report, 31 March 1928: 2).

1928: The Commission began issuing its own Legal tender Notes on 10 September 1928 (Ireland, Currency Commission annual report, 31 March 1929: 2).

1929: The notes of five banks that had hitherto issued notes ceased to be issuable in Ireland from 6 May 1929 (Ireland, Currency Commission annual report, 1930: 2). The Consolidated Bank Notes, discussed above, began circulating in their place.

1930: The Currency (Amendment) Act, 1930, enacted on 10 December 1930, removed the limitation that the securities that the Legal Tender Note Fund had to mature within 12 months (Ireland, Currency Commission annual report, 1931: 3).

1932: There was a stamp duty on Consolidated Bank notes, fixed at 3% a year by the Finance Act 1932, reduced to 2.5% per year by the Finance Act 1937 (Ireland, Currency Commission annual report, 1933: 3; 1938: 4). The Currency Act of 1927 had given the Currency Commission the power to impose conditions (by implication including duties) on temporary issues of Consolidated Notes by banks in excess of the legal maximum.

[Some writers have claimed that the central bank continued to operate as a currency board in practice for some years after being established. Digitized data before 1964 do not yet exist to test the hypothesis. We may obtain data in 2015 to run the numbers.]

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Spreadsheets

High-frequency done; no separate annual workbook.

Isle of Man

Name, headquarters, dates, membership

Isle of Man Treasury, headquarters Douglas, Isle of Man, 1 July 1961? to present.

The government established a monopoly of note issue in 1961 to replace two privately owned banks that issued notes. The rationale may have been the belief that note issue should be a government monopoly. The episode continues today.

Legislation

- Isle of Man Government Notes Act, 1961: Gave sole power of printing Manx notes and coin to the Treasury
- Currency Act, 1992: Allowed for the one-to-one exchange of Manx notes and coin and British notes and coin.
- To our knowledge there is no explicit legislation establishing currency board principles for the external reserves backing the currency. The principle of holding 100% external reserves against note and coins in circulation began sometime before 2000, the earliest data online on reserves. It may have begun as early as 1961, when the government began issuing notes.

Exchange rate and currency system

The exchange rate is Manx £1 = £1 sterling.

There is no exchange commission and apparently no minimum size for exchanges.

The Treasury issues or has issued decimal coins of 0.5 pence to £2 and notes of £1 to £50. Under the pre-1971 system, Manx £1 = 20 shillings = 240 pence, as in the United Kingdom. British coins were used, because before decimalization, no local coins were minted after 1839. The Isle of Man decimalized along with the United Kingdom on 15 February 1971, such that the Manx £1 = 100 pence.

Financial year; sources of data

The financial year is 1 April to 31 March.

The source of data is the Manx government's annual *Detailed Government Accounts*.

Apparently no high-frequency data are published.

The International Monetary Fund's *International Financial Statistics* database does not cover the Isle of Man.

Remarks on the balance sheet

The Manx government's annual *Detailed Government Accounts* offers a fairly detailed balance sheet. The account is called the Manx Currency Account.

Remarks on the income and expenditure statement

The Manx government's annual *Detailed Government Accounts* offers a fairly detailed income and expenditure statement. The account is called the Manx Currency Account.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Dixon (2014) observes that the system seems unorthodox based on reserve pass-through figures that may, however, be misleading.

Other remarks

Brandon Dixon and Kotaro Mitsuhashi digitized the balance sheet data for a working paper by Dixon. Some of our narrative also comes from Dixon's paper.

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Spreadsheets

Annual under construction; no high-frequency data.

Italian Somaliland (now southern Somalia)

Name, headquarters, dates, membership

Cassa per la Circolazione Monetaria della Somalia, headquarters Rome, Italy, 22 May 1950 -5 April 1959.

After World War II, Italy eventually regained control of Italian Somaliland (before the war its colony) as a United Nations trusteeship territory and established a currency board based in Rome. The Somali currency it issued succeeded the East African shilling, issued by the East African Currency Board and imposed during British occupation of Italian Somaliland during World War II. The local currency board enabled Italian Somaliland to gain seigniorage for itself; the East African Currency Board made no payments to the territories where its currency was used during the period the shilling was used in Italian Somaliland.

There was a coordinate “Banking Department” of the Banca d’Italia (Italy’s central bank) in Mogadishu, making the monetary system as a whole a quasi currency board rather than an orthodox currency board. On 6 April 1959 the Banking Department merged with the currency issue agency to form a central bank with headquarters in Mogadishu rather than Rome. The rationale for doing so was the view typical of the time that every independent country should have its own central bank. Somalia was scheduled to become independent, uniting Italian- and British-ruled Somali territory, in 1960.

Legislation

- Italy, incorporation of Cassa per la Circolazione Monetaria della Somalia, 18 April 1950 (reprinted in Cassa per la Circolazione Monetaria della Somalia annual report 1950/1951: 75-77): Established the Cassa per la Circolazione Monetaria della Somalia.
- Somalia Trusteeship Administration, Ordinance No. 14, 16 May 1950 (reprinted in Cassa per la Circolazione Monetaria della Somalia annual report 1950/1951: 85-86): Established an exchange rate of 20 Somali somali = £1, or 1 Somali somalo = 0.124414 grams gold
- Italy, Law No. 677, 30 June 1954: Approved a 1950 agreement with the United Kingdom on Somali financial and economic matters, relating to the reversion of Italian Somaliland to Italian control after World War II. The agreement included the introduction of a new currency to replace the East African shilling.
- Italy, Decree No. 1311, 2 December 1958: Converted the Cassa per la Circolazione Monetaria della Somalia into a central bank; the name remained the same.

Exchange rate and currency system

The exchange rate was 20 Somali somali = £1, or 1 Somali somalo = 0.124414g gold (Somalia Trusteeship Administration, Ordinance No. 14, 16 May 1950, reprinted in Cassa per la Circolazione Monetaria della Somalia annual report 1950/1951: 85-86). The exchange rate with the pound sterling meant that the somali was equal to the East African shilling issued by the East African Currency Board, which had preceded the somalo as currency in Italian Somaliland and remained used in neighboring British Somaliland and Kenya.

We have not yet read through all of the annual reports of the CCMS and do not yet have information on commission fees and minimum exchange amounts.

The somalo was divided into 100 centesimi. The Cassa per la Circolazione Monetaria della Somalia issued coins of 1 centesimo to 1 somalo and notes of 1 to 100 somali.

Financial year; sources of data

We have copies of the annual reports of the Cassa per la Circolazione Monetaria della Somalia except 1950/1951 (a single report covering both years), 1952, and 1957 [we may be able to obtain these through a contact].

The annual report of the Cassa per la Circolazione Monetaria della Somalia contains monthly data on currency in circulation.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet of the monetary authority during the period of the currency board.

Remarks on the balance sheet

To come.

Remarks on the income and expenditure statement

To come.

Remarks on other accounts and data

The annual report of the Cassa per la Circolazione Monetaria della Somalia also shows balance of payments data and some interest rate data.

Deviations from orthodoxy

No reserve requirement existed against coins of less than 1 somalo. For other currency the requirement was 100% foreign reserves.

To repeat, there was a coordinate "Banking Department" of the Banca d'Italia (Italy's central bank) in Mogadishu, making the monetary system as a whole a quasi currency board rather than an orthodox currency board.

Other remarks

Currencies other than the somalo ceased to be legal tender on 22 August 1950 (Somalia Trusteeship Administration, Ordinance No. 17, 16 May 1950; Order No. 45, 20 July 1950; both reprinted in Cassa per la Circolazione Monetaria della Somalia annual report 1950/1951: 98-100).

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Spreadsheets

Under construction.

Jamaica

Name, headquarters, dates

Commissioners of Currency, headquarters Kingston, Jamaica.

Established [date] 1920; began issuing notes 15 March[?] 1920; began issuing coins [date]; ceased issuing currency 30 April 1961; liquidated and absorbed into the successor Bank of Jamaica, a central bank, which began operations 1 May 1961. The rationale for establishing a currency board was apparently initially (in 1904) to allow for the convenience of notes in a small denomination not permitted to banks to issue, and perhaps later to generate government revenue. The rationale for replacing the currency board with a central bank was to allow for greater activism in monetary policy, considered to be more appropriate for a country drawing close to independence.

Legislation

- Jamaica, Currency Note Law, No. 27, 22 September 1904: Created a currency board to issue 10-shilling notes. The board which was not actually established until years later.
- Jamaica, Currency Note Amendment Law, No. 17, 19 September 1918: Made some changes to the composition of the commissioners, allowed notes of any denomination, and reduced the minimum coin reserve from two-thirds to one-half. The 1904 law had not yet come into operation.
- Jamaica, Currency Note Amendment Law, No. 2, 9 January 1920: Allowed the Commissioners of Currency to accept and pay out British Treasury notes (first issued during World War I).
- There may have been a law about 1940 regarding the denominations of notes issued.
- Jamaica, Currency Notes (Amendment) Law, No. 1, 2 February 1956: The Commissioners of Currency could hold up to Jamaican £1 million in local securities as assets.
- Jamaica, Law No. 10, 28 February 1958: Eliminated note issue by banks.
- Jamaica, Bank of Jamaica Act, No. 32, 13 June 1960: Established the Bank of Jamaica, a central bank, to replace the Commissioners of Currency.

Exchange rate and currency system

The exchange rate throughout the existence of the Commissioners of Currency was Jamaican £1 = £1 sterling. Like the United Kingdom at the time, Jamaica used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). British coins, also used in the colonies, went as low as a quarter-farthing (one-sixteenth pence), but the financial statements rarely show fractions of a penny.

We have so far found no information about commission fees or the minimum size of exchanges.

The Commissioners of Currency issued notes of 2 shillings 6 pence (£0.125) to £5. Initially coins were a liability of the Jamaican Treasury, but in [year] the Commissioners of Currency assumed responsibility for them. Local coins were issued only in denominations of ½ pence and 1 pence. British coins were legal tender and comprised the bulk of coins in circulation.

Financial year; sources of data

The financial year of the Commissioner of Currency ran from April 1 to March 31.

We have copies of many but probably not all the annual reports of the Commissioners of Currency, gathered during a long-ago visit to the library of the University of the West Indies in Mona, Jamaica. A report for 1920 may not exist because the currency board only began operations on 15 March 1920, days before the end of the financial year. We lack reports during World War II, and are uncertain whether the Jamaican government published or suspended reports during the war. A report for 1960 may not exist because the Bank of Jamaica was beginning operations, although it did not officially open until 1 May 1961. We have yet to search the gazette, colonial annual reports, and blue books for additional information.

The Department of Statistics, Balance of Payments Section, published a monograph called *Monetary Statistics 1952-1956* and a follow-up monograph extending to 1957. We have yet to check for later issues.

Higher-frequency data than the annual data we collected may exist in the government gazette, which we have not searched.

Starting with 1953, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

Initially the Commissioners of Currency were only responsible for issuing notes (paper money) and the government treasury issued coins. The government transferred the issuance of coins to the Commissioners of Currency in [year—citation to come]. By 1946, and perhaps as early as 1940 (we lack the financial statements), the Commissioners of Currency divided the balance sheet into two parts, a Note Security Fund and a Coinage Fund.

[Were the Savings Bonds listed at bottom of Coin Security Fund a local issue? Perhaps, but we are uncertain.]

1921: The miscellaneous liability is an advance by the government Treasurer.

1922: Notes in circulation fell substantially because of a post-World War I trade depression and because notes for 2 shillings 6 pence (£0.125) were withdrawn from circulation and replaced by coins. At the time, coins were issued by the government treasury rather than by the currency board. The Depreciation Fund of £1,000 (against a depreciation of the board's securities) was invested at the Government Savings Bank. The miscellaneous liability is an advance by the government Treasury for expenses.

1923: The balance sheet for the first time specifies that coin on the asset side of the balance sheet is silver. It also lists British currency notes (paper money) among the assets. It is possible that in previous years, British currency notes were counted under the heading "coin" because for legal purposes they were. [Perhaps change the balance sheets in that case and insert a note—see p. 574 of the 1922/3 AR.] In addition to the Depreciation Fund, the Commissioners of Currency have a deposit of £73.125, which I assume was placed with the Government Savings Bank or a commercial bank in Jamaica.

1924, 1925: The loan to the government is listed as "Treasurer (for Investment)."

1926: The Depreciation Fund was invested in foreign securities — initially, a bond issued by the Gold Coast (now Ghana).

[At some point the "Coins" heading ceases to say that coins are silver, but we continue to assume they are]

1930: The currency board had funds on deposit with the government Treasurer and owed money to the Treasurer for funds reinvested by the Crown Agents, acting on behalf of the currency board through the Treasurer.

1952: Some assets begin to be deposited in the Joint Colonial Fund kept by the Crown Agents in London. They are listed under Foreign assets—deposits. [but were they deposits, or just short-term securities? Try to find out.]

1955: The entry in Assets > Foreign > Financial assets > other or unspecified is a transfer from the income account. Previously this was not specified separately.

1956: No reserve is listed.

1957: The Commissioners of Currency for the first time began holding securities issued by the Jamaican government, as permitted by the Currency Notes (Amendment) Law, No. 1 of 1956. The law permitted the Commissioners to hold in local securities up to Jamaica £1 million or an amount set by the Governor of Jamaica, subject to the approval of the British government. The securities are listed in the Note Security Fund investments as L.R.S., meaning Local Registered Stock, and come at the end of the

list. “Stock” is an old British term meaning “government securities,” as opposed to its current meaning of “equities.”

1958: “Treasury Bills” at the end of the list of Note Security Fund investments are Jamaican Treasury bills.

Remarks on the income and expenditure statement

1920: The currency board incurred a loss because of the start-up expenses of note printing.

1933: Why the big surge in income in 1933, apparently related to appreciation in the value of assets? See if the annual report discusses the nature of the appreciation.

1945[or maybe an earlier year]-[year]: The Miscellaneous category includes a so-called war bonus. It is unclear what expenses the war bonus covered, and why it persisted for some time after World War II ended.

1951: The currency board began charging a fee of 7/16% for converting pounds sterling into Jamaican pounds, and ½% for converting Jamaican pounds into pounds sterling. Previously it had charged no fee, although it had had a large minimum transaction size.

1956: Commission fees fell to 5/16% for converting pounds sterling into Jamaican pounds, and 3/8% for converting Jamaican pounds into pounds sterling.

1957: The original income-expenditure statement groups together under one heading all expenses other than transfers to assets and to the government, hence detailed information on salaries, the cost of notes, and so forth, is unavailable.

Remarks on other accounts and data

To come.

Deviations from orthodoxy

Almost from the beginning of their existence the Commissioners of Currency held deposits, generally modest, with the Government Savings Bank or the Jamaican Treasury. Apparently the deposits were a convenient way to hold funds that were awaiting investment in securities and to maintain some readily available funds for expenditures such as staff salaries. We do not view the deposits as a significant deviation from orthodoxy because there does not seem to be an intention to maintain large, permanent holdings of domestic assets. Starting in the 1959 financial year, however, the Commissioners began to invest in Jamaican government securities, as a recent change in Jamaican law had permitted. These investments were significant deviations from orthodoxy because they were intended to be permanent holdings of domestic assets. They converted the Commissioners of Currency from a currency board to a currency board-like system.

Other remarks

Some commercial banks in Jamaica also issued notes until 1956 or so. British notes and notes of the British Caribbean Currency Board were also accepted. Jamaican currency was legal tender in the Cayman Islands and we believe the Turks and Caicos Islands.

From [year—by 1945] the currency board took over from the government the responsibility for issuing small-denomination coins. The large-denomination coins in circulation were British, and in particular, all silver coins were British. Annual reports starting in [year—by 1945] show a separate reserve fund maintained against coins in circulation. The spreadsheets consolidate the balance sheets for the note issue and the coinage [we may not yet have done this for all years].

References

Jamaica. Commissioners of Currency. 1919/1920?-1959/1960? *Report for the Year Ending [or Ended] 31st March, ...* (1919/1920?-1944/1945); *Report of the Commissioners of Currency for the Financial Year Ended 31st March, 1946* (1945/1946); *Financial Report for the Year Ended 31st March, 1947* (1946/1947); *Report of the Commissioners of Currency for the Financial Year Ended 31st March, ...*

(1947/1948-1955/1956); *Report of the Board of Commissioners of Currency for the Financial Year Ended 31st March, ...* (1956/1957-1959/1960?). Early year are in Jamaica, *The Annual General Report of Jamaica*. Kingston: Government Printer. Later the report may have been published separately. The title of the 1921/1922 report states that it is for the year ended 31 December 1921, but it contains figures for the fiscal year to 31 March 1922. Similarly for the report of the 1930/1931 report. Unless indicated otherwise, facts mentioned in the text will be found in the report covering the financial year for which they are mentioned. The text above lists financial years under the calendar years they end.

Spreadsheets

Annual done for now (remaining data hard to find in the USA); high-frequency data remain to be investigated.

Jersey

Name, headquarters, dates, membership

Bailiwick of Jersey, Treasury and Resources Department, headquarters Saint Helier, Jersey, 1963? to present.

The government of Jersey issued notes during World War II on an emergency basis but they were not under currency board rules. In 1963 it began issuing notes on a permanent peacetime basis. The principle of holding 100% external reserves against note and coins in circulation began sometime before 2002, the earliest data online. It may date back to 1963.

Legislation

- Jersey, Order in Council of 1834: Gave sole legal exchange currency status to the English currency.
- Jersey, Order in Council of 1840: Allowed for the minting of a Jersey copper penny pegged to a partial value of the English shilling.
- Jersey, Emission de Monnaie de Bronze, 1876: Reintroduced the Jersey copper penny, except at the same divisions and values of the English currency.
- Jersey, Currency Notes (Jersey) Law, 29 April 1941: Introduced notes printed by the States of Jersey in response to the removal of silver coins by Germany occupation forces. The notes were first issued in June 1941 and ceased to be issued in 1945 after Jersey was liberated.
- Jersey, Currency Notes (Jersey) Law, 1959: Linked Jersey notes to all notes considered to be legal tender at a one-to-one exchange rate, payable on demand.
- Jersey, Decimal Currency (Jersey) Law, 1971: Decimalized the currency.
- Jersey, Public Finances (Jersey) Law, 2005: Contained language regarding a currency reserve fund (section 5). To our knowledge this is the first explicit mention of such a fund in legislation, but it existed before in practice. It, or the principle of 100% external reserves, dates at least back to 2002, the earliest date for which online data are available, and may date back to 1963, when the government of Jersey began issuing notes on a permanent peacetime basis.

For other legislation, see Fears (2002-2009).

Exchange rate and currency system

The exchange rate is Jersey £1 = £1 sterling.

There is no exchange commission and apparently no minimum size for exchanges.

The Treasury and Resources Department issues or has issued decimal coins of 0.5 pence to £2 and notes of £5 to £50. Under the pre-1971 system, Jersey £1 = 20 shillings = 240 pence, as in the United Kingdom. Small coins were officially denominated not in pence, though, but in fractions of a shilling. From 1946 to 1971, Jersey issued coins of 1/12 shilling to 1/4 of a shilling, plus a 5-shilling commemorative coin. British coins were widely used. Guernsey decimalized along with the United Kingdom on 15 February 1971, such that the Jersey £1 = 100 pence. During German occupation in World War II the government issued notes for as little as 6 shillings because coins became scarce. It retired the notes after the war and did not issue notes again until 1963 (Jersey 2010).

Financial year; sources of data

The financial year is the calendar year.

The source of data is the Bailiwick of Jersey Treasury and Resource Department's annual *Annex to Financial Report and Accounts*. Online data are available from 2002-2013.

Apparently no high-frequency data are published.

The International Monetary Fund's *International Financial Statistics* database does not cover Jersey.

Remarks on the balance sheet

The Bailiwick of Jersey Treasury and Resource Department's annual *Annex to Financial Report and Accounts* offers a fairly detailed balance sheet. The Jersey Treasury and Resources Department does not, however, consistently record the total value of the Jersey Currency Fund. Following Dixon (2014), we calculate it as total assets less all listed liabilities other than the total value of notes and coins in circulation

Remarks on the income and expenditure statement

The Bailiwick of Jersey Treasury and Resource Department's annual *Annex to Financial Report and Accounts* offers a fairly detailed income and expenditure statement.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Dixon (2014) observes that the system seems unorthodox based on reserve pass-through figures that may, however, be misleading.

Other remarks

Brandon Dixon and Kotaro Mitsuhashi digitized the balance sheet data for a working paper by Dixon. Some of our narrative also comes from Dixon's paper.

References

- Dixon, Brandon. 2014. "Note Issue in the United Kingdom Periphery." Johns Hopkins Institute for Applied Economics, Global Health, and Study of Business Enterprise, Studies in Applied Economics (working paper series) No. [# and month].
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Spreadsheets

Under construction; annual data only.

Jordan

Name, headquarters, dates, membership

Jordan Currency Board, headquarters London until 31 September 1957, then Amman, Jordan from 1 October 1957. The transfer to Amman was effected by a decision of the Jordanian Council of Ministers dated 22 September 1957. The board retained its London premises as an investment office (JCB annual report 1958: 2). It closed the London Office in the autumn of 1962 after having transferred all its remaining duties to Amman (JCB annual report 1963: 2)

The board first met on 14 September 1949 and the original intended start date for operations was 1 January 1950, but the law was amended to allow for a later start date, and the board actually began operations on 1 July 1950. The Jordan Currency Board replaced the Palestine Currency Board. The Central Bank of Jordan Law was published in the Jordanian government gazette on 14 February 1959, but no date was set for implementation (JCB annual report 1959: 3). The Central Bank of Jordan ultimately replaced the Jordan Currency Board on 1 October 1964 in accord with the 1959 law (JCB annual report, 31 March 1964: 1).

The rationale for establishing the currency board was to replace the Palestine Currency Board, which had served Palestine and Transjordan (as Jordan was previously called). As a result of Israel's declaration of independence on 14 May 1948 and the resulting war lasting into 1949, Palestine became divided into Israel, which established a nascent central bank; the Gaza Strip administered by Egypt, which had a central bank; and the West Bank, then belonging to Jordan. The rationale for later replacing the currency board with a central bank was the prevailing view of the time that central banking was superior because it afforded greater scope for discretionary monetary policy, considered more appropriate as the Jordanian economy developed (Central Bank of Jordan annual report 1965: 1).

Legislation

- Jordan, Temporary Law for Jordan Currency, No. 35 of 1949 and Jordan, Law No. 53 of 1949 (an amending act): Established the Jordan Currency Board (both translated in JCB annual report 1951: 5-7).
- Jordan, Central Bank of Jordan Law, 1959: Provided for the Central Bank of Jordan to replace the Jordan Currency Board, although the replacement did not occur until 1964.

Exchange rate and currency system

The exchange rate throughout the existence of the Jordan Currency Board was 1 Jordanian dinar = £1 sterling.

The currency board's commission rate was 1/8% (JCB annual report 1953: 3). It was reduced to 1/16% for mail transfers, probably as of 1 October 1955, remaining 1/8% for telegraphic transfers (JCB annual report 1956: 3).

The Jordanian dinar was divided into 1,000 fils. The exchange rate and the subdivision of the dinar were the same as those of its predecessor the Palestinian pound, though the subdivision of the Palestinian pound was called the mil rather than the fils. The Jordan Currency Board issued coins of 1 to 100 fils and notes of 500 fils to 50 Jordanian dinars (JCB annual report, 31 March 1951: 3-4). The currency board's financial statements were denominated in pounds sterling, under which at the time £1 = 20 shillings (abbreviated "s.") = 240 pence (or pennies, abbreviated "d." from the Latin *denarius*, an ancestor of the penny).

Financial year; sources of data

The Jordan Currency Board's financial year ran from April 1 to March 31.

We have all the annual reports of the currency board. We also have the first annual report of the Central Bank of Jordan has data from the end of the currency board's existence. Further information may be available in the government gazette in Arabic, which we do not read.

Monthly data on currency in circulation are available in the annual reports of the currency board. We have digitized the data. The annual report has no data for April-August 1964, so we filled the data in from the International Monetary Fund's *International Financial Statistics*. We used the series that the IMF calls "reserve money," which corresponds to what the currency board calls "currency in circulation." *International Financial Statistics* also has a series called "currency in circulation," but it shows smaller values than the currency board's series of the same name where they overlap.

Starting with 1964, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

In the first two years of the currency board the "gilt-edged" securities market in London experienced falling prices as interest rates rose, leaving the market value of many of the board's securities below their cost (JCB annual report 1951: 4; 1952: 3).

Remarks on the income and expenditure statement

In its first year the currency board incurred a deficit from start-up expenses, defrayed with a loan of £55,000 from the Jordanian government (JCB annual report 1951: 4). The board repaid the loan with interest at 2% in its second year (JCB annual report 1952: 3).

The total amount transferred to the Jordanian government over the life of the currency board exceeded £6.8 million (JCB annual report 1965: 4).

Remarks on other accounts and data

The financial statements contain a Currency Fund Income Account, a Currency Reserve Fund, and a Building Fund. The Currency Fund Income Account was the account of income and expenses. The Currency Reserve Fund recorded the issue and redemption of currency. The Building Fund was used to construct a headquarters for the Central Bank of Jordan.

Deviations from orthodoxy

Apparently none. The currency board was required the currency board to hold sterling securities by governments other than that of Jordan and to accumulate reserves of 100% plus a reserve fund sufficient to guard against a loss in the value of its assets (Temporary Law for Jordan Currency, No. 35 of 1949, sections 1, 19, in JCB annual report 1951: 5, 7).

Other remarks

The law establishing the currency board specified a five-member directorate but did not allocate seats on any particular basis. The first directorate of the currency board consisted of an English chairman; a director representing the Jordanian government (apparently the Jordanian ambassador in London); a director nominated by the Governor of the Bank of England; a director nominated by the Ottoman Bank, the leading foreign bank in Jordan; and a director nominated by Arab Bank, the leading Jordanian bank. The Ottoman Bank was the board's agent in Amman and the Arab Bank was its agent in Irbid (JCB annual report 1951: 3). Upon the relocation of the board to Jordan from 1 October 1957, the minister of finance became the chairman (JCB annual report 1958: 2).

Palestine Currency Board notes ceased to be legal tender after 30 September 1950, but because coins were in short supply, Palestine Currency Board coins continued to be legal tender. During the period of continued legal tender no commission fee was charged (JCB annual report 1951: 4).

A seasonal peak in currency demand occurred at Eid-El-Fitr, a Moslem holiday whose date in the Gregorian calendar varies (JCB annual report 1960: 2).

The terms of all members of the board expired on 30 September 1960, but they were reappointed for three years from 1 October 1960 (JCB annual report 1960: 2). The same happened three years later

(JCB annual report 1964: 1). The reason for the reappointment was that the Jordanian government had expected to start a central bank by 1960, and later by 1963, but had not actually done so.

Effective 1 October 1962 the currency board transferred its banking business in London from the Ottoman Bank to the Bank of England as a preliminary to establishing a central bank-to-central bank relationship when Jordan established a central bank (JCB annual report 1963: 3).

References

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JCB. Jordan Currency Board. Annual report. 1951-1965. *Report of the Jordan Currency Board for the Year Ended 31st March, ...* (1951-1965). London (to 31 March 1957): Waterlow and Sons; Amman (1958-1965): Jordan Currency Board. The text above lists financial years under the calendar years they end.

Spreadsheets

Annual and high-frequency done.

Kenya (East Africa Protectorate)

Name, headquarters, dates, membership

East Africa Protectorate, Board of Commissioners of Currency (also called Currency Board) (headquarters Mombasa, East Africa Protectorate [also called Kenya]), 2 April 1906 to 30 July? 1920.

A British Order in Council of 19 May 1898 specified what foreign and locally issued coins would be legal tender in the East Africa Protectorate, as Kenya was then called. The colony began to issue coins under a Commissioner (soon afterwards, Commissioners) of Currency in 1898, possibly on 19 May. Previously, currency had been issued by the privately owned Imperial British East Africa Company. The company was unable to operate the colony as a commercial enterprise and turned it over to the British government. It is possible that during this period the Commissioners of Currency operated as a currency board, but the balance sheets of the colonial government in such issues of the government gazette as we have seen lead us to believe that it was not a currency board. Moreover, from the time of the first mention of the coinage in a colonial annual report (Kenya, 1904/1905 annual report: 7-8), no report mentions what principles governed the issuance of coinage, nor did we find any financial statements pertaining to specific backing, if any, for coins.

The Commissioners began issuing notes on 2 April 1906, just after the start of a new financial year (Ross 1927: 202; see also Kenya annual report 1906/1907: 8, which says April 1 was when the relevant legislation was “brought into force as far as notes were concerned”; for the proclamation by the acting Commissioner of Currency, see *Official Gazette of the East Africa and Uganda Protectorates*, 1 April 1906: 107). This was definitely a currency board, as its balance sheets confirm. The Kenya board was succeeded by the East African Currency Board, which also issued currency for neighboring Uganda and Tanganyika (now the mainland of Tanzania). The East African Currency Board took over the assets of the Kenya board on 31 July 1920 (East African Currency Board annual report, 30 June 1921: 4).

Legislation

- United Kingdom, Order in Council of 19 May 1898 (printed in the *London Gazette*, May 20, 1898: 3130-3132): Specified what foreign and locally issued coins would be legal tender.
- United Kingdom, East Africa and Uganda (Currency) Order in Council, 10 February 1905: Formalized the Commissioners of Currency.
- United Kingdom, Secretary of State for the Colonies, Regulations Defining the Constitution, Duties and Powers of the East African Currency Board, 22 May 1920; East Africa and Uganda Currency (No. 2) Order in Council, 26 April 1920; East Africa Protectorate, Proclamation No. 80, 19 July 1920: Replaced the Kenya Commissioners of Currency with the East African Currency Board.

Exchange rate and currency system

Except near the end of the life of the currency board, the exchange was 1 (British) East African rupee = 1 Indian rupee. The exchange rate with the pound sterling initially fluctuated according to market rates of exchange, but from 21 March 1920, when it became known that the British government intended to switch the anchor currency of the East African rupee from the Indian rupee to the pound sterling, the rate stabilized at 10 East African rupees = £1 sterling, or 1 East African rupee = 2 British shillings = 24 British pence (Kenya annual report 1919/1920: 5). During the early months of the successor East African Currency Board there was a currency reform to replace old rupee currency with a new currency, the East African shilling, equal to half an East African rupee.

We do not have information on the exchange fee, but suspect that it was 0.5%, the initial figure for the successor East African Currency Board. We do not have information on the minimum exchange amount.

The East African rupee was initially a nondecimal currency, subdivided like the Indian rupee into 16 annas, 64 paise (pice), or 192 pies. The British government's East Africa and Uganda (Currency) Order in Council of 10 February 1905 provided for subdividing the East African rupee into 100 cents.

Decimal coins were first issued during the financial year ending 31 March 1908 (Kenya annual report 1904/1905: 7-8; 1906/1907: 8; 1907/1908: 8). During its lifetime the Commissioners of Currency issued nondecimal coins of 1 pice ($\frac{1}{4}$ anna) to 1 rupee and decimal coins of $\frac{1}{2}$ cent to 1 rupee (Kenya annual report 1904/1905: 7-8; 1910/1911: 7). It issued notes of 5 to 500 rupees (Kenya annual report 1905/1906: 9; note denomination breakdown in *Official Gazette of the East Africa Protectorate*, 1 July 1908: 359).

Indian coins were also legal tender. The British gold sovereign (£1 piece) was widely accepted at 15 rupees even before the East Africa and Uganda (Currency) Order in Council of 10 February 1905 made the rate official starting 1 April 1906 (Kenya annual report 1904/1905: 7-8; 1906/1907: 8).

After World War I ended the price of silver in terms of gold and gold- or paper-based national currencies rose sharply for a time. The exchange rate of the rupee in terms of sterling quoted by banks, which had previously been 1 shilling 6 pence (15 rupees = £1), appreciated to 1 shilling 8 pence (12 rupees = £1) on 16 May 1919; 1 shilling 10 pence (approximately 10.91 rupees = £1) on 11 August 1919; 2 shillings (10 rupees = £1) on 17 September 1919; 2 shillings 2 pence (approximately 9.23 rupees = £1) on 27 November 1919; 2 shillings 3 pence (approximately 8.89 rupees = £1) on 12 December 1919; and 2 shillings 4 pence (approximately 8.57 rupees = £1) on 19 December 1919. At this point the rise was checked by the colonial government passing the Bank of England and Treasury Currency Notes Ordinance of 11 February 1920, which aimed to prevent the local rupee from appreciating to the equality with the Indian rupee, which was then worth 2 shillings 7 pence (approximately 7.74 rupees = £1). The ordinance made Bank of England and British Treasury notes legal tender in Kenya at 8.50 rupees = £1. This was also the rate at which the British government provisionally proposed to set in the East Africa and Uganda (Currency) Order, 2 March 1920. Banks reduced their exchange rate to 2 shillings (10 rupees = £1) on 31 March 1920 when it became known that 2 shillings would be the rate for the forthcoming East African Currency Board (Kenya annual report 1919/1920: 4-5; East African Currency Board annual report, 30 June 1921: 2-3).

United Kingdom, East Africa and Uganda Order in Council, 2 March 1920, provided that notes denominated in florins (equal to 2 shillings) should be legal tender Kenya annual report 1919/1920: 4).

Financial year; sources of data

The fiscal year initially ran from 1 April to 31 March (Kenya annual report 1904/1905: 4). In 1921, after the East African Currency Board had succeeded Kenya's currency board, reporting switched to a calendar year basis, with the first financial year under the new calendar running from 1 April to 31 December (Kenya annual report 1921: 10).

We have copies of the relevant sections of all Kenya colonial annual reports published from 1897/1898 to 1921. Colonial annual reports contained some annual data. The first mention of the currency in the colonial annual report is in 1905 (Kenya annual report 1904/1905: 7).

The gazette of the East Africa Protectorate (Kenya) published both detailed annual data and monthly summaries of major balance sheet items of the currency board. We lack data from the following months: November-December 1906, March 1907, May 1907, November 1907, and January 1911. (We also have later issues of the gazette; see the entry on the East African Currency Board.)

The International Monetary Fund's *International Financial Statistics* database does not cover Kenya during this period.

We have more complete monthly data than annual data, so we have emphasize the monthly data in the workbook.

Remarks on the balance sheet

The original statements list some assets and liabilities in pounds sterling and others in Kenyan (British East African) rupees. In the standardized data we have converted all figures into pounds sterling for easy comparison with the successor East Africa Currency Board, which denominated its accounts in pounds, and with many other British colonial currency boards that used pounds in their accounts. In the standardized data for late 1919 and in 1920 we continue to use an exchange rate of 15 rupees = £1 even

though the market rate for the rupee had appreciated. In another sheet we show the consequences for the balance sheet of using the market rates used by the banks, which are listed above.

Starting in April 1916 the currency board began to accumulate a Depreciation Fund to guard against a loss in the value of its assets. In the standardized monthly balance sheet, April 1916 is therefore the first month where the currency board shows a positive rather than a zero net worth.

Monthly statements from August 1916 onward remark that the Commissioners of Currency had a back-up line of credit of 5 lacs (lakhs), that is, 500,000 rupees, from the colonial Treasury. We presume that the line of credit existed first as a precautionary wartime measure and later as a guarantee of the solvency of the Commissioners of Currency as the silver-linked local rupee appreciated against the pound sterling, in which the Commissioners' assets were denominated.

Starting in December 1916 the monthly balance sheets include a note that they count a deposit at the London County Westminster and Parr's Bank in London as part of the "gold" reserve. We have separated it from the rest of the gold reserve, which we believe to have been actual gold coin deposited with the colonial Treasurer, until it starts to receive its own line in the balance sheet in March 1920.

The balance sheet for May 1920 remarks that the Crown Agents for the Colonies, a British government body in London that supplied services to colonial administrators, held a further £50,000 in securities on behalf of the Currency Commissioners that were not counted in the balance sheet. We have brought the assets onto the balance sheet.

Remarks on the income and expenditure statement

The original statement lists all receipts and payments in rupees. In the standardized data we have converted all figures into pounds sterling for easy comparison with the successor East Africa Currency Board, which denominated its accounts in pounds, and with many other British colonial currency boards that used pounds in their accounts.

Until the financial year ending March 31 2011, the income and expenditure statement is part of the balance sheet. It is, however, easy to distinguish the balance sheet items from items that would in later years be part of the "Statement of Receipts and Payments," so we have done so.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Exchange controls existed from 1919 to 1920, related to a spike in the price of silver against gold and paper currencies. On 7 November 1919, a local proclamation under the Customs Amendment Ordinance, 1915, forbade the export of Indian one-rupee notes, to prevent a shortage of currency, additional notes being unobtainable from India. On 23 December 1919, a local proclamation under the Customs Ordinance, 1910 forbade importing British gold coins, which were legal tender in Kenya for 15 rupees each but could be bought outside the colony for 8.50 rupees each. The local Gold and Silver Currency Ordinance of 11 February 1920 prohibited the melting down of British and British colonial gold or silver coins. United Kingdom, East Africa and Uganda Order in Council, 2 March 1920, provided that the Kenyan government could suspend redemption of currency notes by a proclamation of the colonial governor, confirmed the validity of the local Bank of England and Treasury Notes Ordinance of 11 February 1920, and specified that debts contracted in rupees before 21 November 1919 could be settled using Bank of England and British Treasury notes at 9.25 rupees = £1 instead of 8.50 rupees = £1. On 23 March 1920 the governor issued a proclamation suspending the obligation of the Commissioners of Currency to exchange notes for coins, meaning gold or silver coins (Kenya annual report 1919/1920: 4-5). We assume that the suspension lasted until the East African Currency Board took over the assets of the Kenya board on 31 July 1920.

Kenya, Ordinance No. 35, 6 September 1921 (cited in Kenya annual report 1921: 10) repealed the Gold and Silver Currency Ordinance of 1920 but imposed penalties for melting down or using other than as currency any silver coins then accepted by law as current in the colony.

Because of the appreciation of silver relative to gold after World War I, and the currency risk in the currency board's balance sheet (assets mostly in pounds sterling, liabilities in the silver-based rupee), at the market rate of exchange, as opposed to the accounting rate of £1 = 15 British East African rupees, the currency board would have had negative net worth beginning in June 1919.

Other remarks

We thank Andrew Rosenberg for digitizing the data from colonial annual reports and Bryant Lie for digitizing the monthly data from the government gazette.

1905: The British government's East Africa and Uganda (Currency) Order in Council of 10 February 1905 provided that initially, reserves equal to at least two-thirds of notes in circulation had to be held in coin, but the coin reserve could be reduced as low as 50% with the permission of the British Secretary of State for the Colonies. The remainder of the reserve could be invested in any British Empire securities except the government securities of the East Africa Protectorate (Kenya) and Uganda.

1909: Banks held as reserves large share of the notes issued by the currency board (Kenya annual report 1908/1909: 8).

1909: A Mombasa firm acted as agents for the Chartered Bank of India, Australia and China. This is the first mention in the colonial annual reports of any bank other than the National Bank of India, a privately owned Indian bank with many British shareholders that had branches around the Indian Ocean (Kenya annual report 1908/1909: 8).

1910: A Post Office Savings Bank was established (Kenya annual report 1936: 44).

1915/1916: A large increase in circulation occurred in the early part of this financial year because the Indian Expeditionary Force, brought in to conquer Germany East Africa (now Tanzania) during World War I, imported large quantities of currency that were paid to the Currency Board in exchange for notes (Kenya annual report 1915/1916: 5).

1919/1920: Rates of exchange (we presume this means rates offered by banks) in the 1919-1920 financial year, expressed in British pence (£1 sterling = 240 pence) per East African rupee, were as follows: 1 April 1919, 18; 16 May 1919, 20; 11 August 1919, 22; 17 September 1919, 24; 27 November 1919, 26; 12 December 1919, 25; 19 December 1919, 26. At this point the rise was checked by the passage of the Bank of England and Treasury Currency Notes Ordinance 1920 and a reduction to 24 pence (2 shillings) was effected on 21 March 1920, when the intentions of the East Africa and Uganda Order in Council (No. 2) of 1920 were made known (Kenya annual report 1919/1920: 5).

1920: The Kenya Colony and Protectorate Gold and Silver Currency Ordinance of 11 February 1920 prohibited the melting down and using other than as currency any gold or silver coin current in Kenya, the United Kingdom, or any British possession. The Bank of England and Treasury Currency Note Ordinance, 11 February 1920, made the notes of those institutions legal tender at £1 sterling = 8.50 East African rupees. The object was to keep the sterling exchange rate at 2 shillings 4 pence and to break away from the Indian rupee rate, which had risen to 2 shillings 7 pence. The British government's East Africa and Uganda (Currency) Order in Council of 2 March 1920 provided, among other things, that debts contracted before 21 November 1919 could be settled with Bank of England and British Treasury notes at 9.25 East African rupees instead of 8.50 East African rupees (Kenya annual report 1919/1920: 5). A local proclamation of 23 March 1920 under the East Africa and Uganda (Currency) Order in Council 1920 suspended the obligation of the Currency Commissioners to exchange notes for coin (silver rupees or gold British sovereigns). The purpose of the proclamation was to husband the supply of coin in the colony (1919/1920: 4-5).

1921: A Kenyan proclamation of 7 June 1921 under the East Africa and Uganda Order in Council (No. 2) of 1920 demonetized the silver rupee of the Imperial British East Africa Company and the silver rupee, half-rupee-and quarter-rupee of India. Ordinance No. 35, 6 September 1921, repealed the Gold and Silver Currency Ordinance of 1920, and prohibited the melting down of silver but not gold. British legislation, the Kenya and Uganda (Currency) Order, 10 August 1921, provided for minting a shilling as the standard coin and revoked many of the provisions of the East Africa and Uganda Order in Council (No. 2) of 1920 (Kenya annual report 1921: 10). The Kenya and Uganda (Currency) (No. 2) Order, 7

November 1921, made coins of 10 cents, 5 cents, and 1 cent of a florin circulate at face value, not as 10 cents, 5 cents, and 1 cent of a shilling (half their face value). A proclamation of 16 December 1921 brought the Kenya and Uganda (Currency) Order, 1921 into operation from 1 January 1922 (Kenya annual report 1921: 11). (Although these events occurred at the very end of the Kenyan currency board and affected mostly the early months of the East African Currency Board, we mention them here.)

1931: A Land and Agricultural Bank was established (Kenya annual report 1936: 44). (Although this occurred during the period of the East African Currency Board, we mention it here.)

References

East Africa Protectorate. Gazette. 1899-1920. *The Official Gazette of the East Africa and Uganda Protectorates* (1898-1908); *The Official Gazette of the East Africa Protectorate* (1908-1920); *The Official Gazette of the Colony of Kenya and the East Africa Protectorate* (1920); *The Official Gazette of the Colony and Protectorate of Kenya* (1920). Mombasa (1898-1904?); Nairobi (1904?-1920): Government Printer. (Some issues are available via Google Books.)

Kenya (East Africa Protectorate). Annual report. 1897/1898-1921, 1934-1938. Great Britain (United Kingdom). Colonial Office. *Report by Sir A. Hardinge of the British East Africa Protectorate for the Year 1897-98* (1897-1898); *Report by His Majesty's Commissioner of the East Africa Protectorate* (1899/1901-1902/1903); *Report on the East Africa Protectorate for the Year 1903/1904* (1903/1904); *British East Africa Protectorate: Report for 1904/1905* (1904/1905); *East Africa Protectorate: Report for ...* (1905/1906-1919-1920); *Colony and Protectorate of Kenya: Report for ...* (1921-1930; 1921 report covers 1 April-31 December); *Annual Report on the Social and Economic Progress of the Kenya Colony and Protectorate, ...* (1931-1938). London: His / Her Majesty's Stationery Office. (This series was called Colonial Reports until World War II Colonial Annual Reports afterwards; it was suspended during the war for most colonies.)

Ross, W[illiam] McGregor. 1927. *Kenya from Within: A Short Political History*. London: George Allen and Unwin.

Spreadsheets

Annual and high-frequency done.

Kuwait

Name, headquarters, dates, membership

Kuwait Currency Board, headquarters Kuwait City, Kuwait. Established 4 December 1960 (first meeting of Board); issued first notes and coins 1 April 1961 (KCB annual report 1962: 1). The rationale for establishing the board was to provide Kuwait with its own currency; previously it had used Indian currency. In June 1959 India had introduced a separate currency to be used externally, the Gulf rupee, which was not fully convertible into the Indian rupee. The board was liquidated on 1 April 1969 to be succeeded on that date by the Central Bank of Kuwait (KCB annual report 1969: 2). The government had considered a central bank for Kuwait originally, but decided that the time was not then right, in part because of lack of qualified staff. By 1969 staffing was no longer a worry (KCB annual report 1962: 1; Central Bank of Kuwait annual report, 31 March 1970: 43).

Legislation

- Kuwait, Decree No. 41: Established the Kuwait Currency Board, 19 October 1960.
- Kuwait, Law Concerning Currency, the Central Bank of Kuwait and the Organization of Banking Business, No. 32, 30 June 1968: Established the Central Bank of Kuwait to replace the Kuwait Currency Board.

Exchange rate and currency system

- The initial exchange rate was 1 Kuwaiti dinar = 2.48828 grams gold = £1 sterling. Sterling was the intervention currency. The Kuwaiti dinar was a decimal currency, divided into 1,000 fils. The Kuwaiti dinar replaced the Indian rupee, which had previously been Kuwait's official currency, at 75 Kuwaiti fils (0.075 Kuwaiti dinar) = 1 Indian rupee. The Indian rupee ceased to be legal tender in Kuwait on 12 May 1961, but continued to be accepted in exchange for Kuwaiti dinars at the official rate until 17 May 1961 (KCB annual report 1962: 1).
- When the United Kingdom devalued the pound sterling in the evening of 18 November 1967, Kuwait did not follow, leaving the exchange rate with gold unchanged and making the new exchange rate with sterling 0.85714286 Kuwaiti dinars = £1 sterling (KCB annual report 1968: 2).

The Kuwait Currency Board charted a commission fee on exchanges of Kuwaiti dinars against pounds sterling. The minimum amount for a transaction was 250,000 dinars. Initially the fee was 0.25%; the Board reduced it to 0.125% on 1 May 1962 (KCB annual report 1962: 1).

The Kuwaiti dinar was a decimal currency, divided into 1,000 fils. The Kuwait Currency Board issued coins of 1 to 100 fils, and notes of 250 fils to 10 dinars (KCB annual report 1962: 1).

Financial year; sources of data

The Kuwait Currency Board's financial year ran from April 1 to March 31. Apparently, many Middle Eastern countries have used these dates after the end of Ottoman rule because April 1 begins the nearest quarter to March 1, which was the start of the fiscal year in the Ottoman Empire.

We have copies of all the Kuwait Currency Board's annual reports.

Annual reports contain monthly statistics on currency in circulation from May 1961 onward. Other high-frequency data may exist in the government gazette, which we did not search because of our lack of knowledge of Arabic.

Starting with 1960, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

The first balance sheet, for 31 March 1962, listed amounts to the fils (the subdivision of the dinar). Subsequent balance sheets rounded amounts to the nearest dinar. Because the balance sheet does not break down currency circulation into note and coin circulation, we obtained those figures from elsewhere in the annual reports, where they are listed to the fils. In the mapping and the standardized balance sheet, we added a very small rounding factor (0.104 dinars) for 1963-1969 to reconcile the exact figures for note and coin circulation with the rounding in the balance sheet.

The Currency Reserve Fund provided 100% foreign reserve coverage for currency in circulation. The Special Reserve Fund contained any excess reserves.

Remarks on the income and expenditure statement

The Kuwait Currency Board does not seem to have paid any profits to the government during its existence. It used its profits to accumulate the Special Reserve (described in the section just above). We believe that, as was true of many currency boards, this reserve was supposed to top out at 10% of currency in circulation, with any excess being paid a profits. The devaluation of the pound sterling in 1967 reduced the value of the Special Reserve Fund just as it was drawing close to the 10% level.

Remarks on other accounts and data

The Currency Reserve Fund contained the reserves held against currency in circulation.

Deviations from orthodoxy

The Kuwait Currency Board was required to hold the equivalent of at least 50% of currency in circulation in gold, although in exceptional circumstances, the Board could by unanimous consent reduce the ratio to 33%. It could hold the remainder in securities. Total assets had to be at least equal to currency in circulation, and the law specifying the kinds of assets the currency board could hold mentioned only foreign assets (KCB annual report 1962: 3, 6-7). The provision concerning gold was not really unorthodox, but it was unusual because already by the 1930s, almost all currency boards that had initially held gold or silver had switched to holding only securities and bank deposits as assets.

Kuwait was part of the sterling area, but it allowed limited transfers outside the sterling area — basically, we assume, if they did not appear to be connected with capital flight. There were no restrictions on transfers within the sterling area. The Currency Board took over responsibility for exchange control from the Ministry of Finance and Industry on 15 November 1964 (KCB annual report 1965: 3; 1967: 3). On 5 June 1967, the government subjected all foreign transfers, including those with the sterling area, to martial law as part of the general imposition of martial law at the time. The government lifted martial law and its accompanying restrictions on foreign transfers on 16 December 1967 (KCB annual report 1968: 2-3).

Other remarks

The financial statements for 1962 show amounts to the fils, but subsequent financial statements show amounts rounded to the nearest dinar. The appendixes showing statistics of notes and coins in circulation, however, always show them to the fils.

1962: The amount of Indian rupees exchanged for Kuwaiti dinars was 341,948,145.59, of which 338,782,833 was notes and 3,265,312.59 was coins (KCB annual report 1962: 2). The annual report shows monthly figures for currency in circulation starting with May 1961. We transcribe the figures to our spreadsheet.

1963: The annual report starts to show monthly summary figures on the Kuwaiti banking system starting with December 1962.

1965: The annual report starts to show currency held by banks. We transcribe the figures to our spreadsheet. Figures seem to be rounded to the nearest thousand dinars.

1966: The annual report starts to show a summary quarterly balance sheet for the Kuwait Currency Board. We transcribe the figures to our spreadsheet. It also starts to show statistics on the wider economy, including money supply, crude oil production, and government finance.

1967: The only mention of a forgery (KCB annual report 1967: 3).

References

Bank al-Kuwayt al-Markazī Central Bank of Kuwait . Annual report. 1969/1970. *First Annual Report for the Year Ending 31st March 1970*. [Safat, Kuwait]: Central Bank of Kuwait. (Also in Arabic. All references are to the English translation.)

KCB. Majlis al-Naqd al-Kuwaytī Kuwait Currency Board). Annual report. 1961/1961-1968/1969. *First Report of the Kuwait Currency Board for the Period Ending 31st March 1962* (1961/1962); *Annual Report of the Kuwait Currency Board for the Year Ended 31st March* [Kuwait City: Kuwait Currency Board]. (Cover says “First [etc.] Annual Report.” Also in Arabic. All references are to the English translation.) The text above lists financial years under the calendar years they end.

Spreadsheets

Annual and high-frequency done.

Latvia

Name, headquarters, dates, membership

Has sometimes been discussed as a possible de facto case. We may or may not write it up; this page is a placeholder.

Exchange rate and currency system

Financial year; sources of data

Remarks on the balance sheet

Remarks on the income and expenditure statement

Remarks on other accounts and data

Deviations from orthodoxy

Other remarks

References

Spreadsheets

Under investigation.

Libya

Name, headquarters, dates, membership

Libyan Currency Commission, legal seat in Tripoli, Libya, but de facto headquarters in London. (The Commission was permitted by law to hold meetings outside of Libya and held them in London.) Established February 1952; issued first notes and coins 24 March 1952; liquidated 31 March 1956. Succeeded 1 April 1956 by the National Bank of Libya, a central bank. The reason for establishing a currency board was to issue a uniform currency for the country (see below), under conditions in which the local expertise to run a central bank was lacking. The currency board had been established by Libya's provisional government as an implicitly provisional measure. The permanent government desired a central bank, the first annual report of the central bank implies, because it thought such an institution could more effectively contribute to economic development (National Bank of Libya annual report 1957: 6).

Legislation

- Libya, Libyan Currency Law, No. 4, 24 October 1951: Established the Libyan Currency Commission.
- Libya, National Bank of Libya Law, No. 30, 26 April 1955: Replaced the Libyan Currency Commission with the National Bank of Libya, a central bank.

Exchange rate and currency system

The exchange rate was Libyan £1 = £1 sterling.

The Libyan Currency Commission charged a commission fee of 0.25% for exchanges of Libyan pounds with pounds sterling. The minimum amount of an exchange was £10,000 (LCC annual report 1953: 10).

The Libyan pound was a decimal currency, divided into 100 piastres and 1,000 millièmes. It replaced three currencies formerly used in different parts of Libya: the British Military Authority lira (exchanged at 480 British Military Authority lire = Libyan £1); the Egyptian pound (exchanged at Egyptian £0.975 = Libyan £1) and the Algerian franc (exchanged at 980 Algerian francs = Libyan £1) (LCC annual report 1953: 4).

The Commission issued coins of 1 millième to 2 piastres (20 millièmes) and notes of 5 piastres (50 millièmes or £0.050) to £10.

Financial year; sources of data

The Libyan Currency Commission's financial year ran from April 1 to March 31. Apparently, many Middle Eastern countries have used these dates after the end of Ottoman rule because April 1 begins the nearest quarter to March 1, which was the start of the fiscal year in the Ottoman Empire.

We have copies of all the Libyan Currency Commission's annual reports.

Annual reports contain monthly statistics on currency in circulation from June 1952 onward. Other high-frequency data may exist in the government gazette, which we did not search because of our lack of knowledge of Arabic. A quarterly government publication in English, the *Statistical Summary*, has some additional information on the rest of the financial system.

The International Monetary Fund's *International Financial Statistics* database does not cover Libya during the currency board period.

Remarks on the balance sheet

None.

Remarks on the income and expenditure statement

The 1956 annual report of the Libyan Currency Commission shows total revenues and expenses for the organization's first four years (LCC annual report 1956: 1).

Remarks on other accounts and data

The Currency Reserve Fund contained the reserves held against currency in circulation.

Deviations from orthodoxy

The Commission was allowed to hold up to 25% of its assets in currencies other than the pound sterling. It made a token investment in Italian Treasury bills (LCC annual report 1954: 4). The investment did not constitute a deviation from currency board orthodoxy, though, because Italian securities were foreign securities.

Other remarks

1953: The Commission's members were a chairman and two members nominated by the Libyan government, two members nominated by the Bank of England, one member nominated by the Banque de France, one member nominated by the Banca d'Italia, and one member nominated by the National Bank of Egypt. The reason for this structure was that immediately before Libya's independence, it was under British and French control, it had previously been an Italian colony, and part of the country used Egyptian currency.

The annual reports show monthly figures for currency in circulation starting in June 1952. We transcribe the figures to our spreadsheet.

References

Bank al-Watanī al-Lībī (National Bank of Libya . Annual report. 1956/1957. *First Annual Report of the Board of Directors, Year Ended the 31st March 1957*. Tripoli: National Bank of Libya. (Also in Arabic. All references are to the English version)

LCC. Libyan Currency Commission. Annual report. 1952/1953-1955/1956. *First [etc.] Report of the Libyan Currency Commission for the Period Ending 31st March,* London: Waterlow and Sons (1952/1953); Libyan Currency Commission (1953/1954-1955/1956). (Also in Arabic, which we have not seen.) Unless indicated otherwise, facts mentioned in the text will be found in the report covering the financial year for which they are mentioned. The text above lists financial years under the calendar years they end.

Spreadsheets

Annual and high-frequency done.

Lithuania

Name, headquarters, dates, membership

Lietuvos Bankas (Bank of Lithuania), headquarters Vilnius, Lithuania. The Bank of Lithuania was notionally established as a central bank on 1 March 1990, but at the time Lithuania was still part of the Soviet Union, and the bank had no power; it was merely a shell organization that marked a protest against Soviet rule. After the Soviet Union collapsed and Lithuania achieved real independence in December 1991 the Bank of Lithuania began to exercise real power. It became a quasi currency board on 1 April 1994 after a period of unstable monetary policy, which compared unfavorably with the stability of nearby Estonia. Steve H. Hanke and Kurt Schuler were involved in the monetary reform. The episode ends when Lithuania joins euro area on 1 January 2015.

Legislation

- Lithuania, Law on the Credibility of the Litas, 17 March 1994: Established currency board-like rules for backing.
- Lithuania, Law on the Bank of Lithuania, No. I-678, 1 December 1994: Established currency stability as the bank's principal objective.
- Lithuania, Resolution of the Board of the Bank of Lithuania, No. 60, "On Official Exchange Rate of the Litas," 29 September 1994: We have not seen this.
- Lithuania, Resolution of the Board of the Bank of Lithuania, "On the Fixing the Official Exchange Rate of the Anchor Currency and the Litas," No. 112, 28 June 2001: Provided that from 2 February 2002 the exchange rate would be fixed against the euro, no longer the dollar, at the dollar-euro rate of 1 February.
- Lithuania, Resolution of the Board of the Bank of Lithuania, "On the Calculation of the Official Exchange Rate of the Litas," No. 113, 28 June 2001: Provided that the exchange rate with the euro would be calculated according to the dollar-euro rate market rate announced by the European Central Bank on 1 February 2002.
- Lithuania, Resolution of the Board of the Bank of Lithuania, "On the Anchor Currency and the Official Exchange Rate of the Litas," No. 15, 1 February 2002: Changed the anchor currency from the U.S. dollar to the euro at the market exchange rate.
- Lithuania, Resolution of the Government of the Republic of Lithuania "On Approval to [of] Proposal of the Bank of Lithuania Regarding the Anchor Currency and the Official Exchange Rate of the Litas and Recognition as Invalid the Resolutions of the Government of the Republic of Lithuania," No. 157, 1 February 2002: Approved the decision above to change the anchor currency from the U.S. dollar to the euro at the market exchange rate.
- [Law ending the litas when Lithuania joins the euro.]

Some issues of the Bank of Lithuania's annual report have lists of legislation that year.

Exchange rate and currency system

The exchange rates of the litas have been as follows:

- 1 April 1994 to 1 February 2002: 4 Lithuanian litas = US\$1. From 1 April 1994 to 4 November 2001, banks were charged a fee equal to 0.05% of the transaction value, which was later reduced to 0.025% (Bank of Lithuania annual report 2004: 52).
- 2 February 2002 to present: 3.425280 Lithuanian litas = 1 European euro. This exchange rate was that implied by the cross rate between the U.S. dollar and the euro the previous day. Lithuania switched to the euro as the anchor currency because the euro area was the country's largest trading partner and source of foreign finance. The change occurred one month after euro notes and coins began to circulate, replacing national-currency notes and coins in the euro area.

There may have been a small commission fee [ask our contact if no information is available elsewhere].

The Lithuanian litas (plural litas or, in Lithuanian, litai) is decimal currency, divided into 100 centas (Lithuanian, *centų*; singular *centas*).

Financial year; sources of data

The Bank of Lithuania's financial year is the calendar year.

Annual reports are available on the bank's Web site from 1994.

The Bank of Lithuania Web site contains monthly data starting in December 1993 for the monetary base and reserves backing it, and daily data starting on 11 August 1999 for the Bank's overnight repurchase rate.

Starting with 1992, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

In 2001 the Bank of Lithuania revised its accounting practices slightly (Bank of Lithuania annual report 2001: 125). The 2001 balance sheet also shows the balance sheet for 2000 under the revised practices. We show the 2000 balance sheet as it appeared in the 2000 annual report. In 2002 the Bank of Lithuania extensively changed the format of presentation. Since the financial statements show the previous year for comparison, the 2002 financial statement also shows 2001. We show both the old and new formats for 2001.

Remarks on the income and expenditure statement

For clarity, we have rearranged items, classifying them as income or expenditures, which the original statements only do implicitly. We have also eliminated the negative sign in the original from items on expenditure side of the statement that represent expenses.

Remarks on other accounts and data

None.

Deviations from orthodoxy

The Bank of Lithuania imposed reserve requirements on commercial banks, initially 12%, reduced to 10% on 13 April 1995 (Bank of Lithuania annual report 1994: 11-12).

As its annual reports remark (for instance, Bank of Lithuania annual report 2003: 48), the Bank of Lithuania could lend to commercial banks, and did so (Bank of Lithuania annual report 1997: 38). Laws effective 1 July 2003 also gave the Bank responsibility for encouraging stable and efficient operation of payment and securities settlement systems (Bank of Lithuania annual report 2003: 107). The Bank also acted as a payments agent for the Lithuanian government (Bank of Lithuania annual report 2005: 106; see also 1994: 10). It conducted open market operations to smooth interest rates (see, for instance, Bank of Lithuania annual report 1999: 40).

Here is a description of the Bank of Lithuania's lender of last resort activities from its Web site (Statistics > Monetary Policy and Operations Statistics > "Interest Rates of the Bank of Lithuania Lending Facilities"):

The Bank of Lithuania as lender of last resort, having received an acceptable loan security, may grant liquidity loans to solvent banks that face temporary liquidity problems. From 8th of November 1999 until 14th of October 2008 inclusive the interest rate for liquidity loans, calculated every business day by the Bank of Lithuania, was equals to average value of one day VILIBOR during the period of last 30 calendar days

(including the day when interest rate for mentioned loans is calculated) increased by 4 percentage points. Since the 15th of October 2008 the interest rate for liquidity loans has been equal to the European Central Bank interest rate on the marginal lending facility on the respective day increased by 1 percentage point.

Since 7th of June 2004 the Bank of Lithuania has provided the intraday and overnight repurchase agreement facilities for credit institutions subject reserve requirements applied by the Bank of Lithuania. An overnight repurchase agreement is a repurchase agreement, by which a credit institution repurchases securities from the Bank of Lithuania on the next business day of the LITAS system. An overnight repurchase agreement is only possible if a credit institution has not repurchased securities previously sold to the Bank of Lithuania by an intraday repurchase agreement on the same day. On every business day the Bank of Lithuania establishes an overnight repurchase agreement repo rate which is equal to the ECB marginal lending facility rate.

An overnight loan did mean a payment made by the Bank of Lithuania made during a day's final clearing against payment documents presented to a commercial bank, and collateralised by pledged debt securities acceptable to the Bank of Lithuania in the event of shortage of funds on the correspondent account of such bank. Beginning with the 8th of November 1999 the Bank of Lithuania used to calculate the floating interest rate for overnight loans. This rate was equal to the maximum value of one day VILIBOR during the period of last 15 calendar days (including the day when interest rate for overnight loans is calculated) increased by 2 percentage points. Overnight loan facility was discontinued on the 19th January 2004.

Other remarks

We thank Joohyun Shim for digitizing the financial statements.

1994: Some banks were already in liquidation when the quasi currency board period began and three failed in 1994. By the end of the year there were 22 active banks and 5 inactive ones (Bank of Lithuania annual report 1994: 25).

1995: Two banks failed (Bank of Lithuania annual report 1995: 25, 27).

2004: On 5 February 2004, the Seimas of Republic of Lithuania adopted the Law Amending and Supplementing the Law on the Bank of Lithuania set to come into force on 1 May 2004 (Bank of Lithuania annual report 2003: 111). The law brought Lithuania into conformity with European Union requirements upon its entry into the European Union.

2005: The annual report contains data and remarks on counterfeiting of notes and coins since 1993. The average value of counterfeits in circulation per year from 1993-2005 was 34 centas per person (Bank of Lithuania annual report 2005: 64-65). There are also data on counterfeiting during each year in the individual annual reports.

2006: In May, the European Union rejected Lithuania's application to adopt the euro, on the grounds that Lithuania did not meet the criterion for price stability (Bank of Lithuania annual report 2006: 76). The way in which the criterion was calculated, including countries that were not part of the euro area, the very small margin by which Lithuania missed the criterion, and the laxity with which the European Union had previously applied membership criteria for the euro to Western European countries indicated that the European Union's decision was based on politics rather than economic considerations.

References

Lietuvos Bankas (Bank of Lithuania). Annual report. 1994-present. *Annual Report*. Vilnius: Lietuvos Bankas (Bank of Lithuania). (Also in Lithuanian; all references are to the English version). Available at http://www.lb.lt/annual_report, viewed 17 December 2014.
Lietuvos Bankas (Bank of Lithuania). Web site. <http://www.lb.lt>, viewed 30 July 2011.

Spreadsheets

Under construction.

Macau (Macao)

Name, headquarters, dates, membership

Autoridade Monetária e Cambial de Macau (AMCM — Monetary and Exchange Authority of Macao) until 14 February 2000; slightly renamed Autoridade Monetária de Macau (Monetary Authority of Macau, or in Chinese, Ou Mun Kam Iong Kun Lei Kok; the abbreviation it continued to use for itself is AMCM) from 15 February 2000. The headquarters for this organization is Macau. The currency board episode runs from 20 December 1999 [earlier?] to the present. The rationale for establishing certain currency board-like rules was apparently to create a monetary framework similar to that of Hong Kong, China's other Special Autonomous Region.

Legislation

- China, decree of 31 March 1993, effective 20 December 1999 (Basic Law [for Macau]), articles 108-109: The Basic Law is the legal framework under which Chinese rule succeeded Portuguese rule in Macau. The articles in question provide that the currency shall be backed by a 100% reserve fund (it does not specify what assets constitute backing) and that there shall be no foreign exchange controls. These provisions are similar to those in the Basic Law of Hong Kong.
- Macau, Decreto-Lei 14/96/M, 11 March 1996: Statute of the Autoridade Monetária e Cambial de Macau.
- Macau, Administrative Regulation No. 18/2000, 15 February 2000: Changed the name of the monetary authority to Autoridade Monetária de Macau.
- [Any others?]

Exchange rate and currency system

The exchange rate is 1.03 Macau patacas = Hong Kong \$1.

Currently we have no information on the minimum size of exchanges. We believe that no commission fee is charged.

The pataca is a decimal currency, divided into 100 avos.

The monetary authority has issued coins of 10 avos to 10 patacas. Similarly to the monetary system of Hong Kong, two banks (the Banco Nacional Ultramarino, a subsidiary of the Lisbon-based Caixa Geral de Depósitos since 1 July 2001, and the Bank of China, a Chinese commercial bank) issue notes under currency board rules. Their notes range from 10 to 1,000 patacas.

Financial year; sources of data

The financial year of the monetary authority is the calendar year.

Annual reports of the monetary authority are available in English, Portuguese, and Chinese on its Web site. Some older issues not listed on the current Web site can be viewed through archived versions of the site on the Internet Archive, <http://www.archive.org>. The Web site of the monetary authority contains other information. We are missing the issue for 2000.

The Web site of the Autoridade Monetária de Macau contains monthly data stretching back to June 1984, before the currency board period. The International Monetary Fund's *International Financial Statistics* database likewise shows monthly data for Macau starting in June 1984. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

The growth of foreign reserves has been much faster than the growth in the monetary base in recent years because the government keeps its budget surpluses with the the Autoridade Monetária de Macau.

Remarks on the income and expenditure statement

To come.

Remarks on other accounts and data

To come.

Deviations from orthodoxy

Like the Hong Kong Monetary Authority, the Autoridade Monetária de Macau manages and holds the collected surpluses of the government as well as conducting monetary policy. Because the surpluses have been large in recent years, the foreign reserves of the Autoridade Monetária de Macau far exceed the monetary base. Unlike the Hong Kong Monetary Authority, the Autoridade Monetária de Macau does not segregate the assets and liabilities related to monetary policy into a separate balance sheet. Therefore we do not consider Macau to be an orthodox currency board, and it may not even be a quasi currency board.

Other remarks

Benedict Croak digitized the balance sheets of the Autoridade Monetária de Macau as part of work for a term paper.

The official languages of Macau are Chinese (the native language of almost all residents) and Portuguese (a holdover from Portuguese rule, which ended in 1999). Most information on the monetary authority is also available in English, although not all laws and regulations are.

The arrangement under which two commercial banks issue distinctively branded notes as agents for the monetary authority similar to that of Hong Kong, where three banks issue notes and one, the Bank of China, is the same as in Macau.

Because of Macau's proximity to Hong Kong, Hong Kong dollars circulate widely in Macau.

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- Autoridade Monetária de Macau (Monetary Authority of Macao). Web site. <http://www.amcm.gov.mo/eIndex.htm>, viewed 15 May 2014. (Also in Portuguese and Chinese versions.)
- Croak, Benedict. 2014. "The Authenticity of Macao's 'Currency Board.'" Term paper, Johns Hopkins University. We wrote this section before being able to read the paper and will incorporate any additional findings it has in a later version.

Spreadsheets

Under construction.

Maldives

Name, headquarters, dates, membership

Possible case that requires investigation; this page is a placeholder.

Exchange rate and currency system

Financial year; sources of data

Remarks on the balance sheet

Remarks on the income and expenditure statement

Remarks on other accounts and data

Deviations from orthodoxy

Other remarks

References

Spreadsheets

Under investigation.

Malta

Name, headquarters, dates, membership

- Government of Malta, headquarters Valetta, Malta, 15 August 1914 to 30 September 1915. Malta had long used British currency. The Maltese government temporarily issued small-denomination notes during World War I as an emergency measure. We believe it was a currency board but are not completely sure. We have listed the details below in “Other remarks.”
- Issue of small notes in 1918; details to come.
- Board of Commissioners of Currency, headquarters Valetta, Malta, 1 January 1940 to 6 June 1968. (The starting date of the episode is from Sammut 2001: 167.) During World War II the government issued notes again. This time the notes remained in circulation after the war, and in 1949 the government converted the note issue into a currency board.

The government established a central bank, the Bank of Malta, to replace the currency board, on the advice of experts from the United Nations. The central bank began some operations on 17 April 1968 but the assets of the Board of Commissioners of Currency were not transferred to it until 7 June 1968.

Legislation

- Malta, Paper Currency Ordinance, No. 48, 13 September 1939: Permitted a government note issue of notes for as little as two shillings, to the amount of £500,000, as an emergency measure during World War II. The British government did not want to expand the circulation of British notes in Malta lest the island be captured by Axis forces. British notes already in Malta remained in circulation, though. We believe that the system was a currency board from the start, although the law did not provide explicitly for any particular reserve backing.
- Malta by a multitude of government notices authorized further issues of notes. Insofar as we have them, the notices and their dates are: No. 13, 12 January 1940; No. 215, 18 May 1940; No. 318, 24 June 1940; No. 353, 13 July 1940; No. 401, 2 August 1940; No. 137, 1 April 1941; No. 236, 16 May 1941; No. 250, 30 May 1941; No. 324, 4 July 1941; No. 399, 22 August 1941; No. 468, 17 October 1941; No. 563, 10 December 1941; No. 91, 20 February 1942; No. 146, 26 March 1942; No. 246, 27 May 1942; No. 319, 30 June 1942; No. 365, 16 July 1942; No. 412, 11 August 1942; No. 477, 12 September 1942; No. 526, 12 October 1942; No. 587, 9 November 1942; No. 615, 17 November 1942; No. 698, 24 December 1942; No. 69, 2 February 1943; No. 184, 13 April 1943; No. 272, 1 June 1943; No. 307, 18 June 1943; No. 352, 20 July 1943; No. 452, 2 October 1943; No. 496, 2 November 1943; No. 212, 30 May 1944; No. 308, 26 July 1944; No. 419, 3 October 1944; No. 451, 31 October 1944; No. 173, 13 April 1945; No. 283, 19 June 1945; No. 435, 11 September 1945; No. 461, 27 September 1945; No. 608, 11 December 1945; No. 630, 21 December 1945. The notices, in the *Malta Government Gazette*, authorize the additional issue or the exchange of notes of various denominations.
- Malta, Paper Currency (Amendment) Ordinance, No. 15, passed 22 September 1942, assented 25 September 1942: Reduced the lowest denomination of note from 2 shillings to 1 shilling.
- Malta, Currency Notes Ordinance, No. 1, 21 January 1949, brought into force by Governor's Proclamation No. 2, 8 March 1949: Established a currency board.
- Malta, Currency Notes Regulations, Government Notice No. 226, 12 April 1949: Regulations governing aspects of the currency board's operation.
- Malta, Currency Notes (Amendment) Regulations, Government Notice No. 780, 9 December 1949: Made a change regarding note serial numbers.
- Malta, Currency Notes (Amendment) Ordinance, No. 15, passed 7 August 1960, enacted 8 August 1960: Substituted the Financial Secretary and the Accountant General for the Legal Secretary and the Treasurer as the members of the board.

- Malta, Central Bank of Malta Act, No. 31, 11 November 1967; Notice No. 32, 17 April 1968; Notice No. 47, 7 June 1968: Established the Central Bank of Malta on 17 April 1968 to replace the currency board. The transfer of the Note Security Fund, making the central bank a monetary policy institution, became effective on 7 June 1968.

Exchange rate and currency system

The exchange rate was Maltese £1 = £1 sterling.

The income and expenditure statements show revenue from commissions, so the currency board charged a commission fee. The 1949 ordinance allowed a maximum fee of 0.5%. In 1968 the successor to the currency board, the Central Bank of Malta, charged a fee of 0.125% on purchases and sales of Maltese pounds for pounds sterling (IMF 1969: 311). We suspect that the commission fee was the same as that of the currency board had been. We have found no information on the minimum size of transactions.

Like the United Kingdom at the time, Malta used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). Malta in fact used British coins and issued no local coins during its currency board period.

The currency board issued notes of 1 shilling (£0.05) to £5. It did not issue coins; Malta used British coins during the existence of the Board of Commissioners of Currency.

Financial year; sources of data

The financial year ran from 1 April to 31 March.

Our source of information is the *Malta Government Gazette*. The annual report of the Treasurer contains limited balance sheet information. Detailed semiannual information starts from September 1949. We are missing statements for March 1959, September 1959, March 1960, and March 1968. Before 1949 some quarterly statements of the government budget may contain figures on the note issue, but we have only seen one, for June 1947.

The International Monetary Fund’s *International Financial Statistics* database does not cover the balance sheet of the monetary authority during the period of the currency board.

Remarks on the balance sheet

The balance sheet account was called the Note Security Fund.

Remarks on the income and expenditure statement

The income and expenditure account was called the Currency Note Income Account. Limited income and expenditure data are available in the annual report of the Treasurer up to 1949. From 1950 onward, more detailed data are available in the statements of the Board of Commissioners of Currency.

Remarks on other accounts and data

None.

Deviations from orthodoxy

The currency board held Maltese government securities by 1961, and perhaps earlier (we are missing statements from 1959 and 1960, as noted above). At the end of its life, when the assets of the Note Security Fund were passed to the Central Bank of Malta, Maltese government securities amount to less than 2% of the board’s total assets.

Other remarks

Yuxuan (Lily) Zhu digitized the data as part of work for a term paper.

Here is a brief discussion of Malta’s World War I note issue. Malta had been using British currency. The war both interrupted shipments of currency and increased demand for currency. Malta,

Ordinance No. 8, 12 August 1914, permitted the Maltese government to issued notes as an emergency measure. Sammut (2001: 161) offers a quotation suggestion that the notes were backed 100% by external assets. The government issued notes in denominations from 5 shillings to £10, equal to their sterling counterparts. Notes up to 10 shillings were redeemable in silver, while notes of higher denominations were redeemable in gold (Malta, Government Notice No. 149, 15 August 1914; No. 162, 25 August 1914; No. 183, 8 September 1914; No. 194, 17 September 1914; No. 209, 29 September 1914; No. 229, 19 October 1914). British notes continued to circulate. Malta, Ordinance No. 5, 10 June 1915, allowed notes of 10 shillings and £1 issued by the British Treasury to be legal tender; previously, only Bank of England notes, whose smallest denominations was £5, had been legal tender. The notes were made legal tender by a governor's proclamation of 16 June 1914. Ordinance No. 5 also permitted the governor to call in Maltese government notes for cancellation and redemption. Malta, Government Notice No. 110, 6 May 1915, stripped Maltese £1 notes of legal tender effective the following day. Malta, Government Notice No. 204, 23 September 1915, stripped other Maltese notes of legal tender effective 30 September 1915. Notes could continue to be redeemed at the government treasury (Malta, Government Notice No. 270, 25 November 1915). The total amount of Maltese notes in circulation never rose as high as £100,000, and by 22 June 1915 it had fallen to £1,533, according to the government treasurer (Malta, "Report of the Treasurer for 1915-15," *Malta Government Gazette*, Supplement No. 19, 17 September 1915: 121).

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- IMF. 1969. International Monetary Fund. *Annual Report on Exchange Restrictions*. Washington, D.C.: International Monetary Fund.
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Spreadsheets

Under construction.

Mauritius

Name, headquarters, dates, membership

Board of the Commissioners of Currency, later Mauritius Currency Board, headquarters Port Louis, Mauritius, 1 September 1849 to 13 August 1967.

The currency board replaced competitive note issue (free banking) by three commercial banks. (The government also issue small-denomination notes as substitutes for coins.) One of the banks, the Mauritius Bank, failed in 1848. The currency board, established under Ordinance No. 6 of 1849, was intended to provide a more secure note issue. The Bank of Mauritius, a central bank, opened on 14 August 1967 to succeed the Mauritius Currency Board (Mauritius annual report 1967: 32). The rationale establishing a central bank was to provide the government with the power to manage the currency (Mauritius annual report 1966: 33; Bank of Mauritius 1968: 1). The impending independence of Mauritius in 1968 seems to have influenced this sentiment.

Legislation

- Mauritius, Ordinance No. 7 of 1848, cited in [Chalmers? Nelson PhD dissertation?]; Ordinance No. 6, 28 August 1849, cited in [source to come]; Ordinance No. 9 of 1849: [We have not seen these].
- Mauritius, Currency Act, Ordinance No. 28 of 1876: A revised currency ordinance.
- Mauritius, Ordinance No. [??] of 1898: Allowed the governor to issue a proclamation suspending redemption of notes in specie.
- Mauritius, Proclamation No. 8, 8 February 1898: Temporarily suspended the provisions of the Currency Act requiring payment in specie. A government notice, however, stated that the government would try to meet the needs of small transactors for specie for purposes of change and was prepared to deal through the banks to meet the requirements of larger transactors, by issuing drafts on London or Bombay in exchange for currency notes (Mauritius annual report 1898: 14).
- Mauritius, Proclamation No. 10, 5 March 1899: Revoked Proclamation No. 8 of 1898.
- Mauritius, ordinance of 29 March 1934: Eliminated some unorthodox elements of the previous currency board-like system, and switched from the Indian rupee to the pound sterling as the anchor currency.
- 1942 ordinances: Details to come.
- Mauritius Currency Ordinance, No. 39 of 1962: The monetary authority gained a certain capacity to hold domestic assets.
- Mauritius, Bank of Mauritius Ordinance, 28 September 1966: Established the Bank of Mauritius, a central bank, to replace the Mauritius Currency Board.

Exchange rate and currency system

During the existence of its currency board, Mauritius changed both its unit of account and its anchor currency, reflecting that in trade and finance it was pulled between the United Kingdom and India.

- 1 September 1849 to 31 December 1876: Mauritius \$5 = £1 sterling. This exchange rate had existed since 1826. The dollar was the local version of the Spanish silver peso, also known as the silver dollar or piece of eight. Notes listed values both in dollars and in sterling (Mauritius annual report 1863: 100). The dollar was a decimal currency, divided into 100 cents, while the pound sterling was a nondecimal currency, in which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny). As of 1867, the accounts of the government were kept in sterling, but bankers and merchants used dollars and cents, and shopkeepers frequently priced their goods in livres and sous, units of account left over from the period of French rule that had ended in 1810 (Mauritius annual report 1867: 27). [The

commissioners apparently issued some rupee-denominated notes, concerning which we need details.]

- 1 January 1877 to 22 August 1934: 1 Mauritian rupee = 1 Indian rupee. Mauritius adhered to the Indian rupee, reflecting the importance of trade with India (Mauritius, Order in Council and Proclamation of 12 August 1876; governor's proclamation of 25 November 1876; Ordinance No. 28, 25 November 1876, all cited in Chalmers 1893: 368). The exchange rate between old and new currency was 2 Mauritian rupees = Mauritius \$1. The Mauritian rupee was a decimal currency, divided into 100 cents, whereas the Indian rupee at the time was nondecimal.
- 23 August 1934 to 13 August 1967: 13-1/3 Mauritian rupees = £1 sterling, or 1 Mauritian rupee = 1 shilling 6 pence (18 pence) sterling (Mauritius, ordinance of 29 March 1934). This exchange rate was such that the official cross rate was 1 Mauritian rupee = 1 Indian rupee. The market exchange rate when the new official rate began was approximately 13.70 Indian rupees = £1 sterling, or 1 rupee = 17.5 pence. To prevent a sudden fluctuation in the market rate, the currency board was allowed to charge a wide margin of +/-1.75% around the central rate. Initially the board's selling rate was 13.57 Mauritian rupees = £1 sterling and the minimum amount for exchange was £5,000. The board charged ¼% (0.25%) commission when buying sterling (Mauritius annual report 1934: 33; 1938: 60-61). Over time the currency board's margin fell to +/-0.5% (Mauritius Commercial Bank 1963: 2). [When does the annual report cease mentioning the commission fee? We assume it was at the time either reduced or eliminated.]

During its existence, the currency board issued coins of 1 Mauritius cent to 50 cents. The board issued notes of Mauritius \$2.50 (10 shillings) to \$25 (£5) in dollars and sterling, and later, after the Mauritian rupee became the unit of account, emergency notes of 25 and 50 Mauritian cents during World War II; regular notes of 1 to 50 Mauritian rupees; and, from November 1937, notes of 1,000 rupees for use among banks and between banks and the government treasury (Mauritius, proclamation of 8 October 1860; Mauritius annual report 1921:7; 1936: 37).

The British government had authorized coins for Mauritius in the 1820s, but since no local coins were minted for a long time afterwards, Mauritians used foreign coins extensively. British coins predominated from about 1851 until the early 1860s as a result of the depreciation of gold against silver; Indian coins came back in early 1860s as gold appreciated. In 1877 Mauritius got its first local issue of coins in many years, coinciding with the transition from the Mauritius dollar to the Mauritius rupee as the unit of account. These coins were ordinarily not redeemable. Indian silver rupee coins and silver subdivisions of the rupee were legal tender until 1934[?] (Mauritius annual report 1921: 7; 1934: 33). Indian government notes, denominated of course in Indian rupees, were also legal tender, through 31 December 1938 (Mauritius, Notice No. 39, 26 November 1938).

Government notes issued before the currency board was established remained in circulation for some years, apparently backed by general assets (Mauritius annual report 1863: 103).

For decades Mauritians retained customary expressions for certain currency units, reflecting coins that had long since ceased circulation, such as cache, 2 cents; marqué or sou marqué, 3 cents; franc, 20 cents; livre, 20 cents; and piastre, 2 rupees (Mauritius annual report 1928: 7).

Financial year; sources of data

The financial year was the calendar year before 1901. In 1901 the calendar year was changed to July 1 to June 30. The first six months of 1901 became a transitional financial period (Mauritius annual report 1901: 5).

We have copies of the relevant sections of all Mauritius colonial annual reports published from 1850 to 1967, except 1962 and 1965. Colonial annual reports contained some annual data. The first mention of the Commissioners of Currency in the colonial annual report is in 1857 (Mauritius annual report 1857: 161). Not all years of the colonial annual report show data on the Commissioners of Currency. For instance, notes in circulation are only listed irregularly until 1877.

Higher-frequency data than the annual data we collected may exist in the government gazette, which have not yet searched systematically, given that holdings of the gazette are sparse in the libraries we have so far consulted. Ordinance No. 10 of 1864 specified that the Board of the Commissioners of Currency was to publish a monthly statement showing its notes in circulation and reserves.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet of the monetary authority during the period of the currency board.

Remarks on the balance sheet

The 1896 colonial annual report is the first that shows a balance sheet, rather than just single-line summaries of assets, liabilities, and net worth (Mauritius annual report 1896: 8). Subsequent years often just contained a summary rather than a balance sheet. From the 1896 balance sheet it is evident that the Commissioners did not have liability for coins at the time.

Initially, coins were a liability of the government, not of the Commissioners. It is unclear to us when the Commissioners assumed liability for coins.

Figures for note circulation in the colonial annual reports are often annual averages, not end of period figures.

Remarks on the balance sheet

None. The colonial annual reports provide little balance sheet information.

Remarks on the income and expenditure statement

None. The colonial annual reports provide no[?] information on income and expenditures.

Remarks on other accounts and data

The 1931 colonial annual report is the first to list the deposits of the commercial banks (Mauritius annual report 1931: 29). Colonial annual reports starting in 1952 show tables for the combined balance sheets of local banks rather than just mentioning some balance sheet items in the text (Mauritius annual report 1952: 33).

Deviations from orthodoxy

In its early years, the Board of the Commissioners of Currency held domestic assets. For example, article 10 of Ordinance No. 10 of 1864 allowed the Commissioners to invest up to half of a sum equal to notes in circulation “in securities of the Imperial Government or in Debentures of the Mauritius Government”; the rest was to be held in coin, meaning gold or silver legal tender coins. Ordinance No. 19 of 1865 makes it clear that the Commissioners held at least £77,000 in securities the government of Mauritius had issued to finance a railway.

1898: During a financial panic, the government allowed the Commissioners to cease redemption in specie. The Commissioners lent the government 1.12 million rupees. The government then lent the funds to the Commercial Bank of Mauritius on the security of rupees in transit to Mauritius shipped from Bombay on the order of the Mauritius Receiver-General in March, May, and June 1898. The Commissioners separately lend the government 1.25 million rupees in notes, which the government used to lend to sugar planters with their mortgages as security. The loans were denominated in sterling, had an interest rate of 8%, were based on the Indian rupee-sterling exchange rate at the time they were made. They were due by 30 April 1899 and were fully repaid. The government made a profit of 5,928 rupees on the loan to the Commercial Bank of Mauritius and a profit of more than 20,000 rupees on the loans to sugar planters (Mauritius annual report 1898: 14-15).

1908: During a period of worldwide financial turmoil, on 3 February 1908 the Mauritius Commercial Bank asked the government for a loan. The government authorized the Commissioners of Currency to make the loan. The Commissioners lent 1 million rupees to the bank, secured by 1.5 million rupees in “dock warrants” (warehouse receipts for goods tendered as security for the bank's loans to

merchants). The loan paid 10% interest; was issued on 4 February 1908; and was repaid by 14 May 1908, yielding interest of 20,493 rupees to the government (Mauritius annual report 1908: 46).

Other remarks

We thank Andrew Rosenberg for digitizing data from the colonial annual report.

1837: A Savings Bank was founded, well before Mauritius established a currency board (Mauritius annual report 1857: 161).

1843: Ordinance No. 10 of 1843 prohibited the unauthorized issue of notes that were nominally payable at distant dates like bills of exchange (post notes), but in reality intended to circulate at par. The notes were being issued in sums as low as 2 shillings. The ordinance specifically required that the Agricultural Bank (Caisse de l'Agriculture) and the Special Finance Committee (Comité Special de Finance) withdraw their notes from circulation.

1848: Mauritius passed Ordinance No. 7 of 1848, to establish a government paper currency, but it lapsed after three years for lack of approval by the British government. [Does that mean it was ever effective? The statute book implies that it was.]

1849: Ordinance No. 6 of 1849 established the Board of the Commissioners of Currency, but it failed to gain the approval of the British government and therefore lapsed after three years, as did later ordinances until 1864, so the Board was continued by a series of temporary ordinances, namely, Ordinance No. 28 of 1852; Ordinance No. 13 of 1855; Ordinance No. 16 of 1858; Ordinance No. 10 of 1859; Ordinance No. 42 of 1860; and Ordinance No. 7 of 1861; and Ordinance No. 7 of 1863. The colonial annual report attributes the temporary nature of the earlier ordinances to "difficulties regarding the reserve of specie and the investment of the remainder" (Mauritius annual report 1864: 146).

1859: "The continued delay in completing the arrangements for a new paper currency in the Colony necessitated the passing of Ordinance No. X of 1859, for continuing the operation of Ordinance No. XIII of 1855, under which the present government notes are in circulation." (Mauritius annual report 1859: 97).

1860: "The currency question has been very satisfactorily settled, and nearly all the old fractional notes, which were the source of so much difficulty and complaint, have been withdrawn from circulation, and replaced by new ones of even denomination." (Mauritius annual report 1860: 126).

1861: Ordinance No. 7 of 1861 restated almost verbatim the 1849 ordinance establishing the currency board. Old rupee-denominated notes of 5 rupees were really only worth 18 shillings 4 pence instead of 20 shillings because of the depreciation of the silver rupee (Mauritius annual report 1861: 100). It is unclear from the report how old the notes were; we assume that they were old government notes.

1863: A fraud was perpetrated by the manager of the Savings Bank and discovered in 1863; it did not shake the confidence of depositors (Mauritius annual report 1863: 100; 1864: 143).

1864: The government consolidated legal enactments on paper currency under Ordinance No. 10 of 1864, confirmed by a proclamation of 29 September 1864 (see also Mauritius annual report 1864: 141).

1886: The colonial annual report shows currency notes in circulation from the issues of 1849, 1860, and 1876. The 1876 issue is subdivided into currency in the banks and in the hands of the public (Mauritius annual report 1886: 129). The 1848 and 1849 issues were denominated in dollars and cents. The issue of 1860 is listed as being sterling. The 1876 issue was in rupees (Mauritius annual report 1903: 8).

1897: A financial crisis occurred because of a poor sugar harvest and Indian banks reducing loans because of a financial stringency there. The government adopted emergency measures, including issuing government drafts on Bombay (in effect selling foreign exchange to the private sector nearer the parity rate when the premium charged by banks was apparently 5%, if this is what is meant by their "drawing rate"); temporarily suspending the redemption of notes in specie; making a government loan to the Commercial Bank of Mauritius; and making a government loan to sugar planters (Ordinance No. 2 of 1898). A bumper sugar crop at the next harvest enabled the colony to rebound financially, and by late 1898 the financial stringency was past (Mauritius annual report 1897: 3-4, 14-15).

1898: A suspension of payment in silver Indian rupees was enacted on 8 February (Mauritius annual report 1898: 14).

1899: The suspension of payment in silver Indian rupees enacted in 1898 was revoked by Proclamation No. 10, 5 March 1899 (Mauritius annual report 1898: 4, 15).

1902: The government lent to the sugar industry to prevent a financial crisis that would have arisen from unusually dry weather and a poor harvest (Mauritius annual report 1902: 93-94).

1907-1908: During the financial panic that spread from New York elsewhere, two “brokers” (we assume this means sugar financing firms) failed in Mauritius and one bank raised its discount rate as high as 12%, reflecting conditions in the Indian money market, while the other bank curtailed its lending (Mauritius annual report 1908: 6). On 3 February 1908 the Mauritius Commercial Bank asked the government for a loan. The government authorized the Commissioners of Currency to make the loan. The Commissioners lent 1 million rupees to the bank, secured by 1.5 million rupees in “dock warrants” (warehouse receipts for goods tendered as security for the bank’s loans to merchants). The loan paid 10% interest; was issued on 4 February 1908; and was repaid by 14 May 1908, yielding interest of 20,493 rupees to the government (Mauritius annual report 1908: 46).

1929: This is the last year in which the colonial annual report mentions Indian notes in circulation, suggesting that they were not much seen anymore (Mauritius annual report 1929: 7).

1932: It was estimated that 1 million rupees of notes had been destroyed by fire, floods, and other losses (Mauritius annual report 1932: 38)

1933: [Chapter 16 of the 1933 annual report supposedly discusses important changes to the currency system. We currently lack those pages.]

1934: An ordinance of March 1934 revised the currency board law. As well as changing the anchor currency from the Indian rupee to the pound sterling, it seems that this law for the first time established a reserve ratio of 110% for the Note Security Fund, versus 100% before. The minimum transaction size for exchanging currency with the currency board was £5,000 (Mauritius annual report 1934: 33). An ordinance of September 1934 introduced subsidiary silver coins, which were not normally redeemable, but the seigniorage from the coins was invested like that from notes (Mauritius annual report 1934: 34).

1936: “Local commercial practice is such that the effective rate of exchange is the rate at which the banks sell sterling and not the mean between the buying and selling rates” (Mauritius annual report 1936: 37).

1946: First mention in the colonial annual report of the specific amount of the Coin Security Fund (1946: 56). It is still unclear whether coins were a government or currency board liability by this time.

1955: Proclamation No. 11 of 14 June 1955 demonetized notes issued before 15 October 1954, effective 1 August 1955 (Mauritius annual report 1955: 28).

1955: The exchange rates commercial banks offered, in Mauritian rupees per pound sterling (the anchor currency), were as follows: for amounts under £5,000, 13.25 rupees buying, 13.43 selling; for £5,000 pounds and over, 13.26 rupees buying, and 13.40 selling (Mauritius annual report 1955: 33).

1964: The government established the Development Bank of Mauritius on 1 March 1964 by Ordinance No. 34 of 1963. It incorporated the business of the Mauritius Agricultural Bank established in 1936 (Mauritius annual report 1964: 34).

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- Bank of Mauritius. 1968. *Annual Report for the Year Ended June 1968*. Port Louis: Bank of Mauritius. [We have not yet seen this, which may have useful data from the end of the currency board period.]
- Chalmers, [Sir] Robert. 1893. *A History of Currency in the British Colonies*. London: Eyre and Spottiswoode for Her Majesty's Stationery Office.
- Mauritius. Annual report. 1850-1967. Great Britain (United Kingdom). Colonial Office, *The Reports Made for the Year ... to the Secretary of State for the Colonies; in Continuation of the Reports Annually Made by the Governors of the British Colonies, with a View to Exhibit Generally the Past and Present State of Her Majesty's Colonial Possessions; Transmitted with the Blue Books for the*

Year 1850 (1850); Colonial Office, *The Reports Made for the Year ... to the Secretary of State Having the Department of the Colonies; in Continuation of the Reports Annually Made by the Governors of the British Colonies, with a View to Exhibit Generally the Past and Present State of Her Majesty's Colonial Possessions; Transmitted with the Blue Books for the Year ...* (1851-1863; 1860 has the subtitle "Part I.—West Indies, Mauritius, and Ceylon"; 1861-1865 have the subtitle "Part I.—West Indies and Mauritius"; some years also include Seychelles); Colonial Office, *Reports Showing the Present State of Her Majesty's Colonial Possessions; Transmitted with the Blue Books for the Year* (1864-1872; subtitle "Part I.—West Indies and Mauritius" from 1864-1865; "Part III. Eastern Colonies" from 1866-1869; "Part II.—Eastern Colonies" from 1870-[1871 and 1872 missing]); Colonial Office, *Papers Relating to Her Majesty's Colonial Possessions: Reports for ...* (1873-1884; Mauritius appears in Part II in 1873 and Part I from 1874-1875; there is no part number from 1876-1884; some reports for Mauritius also include Seychelles and Rodrigues and have them in the titles); Colonial Office, *Papers Relating to Her Majesty's Colonial Possessions: Reports for 1884, 1885, and 1886* (1885); Colonial Office, *Reports on Blue Books for 1886. No. 1. Virgin Islands. No. 2. Mauritius, Seychelles, and Rodrigues. No. 3. Gambia* (1886); Colonial Office, *No. 36. Mauritius, Seychelles, and Rodrigues: Reports on the Blue Books for ...* (1887-1888); Colonial Office, *Mauritius: Annual Report for ...* (1889); Colonial Office, *Mauritius (Seychelles and Rodrigues): Annual Reports for 1889 & 1890 with a Report on the Island of Aldabra* (1889-1890); Colonial Office, *Mauritius: Annual Report for ...* ([missing 1890? and 1891] 1892-1899; 1895 report also contains *Rodrigues: Annual Reports for 1894 and 1895*); Colonial Office, *Mauritius and Rodrigues: Report for 1900* (1900); *Mauritius: Report for ...* (1901-1930); Colonial Office, *Annual Report on the Social and Economic Progress of the People of Mauritius* (1931-1938); not published 1939-1946 because of World War II; Colonial Office, *Annual Report on Mauritius for the Year ...* (1947-1950), Colonial Office, *Report on Mauritius for the Year ...* (1951-1958); Colonial Office, *Mauritius: Report for the Year ...* (1959-1965); Commonwealth Office, *Annual Report on Mauritius for the Year ...* (1966-1967). London: His / Her Majesty's Stationery Office. (This series was called Colonial Reports until World War II Colonial Annual Reports afterwards; it was suspended during the war for most colonies.) (In the postwar reports we are missing 1962 and 1965.)

[There was also a Mauritius Blue Book printed in Mauritius. Google Books has some copies. We need to check WorldCat for other available copies. Additionally, this paper may be of use:

<http://www.lemauricien.com/article/historical-perspective-exchange-rate-regimes-rupee-part-ii>]

Spreadsheets

Annual done for now (remaining data hard to find in USA); high-frequency data under investigation.

New Hebrides (now Vanuatu)

Name, headquarters, dates, membership

This page is a placeholder for a possible case that needs further investigation, perhaps with documentation only available in Paris.

Legislation

To come.

Exchange rate and currency system

To come.

Financial year; sources of data

The International Monetary Fund's *International Financial Statistics* database does not cover Vanuatu (then called the New Hebrides) during the period of the currency board.

Remarks on the balance sheet

To come.

Remarks on the income and expenditure statement

To come.

Remarks on other accounts and data

To come.

Deviations from orthodoxy

To come.

Other remarks

To come.

References

TO COME

Spreadsheets

Under investigation.

New Zealand

Name, headquarters, dates, membership

Colonial Bank of Issue, headquarters Auckland, New Zealand, 3 June 1850-30 September[?] 1856.

New Zealand's British colonial governor was a follower of the British Currency School of monetary thinkers, which originated the currency board concept. Under his leadership, New Zealand replaced its previous system of competitive note issue by commercial banks with a currency board. After the British government granted New Zealand a popularly elected legislature, one of the legislature's first acts was to allow banks to issue notes. The legislature retired the currency board note issue to give greater encouragement to the spread of commercial banks.

Legislation

- New Zealand, Paper Currency Ordinance (Act), 11 Victoria no. 16, 16 October 1847: Established the Colonial Bank of Issue.
- New Zealand, governor's proclamation of 12 April 1850: Brought the Paper Currency Ordinance into effect.
- New Zealand, An Ordinance to Amend the "Paper Currency Ordinance," No. 14, 31 July 1851: Required the only note-issuing bank left at the time, the Union Bank of Australia, to withdraw its notes from circulation by 1 October 1851, and prohibited issuance of notes by parties other than the government.
- New Zealand, Bank Paper Currency Act of 1856 and Colonial Bank of Issue Winding-Up Act, 1856: Replaced the Colonial Bank of Issue with free banking.

Exchange rate and currency system

New Zealand £1 = £1 sterling.

We have yet to find information on the commission fee and minimum exchange size.

Like the United Kingdom at the time, Bermuda used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated "s.") = 240 pence (or pennies, abbreviated "d." from the Latin *denarius*, an ancestor of the penny). Notes issued. Did New Zealand issue any of its own coins at the time or just use UK coins?

Financial year; sources of data

Financial year.

Gazette—multiple ones

The International Monetary Fund's *International Financial Statistics* database does not cover New Zealand during the period of the currency board.

Remarks on the balance sheet

To come; we have not yet really reached the data heavily.

Remarks on the income and expenditure statement

To come.

Remarks on other accounts and data

To come.

Deviations from orthodoxy

Apparently none.

Other remarks

We thank Sir Roger Douglas for extensive help with gathering the financial statements of the Colonial Bank of Issue.

Chalmers (1893: 289) remarks that in Auckland the public generally preferred gold coins to notes, possibly from antagonism toward the government for displacing bank-issued notes; in Wellington, where the currency board also had an office, the public was more willing to use notes.

References

Bedford, Harry Dodgshun. 1916. "The History and Practice of Banking in New Zealand." Doctor of Letters thesis, University of Otago (University of New Zealand). <http://hdl.handle.net/10523/4539>, viewed 21 December 2104.

Chalmers, [Sir] Robert. 1893. *A History of Currency in the British Colonies*. London: Eyre and Spottiswoode for Her Majesty's Stationery Office.

New Zealand. Gazette. 1856-present. *New Zealand Gazette* (Maori title *Te Kahiti o Aotearoa*). Auckland, later Wellington: Government Printer. [Also perhaps the New Ulster and other gazettes.]

Spreadsheets

Under construction.

North Borneo (British North Borneo; now Sabah, part of Malaysia)

Name, headquarters, dates, membership

This entry is a placeholder. We have so far done little research on this case and are uncertain whether it was a currency board episode because of lack of data. We will search old colonial reports and Administration Reports of the British North Borneo Company, also known as the British North Borneo Chartered Company. These publications should be available in London or Singapore if not readily in the United States.

- Government of North Borneo, headquarters Sandakan, British North Borneo, 21 March 1886 to 14 March 1921. Notes were issued by the government treasury, which issued them for the convenience of planters and traders, there being no bank in the territory at the time (Treacher 1891: 117). The date on the first notes is 21 March 1886, but the notes may actually have first entered circulation on a different date.
- State Bank of North Borneo, headquarters Sandakan, British North Borneo, 15 March 1921 to 22 February 1942. The government established a State Bank (*Straits Times* [Singapore], 30 March 1921: 10). We assume that note issue was transferred to it from the start of its existence.

British North Borneo's independent currency board episode ended when Japanese occupation forces began issuing a currency starting on 23 February 1942. During the rest of the war the notes were hoarded. Upon liberation, the British military administration declared Japanese occupation currency to be worthless. The British colonial report describes the system after liberation as follows:

“Before the Japanese occupation the Chartered Company issued their own notes and coins. On liberation, the British Military Administration introduced Malayan currency throughout the three Borneo territories. Chartered Company notes and coins remain legal tender but, when handed to Banks or Treasuries, are not re-issued but redeemed at their face value by Malayan currency. Little of the Charter Company currency remains in circulation and the normal medium of exchange is the Malayan dollar valued at 2s. 4d. The buying and selling rates [against sterling] fluctuate slightly in accordance with the Singapore market. It is estimated that in 1947 about \$7,000,000 Malayan currency was in circulation in North Borneo.” (North Borneo annual report 1947: 14).

Because the postwar margin of increased demand for notes and coins was met entirely by Malayan currency, not by North Borneo currency, we classify North Borneo's independent currency board as having ended in 1942. On 1 January 1952 North Borneo joined the Board of Commissioners of Currency, Malaya and British Borneo.

Legislation

- [Unclear whether this was a currency board]

Exchange rate and currency system

The exchange rates were as follows:

- 21 March 1886 to 1 January? 1914: probably North Borneo \$1 = 1 Mexican silver peso (Mexican dollar), but it is also possible that the North Borneo dollar was always equal to the Straits Settlements dollar. Need to find laws or mention of laws in annual report if there are any. A description of 1891 says, “The silver currency is the Mexican and Spanish Dollar and the Japanese Yen, supplemented by the small silver coinage of the Straits Settlements. The Company has not yet minted any silver coinage, as the profit thereon is small” (Treacher 1891: 116). We infer that the British North Borneo dollar was equal to the Straits Settlements dollar.
- 2 January? 1914 to 30 September 1938: North Borneo \$1 = Straits \$1. British North Borneo, Ordinance No. 3, 2 January 1914 (cited in Pennington 1931: 3) officially established this rate. At the time, Straits \$1 = 2 shillings 4 pence sterling = £0.11-2/3 sterling.

- 1 October 1938 to 22 February 1942: North Borneo \$1 = Malayan \$1. The Malayan dollar replaced the Straits dollar when the currency union between the Straits Settlements and Malaya came into existence, at Malayan \$1 = Straits \$1.

We found no information about commission fees the currency board charged, but we suspect that they existed because they were common at the time. We likewise found no information about the minimum exchange size.

The Borneo dollar was a decimal currency. The government issued coins of ½ cent to 25 cents, which seem to have been liabilities of the government generally rather than any currency board specifically (see Treacher 1891: 116). The denominations of notes were 25 cents to Borneo \$25. We infer that Straits Settlements coins, later succeeded by Malayan coins, were legal tender in British North Borneo (King 1957: 15).

Financial year; sources of data

Uncertain; same as the Straits Settlements?

High-frequency data may exist in the government gazette, which we did not search.

The International Monetary Fund's *International Financial Statistics* database does not cover North Borneo during the period of the currency board.

Remarks on the balance sheet

None. The colonial annual reports provide little balance sheet information.

Remarks on the income and expenditure statement

None. The colonial annual reports provide no[?] information on income and expenditures.

Remarks on other accounts and data

None.

Deviations from orthodoxy

As mentioned above, because of a scarcity of data, we are uncertain whether the system was a currency board. A book by the first governor of British North Borneo in 1891 remarked that “in the absence of a bank, the Treasury, for the convenience of traders and planters, carries on banking business to a certain extent, and issues bank notes of the values of \$1, \$5 and \$25, cash reserves equal to one-third of the value of the notes in circulation being maintained” (Treacher 1891: 117). It is unclear from this account whether the Treasury also held a reserve in foreign securities equal to two-thirds of the value of the notes in circulation, in which case it would have been a currency board, or whether it held no other reserves. We have found no further information on the subject so far.

Other remarks

1891: There were no banks in the colony, although banks with branches at Singapore had agencies at Sandakan (Treacher 1891: 117).

1921: The State Bank of British North Borneo opened on 15 March 1921. It had its headquarters in Sandakan and a branch in Jesselton (now Kota Kinabalu) (*Straits Times* [Singapore], 30 March 1921: 10).

1942?: British North Borneo Chartered Company notes and coins were issued during the Japanese occupation (North Borneo annual report 1949: 21). Apparently this was unissued currency that was in the vaults of the State Bank that the Japanese occupation authorities seized.

1947: “Before the Japanese occupation the Chartered Company issued their own notes and coins. On liberation, the British Military Administration introduced Malayan currency throughout the three Borneo territories. Chartered Company notes and coins remain legal tender but, when handed to Banks or Treasuries, are not re-issued but redeemed at their face value by Malayan currency. Little of the Charter

Company currency remains in circulation and the normal medium of exchange is the Malayan dollar valued at 2s. 4d. The buying and selling rates [against sterling] fluctuate slightly in accordance with the Singapore market. It is estimated that in 1947 about \$7,000,000 Malayan currency was in circulation in North Borneo.” (North Borneo annual report 1947: 14).

1947: The State Bank of North Borneo ceased business about June because of North Borneo’s change of status from a protectorate governed by the British North Borneo Company to a British colony (*Straits Times* [Singapore], 2 June 1947: 7). The change had occurred in June 1946.

1953: Notes of the Board of Commissioners of Currency, Malaya and British Borneo, dated not earlier than 1 July 1941, became legal tender. The notes were of denominations of 1 cent to Malayan \$10,000. British North Borneo Chartered Company notes ceased to be legal tender from 1 September 1953, but remained redeemable for their face value in Malayan currency when deposited at banks or treasuries (North Borneo annual report 1953: 36).

References

King, Frank H[enry] H[aviland]. 1957. *Money in British East Asia*. London: Her Majesty’s Stationery Office.

Pennington, James A. G. 1931. “Metal and Paper Currencies of Australia, New Zealand, East Indies, and Pacific Islands.” Specialities Division, Bureau of Foreign and Domestic Commerce, United States Department of Commerce. Washington: mimeograph.

Treacher, W[illiam] H[oed]. 1891. *British Borneo: Sketches of Brunai [sic], Sarawak, Labuan, and North Borneo*. Singapore: Government Printer. (Treacher was the first governor of British North Borneo.)

[We may later have reference to some of these publications:

North Borneo (1947-1951). London: HMSO.

Colony of North Borneo Annual Report, (1952-1962). [Jesselton,] North Borneo: Government Printing Department. [Also issued as Colonial Report. North Borneo, London: HMSO.]

Also possibly relevant:

British North Borneo: Report

Handbook of North Borneo

Handbook of the State of British North Borneo

Handbook of the State of North Borneo

British North Borneo. Governor. Administration Report. [Library of Congress has]

British North Borneo Company. Report of the ... half-yearly meeting of the British North Borneo [sic] company [HC448.B7 B75](#)

[LOC Law Library has British North Borneo. Ordinances and Rules.](#)

Historical Dictionary of Malaysia if there are bibliographical references to annual reports by the governments of North Borneo and Sarawak referenced there.

Historical Dictionary of Brunei Darussalam.

Book by Shaw and Ali Haji on Malaysian currency]

Spreadsheets

Under investigation.

North Russia (now Archangel-Murmansk region of Russia)

Name, headquarters, dates, membership

National Emission Caisse (North Russia), headquarters Archangel (Arkhangelsk), Russia, 28 November 1918 to 4 October 1919.

To prevent German troops in Finland or Bolshevik troops from seizing supplies that the World War I Allies had been shipping to the czarist government, and later to the democratic Kerensky government, via Archangel and Murmansk, Allied troops landed in Russia's major northern ports, Murmansk and Archangel, in March 1918. They were ordered to take the side of local White Guard (anti-Bolshevik) forces. The small initial contingent grew into a 10,000-strong expeditionary force as the Allies became embroiled in the Russian civil war. The force needed currency to pay for local supplies and to pay wages to dockworkers unloading the ships bringing supplies from afar to the troops. The outbreak of the civil war had resulted in the issuance of a hodgepodge of unreliable currencies by a variety of parties. John Maynard Keynes, who was at the time a British Treasury official responsible for war finance, conceived the idea of a local currency board. The British government provided the initial foreign reserves for the Emission Caisse, buying 100 million rubles of its notes, and the Emission Caisse's chairman was a British banker approved by the British and North Russian governments. Because of the domestic political unpopularity of Allied intervention in Russia, Allied troops began withdrawing from North Russia in mid 1919 and by 27 September 1919 they had withdrawn completely. Without Allied support, the survival of the North Russian government against military attack by the Bolsheviks was doubtful. The Emission Caisse closed in Archangel on 4 October 1919. It continued to redeem notes in London until 30 April 1920. The Bolsheviks entered Archangel on 21 February 1920, ending the existence of North Russia as an independent political unit with a distinct currency.

Legislation

- Fundamental Principles of the Currency Reform in the Northern Region Approved by the Financial and Economic Council Attached to the Provisional Government of the Northern Region, 9 October 1918: Established the National Emission Caisse (North Russia).

Exchange rate and currency system

The exchange rate throughout the life of the National Emission Caisse was 40 North Russian rubles = £1 sterling.

There seems to have been a commission fee of 1%. Most sales of North Russian rubles were against sterling, but the Emission Caisse also accepted U.S. dollars and French francs at their market rates against sterling, because the Allied troops included British, French, and American soldiers.

The North Russian ruble was a decimal currency, divided into 100 kopecks. The National Emission Caisse issued notes of 10 kopecks to 10,000 North Russian rubles. Coins, if they were still in use locally by this time, would have been those issued by the old czarist government.

When Emission Caisse rubles were introduced, British military authorities, who still needed old rubles for some purposes, set an exchange rate of 48 old rubles per 40 Emission Caisse rubles (= £1 sterling) in April 1919. The rate depreciated to 80 old rubles per 40 new rubles by late June 1919.

Financial year; sources of data

The financial year of the National Emission Caisse was apparently the calendar year. Our only source of data is fragmentary monthly statistics from unpublished British Foreign Office dispatches. Further data likely exist in the North Russia government gazette, which we did not search. There was also a publication called the *The G.A.F.: Gazette of the Archangel Force*, published weekly by the British Archangel Expeditionary Force, that may have some information. We have not searched it either. We may do so later; it is at the LOC and may even be available online from HathiTrust. British archives are another possibility.

The International Monetary Fund's *International Financial Statistics* database does not cover North Russia.

Remarks on the balance sheet

We have seen no published balance sheet data, although data may exist in the government gazette, which we have not seen.

Remarks on the income and expenditure statement

During its only year of existence, the National Emission Caisse earned revenues of about 5 million North Russian rubles and incurred costs of about 8.4 million North Russian rubles. Accordingly, it lost money because of the expenses of printing an initial batch of notes and establishing an office. Had it continued to exist, those costs would have been lower in subsequent years, allowing the Emission Caisse to earn profits. We have seen no published income and expenditure data, although data may exist in the government gazette, which we have not seen.

Remarks on other accounts and data

None.

Deviations from orthodoxy

To allow the North Russian government to benefit immediately from the note issue, the National Emission Caisse was allowed to buy North Russian government bonds equal to up to 25% of notes in circulation. (Ponsot 2002 says 33%, but his denominator is 133%, where 100% reflects the notes fully backed by foreign reserves and 33% represents North Russian government bonds.) The rest of the reserve was in sterling assets. Had it continued in existence, the Emission Caisse would have been required to accumulate a further reserve of 10%, which apparently would have been exclusively in foreign assets.

Other remarks

Sir Robert Chalmers, a British Treasury official involved with approving the North Russian currency board, had until December 4, 1915 been the chief administrator of the British colony Ceylon (now Sri Lanka), which at the time had a currency board (Ceylon annual report 1915: 1).

1918: The National Emission Caisse had a branch office in Murmansk.

1918: The board of directors consisted of the chairman and four directors, chosen jointly by the British and North Russian governments.

1919: During the Russian Civil War, the British government prohibited the importation into the United Kingdom of all Russian ruble notes other than those issued by the Caisse d'Emission of the Provisional Government of Archangel (United Kingdom, Prohibition of Import (No. 30) Proclamation, 1919, 28 March 1919, in *London Gazette*, no. 31255, 28 March 1919: 3999-4000, at <http://www.london-gazette.co.uk>).

References

Hanke, Steve H., and Kurt Schuler. 1991. "Keynes's Russian Currency Board." In Steve H. Hanke and Alan A. Walters, editors, *Capital Markets and Development*: 43-63. San Francisco: Institute for Contemporary Studies. (The essay is based on archival material from British Foreign Office files on Russia.)

North Russia. Gazette. 1918-1919. Вестник Временного управления Северной области (*Vestnik vremennogo pravitel'stva severnoi oblasti*); later Вестник Временного правительства Северной области (*Vestnik verkhovnago upravleniia severnoi oblasti*). (Both apparently translate in English to "Bulletin of the Provisional Government of the Northern Region.") Archangel: Arkhangel'skaia gubernskaia Tipografiia. (We have not seen this publication. It should be available in the Gosusdartvennyi arkhiv Arkangel'skoi oblasti [State Archive of the Archangel Oblast] and perhaps the Archangel regional library. We do not read Russian.)

Ponsot, Jean-François. 2002. "Keynes and the 'National Emission Caisse' of North Russia: 1918–1920." *History of Political Economy*, v. 34, no. 1, Spring: 177-206.

Spring Rice, Dominick. 1919. "The North Russian Currency." *Economic Journal*, v. 29, no. 115, September: 280-289.

Spreadsheets

High-frequency done (data are spotty); no separate annual workbook.

Oman

Name, headquarters, dates, membership

Muscat Currency Authority (headquarters Muscat, Oman), 7 May 1970 to 10 November 1972; name changed to Oman Currency Board (headquarters Muscat, Oman) 11 November 1972 to 31 March 1975. The name change reflected the earlier change in the name of the country from the Sultanate of Muscat and Oman to the Sultanate of Oman. A retrospective remarks that (presumably in contrast to the Muscat Currency Authority), “The Oman Currency Board also functioned as a central monetary authority facilitating economic transactions with the institutions abroad” (Central Bank of Oman annual report 1975: 2). The Currency Decree of 1974 allowed the currency board to organize a clearinghouse.

Before establishing a currency board, Oman used the Gulf rupee, a special Indian rupee printed for overseas use and not legal tender in India. The Maria Theresa silver thaler and local small-denomination coins were also in use. India’s devaluation of the rupee (and the Gulf rupee) in 1966 made the Persian Gulf states that used the Gulf rupee want to switch to a currency that would not be so weak. Oman was the last of the Persian Gulf states to cease using the Gulf rupee. The government established the Central Bank of Oman to replace the currency board in accord with the conventional economic ideas of the time regarding monetary policy (Central Bank of Oman annual report 1975: 6-8).

Legislation

- Oman, Currency Decree, April 1970: Established the Muscat Currency Authority.
- Oman, Currency Decree of 1972: Changed the name of the board to the Oman Currency Board.
- Oman, Banking Law, 1 December 1974: Established the Central Bank to Replace the Oman Currency Board.

Exchange rate and currency system

- 7 May 1970 to 10 November 1972: 1 rial Saidi = £1 sterling. Officially there was also a gold parity of rial Saidi = 2.13281 grams gold throughout the currency board period, but gold was not the intervention currency, nor could the public redeem rials in gold. The exchange rate with the Gulf rupee was 0.075 rials = 1 Gulf rupee. Oman joined the IMF on 23 December 1971, in effect establishing an exchange rate to the U.S. dollar at the cross rate with sterling, 1 rial Saidi = US\$2.60571.
- 11 November 1972 to 25 June 1972: 1 rial Omani = £1 sterling. The name of the currency changed to reflect the earlier change in the name of the country from the Sultanate of Muscat and Oman to the Sultanate of Oman.
- 26 June 1972 to 19 February 1973: 1 rial Omani = US\$2.60571. After the United Kingdom had floated the pound sterling three days earlier, Oman switched to the U.S. dollar as its anchor currency at, the cross-rate existing before sterling floated.
- 20 February 1973 to 31 March 1975: 1 rial Omani = US\$2.89524. Oman did not follow the devaluation of the U.S. dollar against gold, so the rial appreciated correspondingly against the dollar while remaining unchanged in terms of gold (Central Bank of Oman annual report 1975: 7 and IMF ARER 1972: 333; 1973: 371; 1974: 338).

The currency board charged a commission fee of 0.125% (Central Bank of Oman annual report 1975: 7)

The rial Saidi and rial Omani were decimal currencies, subdivided into 1,000 baiza. The currency board issued notes of 100 baizas to 10 rials as well as small-denomination coins.

See below on the dual exchange rate.

Financial year; sources of data

We have not seen the annual reports of the currency board. The first annual report of the Central Bank of Oman (1975) contains balance sheet data on the currency board quarterly from December 1971 to December 1974 and monthly data for January to March 1975. The report contains no data before December 1971.

Starting with 1972, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

None.

Remarks on the income and expenditure statement

None, since we have no data.

Remarks on other accounts and data

None.

Deviations from orthodoxy

There was a dual exchange rate until February 1973 (the last day perhaps being February 19) that mimicked the dual rate of the pound sterling, the anchor currency. Certain transactions occurred at the more depreciated "free rate." The rates were unified after the free rate appreciated when Oman revalued against the U.S. dollar (IMF ARER 1974: 338).

Other remarks

None.

References

Bank al-Markazī al-‘Umānī Central Bank of Oman). Annual report. 1975. *Annual Report*. Ruwi, Muscat, Oman: Central Bank of Oman. (Also in Arabic. All references are to the English translation.)

IMF ARER. 1950-present (annual). International Monetary Fund. *Annual Report on Exchange Restrictions* (1950-1978), *Annual Report on Exchange Arrangements and Exchange Restrictions* (1979-1988), *Exchange Arrangements and Exchange Restrictions: Annual Report* (1989-present). Washington: International Monetary Fund.

Muscat Currency Authority. Annual report. 1970-1972. See Oman Currency Board.

Oman Currency Board. Annual report. 1972-1975? *Accounts for the Period from 7th May, 1970 to 31st December, 1971* (1970-1971); *Accounts for the Year Ended 31st December, ...* (1972-1975?). London: Deloitte and Company, Chartered Accountants. (We are unsure whether an annual report for 1975 was issued, since the Central Bank of Oman succeeded the Oman Currency Board early in the year. (Perhaps held only at the University of Exeter; does the Central Bank of Oman have copies?)

Spreadsheets

High-frequency done; no separate annual workbook.

Palestine Currency Board

Name, headquarters, dates, membership

Palestine Currency Board, headquarters London.

Established 15 June 1926; began issuing currency 1 November 1927; ceased issuing currency 30 June 1951; liquidated 17 June 1952.

The board served Palestine (now Israel) and Transjordan (now Jordan). After part of Palestine became independent as Israel on 14 May 1948 and issued its own currency starting on 17 August 1948, the Palestine Currency Board continued to serve the remainder, comprising the West Bank (absorbed by Jordan) and the Gaza Strip (administered by Egypt). Jordan established its own currency board, which began issuing a separate currency to replace Palestine currency on 1 July 1950. Egyptian currency replaced Palestine currency in the Gaza Strip beginning in April 1951; Redemption ended on 9 June 1951, when Palestine currency was declared no longer legal tender there. Palestine currency ceased to be legal tender in Jordan after 30 June 1951 (PCB annual report 1952: 2). The board was liquidated as of 17 June 1952 (PCB annual report 1952: 3).

The rationale for establishing the board was to replace Egyptian currency, which had been introduced by the British military authorities when they conquered Palestine in a campaign launched from Egypt, which at the time was a British protectorate. The currency board enabled seigniorage revenue to accrue to the government of Palestine instead of to the National Bank of Egypt. The board began winding down its affairs when Israel prepared to become independent.

Legislation

- United Kingdom, Secretary of State for the Colonies, Regulations Defining the Constitution, Duties and Powers of the Palestine Currency Board, 2 August 1926: Established the Palestine Currency Board.
- Israel, Bank Notes Ordinance, 16 August 1948: The Anglo-Palestine Bank took over the notes formerly issued by the Palestine Currency Board.

Exchange rate and currency system

The exchange rate was Palestine £1 = £1 sterling.

The Palestine Currency Board charged a commission of 0.125% for issues and redemptions of Palestinian pounds with pounds sterling. The minimum amount for exchange was Palestine £10,000 (PCB annual report 1928: 5).

The Palestine pound, unlike the pound sterling of the time, was a decimal currency, divided into 1,000 mils. The Palestine Currency Board issued coins of 1 to 100 mils and notes of 500 mils to £100. Coins of 50 and 100 mils were 72% silver (PCB annual report 1928: 3-4, 6). Because the Board had its headquarters in London, the financial statements in its annual reports use the British pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny).

Financial year; sources of data

The Palestinian Currency Board’s financial year ran from April 1 to March 31. Apparently, many Middle Eastern countries have used these dates after the end of Ottoman rule because April 1 begins the nearest quarter to March 1, which was the start of the fiscal year in the Ottoman Empire.

We have copies of all the Board’s annual reports. The Board was also required to publish abbreviated financial statements in the government gazette of Palestine twice a year (PCB annual report 1928: 7), and it published monthly statements listing only currency in circulation. We have digitized these high-frequency data in a separate workbook. Semiannual September securities data cease after 1947, although annual data continue.

The International Monetary Fund’s *International Financial Statistics* database does not cover the Palestine Currency Board.

Remarks on the balance sheet

We believe but are not entirely sure that certain entries for “bank deposits” as assets are for deposits of the Palestine Currency Board at domestic banks rather than banks in London.

1928: The Palestine Currency Board had negative net worth in its first year because of the expenses of start-up costs, especially minting coins and printing notes (PCB annual report 1928: 5). Also, besides the balance sheet, which valued securities at cost, the annual report shows the Estimated General Position, which valued securities at market value (PCB annual report 1928: 17). As with other British colonial currency boards that published similar accounts, we have used the Estimated General Position as the basis for our standardized balance sheet for the years it exists (1928 to 1943). The difference was small.

Remarks on the income and expenditure statement

The Income and Expenditures (Statement of Receipts and Disbursements) includes issues and redemptions of currency and related financial operations. The Profit and Loss Account is in fact closer to a standard present-day income and expenditure statement, and we use it in our standardization.

The Palestine Currency Board met its initial expenditures through a loan from the Crown Agents for the Colonies (PCB annual report 1928: 5).

Remarks on other accounts and data

The accounts were revised in the 1944 financial year with the intention of making them simpler and clearer. Information formerly contained in the Estimated General Position was transferred to the balance sheet (PCB annual report 1944: 3). The accounts shown in the annual reports were as follows:

Manufacture, Issue and Withdrawal Account (Expenses of Manufacture and Supply Account from 1930):

Value of coin in stock, plus charges of minting coins and printing notes.

Issue and Redemption Account (1930-1952): Showed currency issued and redeemed. Separated from Manufacture, Issued and Withdrawal Account so as not to affect the balance of the Profit and Loss Account.

Profit and Loss Appropriation Account (1944-1952): Distribution of profits.

Silver Bullion Account (1944-1952): Value of silver in Palestinian Currency Board coins.

Investment Reserve Account (Investment Account): Investments in securities.

Surplus Assets Account (1952 only): Surplus assets left at the winding up of the Board.

Currency Reserve Fund (1929-1952; an item in the balance sheet in 1928, but not a separate account in the financial statement): Backing for currency in circulation.

Deviations from orthodoxy

As stated above in the remarks on the balance sheet, we believe but are not entirely sure that certain entries for “bank deposits” as assets are for deposits of the Palestine Currency Board at domestic banks rather than banks in London.

Other remarks

We thank Stanley Fischer for a copy of the Palestine Currency Board’s hard-to-find 1942 annual report.

1928: Egyptian currency and British gold sovereigns ceased to be legal tender after 31 March 1928 (PCB annual report 1928: 4). Previously, Egyptian currency was the currency people used. During the first year of the Board’s existence, most currency issued was exchanged for Egyptian currency rather than issued against sterling deposited in London. The exchange rate between Palestine and Egyptian currency was Palestine £1 = Egyptian £0.975.

1932: In September and October 1931 there was an increase in the demand for silver coins relative to notes after Britain abandoned the gold standard, but an official communiqué helped restore confidence in notes (PCB annual report 1932: 2-3).

1936: There was a brief banking panic in late August and early September 1935 connected with Italy's invasion of Ethiopia, but it quickly passed (PCB annual report 1936: 3).

1937: A general strike by Arab inhabitants from April to October 1936 had no marked effect on currency in circulation, although circulation fell sharply after the strike ended, to some extent because banks held less currency as a precautionary measure (PCB annual report 1937: 2).

1939: In the autumn of 1938, particularly on 28 September, there were substantial withdrawals of deposits from financial institutions and increased demand for currency because of nervousness about the political crisis in Europe. After the Munich Agreement, deposits returned, but in February and March 1939, currency hoarding again occurred because of nervousness about political developments in Europe (PCB annual report 1939: 3).

1940: There was an increase in demand in August and September 1939 currency related to apprehension about the outbreak of war in Europe, but after the third week of September, demand diminished; we assume the reason was that it became clear the British Empire would not come under immediate attack (PCB annual report 1940: 3).

References

Palestine. Gazette. 1920-1948. *Official Gazette of the Government of Palestine* (1920-1932); *The Palestine Gazette: Official Gazette of the Government of Palestine* (1932-1948; also in Hebrew and Arabic editions). Jerusalem: Published by Authority.

PCB. Great Britain. Palestine Currency Board. Annual report. 1928-1952. *Report of the Palestine Currency Board for the Period Ended 31st March,* London: Waterlow and Sons. Unless indicated otherwise, facts mentioned in the text will be found in the report covering the financial year for which they are mentioned. The text above lists financial years under the calendar years they end.

Spreadsheets

Annual and high-frequency done. We still lack securities data for September 1934, exact currency data for December 1934, and currency data for November 1935. These should be in the *Palestine Gazette* but we have been unable to find them.

Philippines

Name, headquarters, dates, membership

- 23? October 1903-15 August 1918: Gold Standard Fund (of the Philippine Treasury), headquarters Manila, Philippines. (*From 21 June 1916-1 January 1923 the system did not operate according to currency board-type rules.*)
- 16 August 1918-2 January 1942: Currency Reserve Fund (of the Philippine Treasury), headquarters Manila, Philippines.
- 3 January 1942-4 March 1945: Japanese occupation during World War II. Philippine Treasury notes continued to circulate but were not redeemable in U.S. dollars, therefore *the system was not a currency board in this period.*
- 5 March 1945-2 January 1949: Currency Reserve Fund (of the Philippine Treasury), headquarters Manila, Philippines.

The Philippine currency board was created by U.S. colonial authorities to move the Philippines off the silver standard, which it had long used under Spanish rule, onto a gold standard like the United States. On 3 January 1949 the Central Bank of the Philippines began operations, replacing the Treasury issue of notes. A joint U.S.-Philippine study commission had proposed a central bank, and the currency board system had been criticized as being excessively rigid and requiring excessive foreign reserves. There had been earlier moves toward a central bank. The Philippines had passed a central bank law in 1939, but the Philippines was still a U.S. territory at the time, and U.S. President Franklin Roosevelt had vetoed the law ("Creating a Central Bank for the Philippines," Bangko Sentral ng Pilipinas Web site, viewed 17 February 2009). Also, late in World War II the Japanese-sponsored Philippine puppet regime tried to establish a local central bank, the Bangko Sentral ng Pilipinas, by the Central Bank Act, 28 February 1944 (cited in Fujita 2003: 21 and partly reprinted in Bányaí 1974: 1-2). The plan was to transform the Philippine National Bank, the leading commercial bank, into a central bank. The U.S. recapture of the Philippines occurred before the law could be implemented.

Legislation

References to Philippine legislation elsewhere sometimes distinguish among these periods by referring to legislation as Act (1900-1935), Commonwealth Act (1935-1946), or Republic Act (1946 onward), reflecting the different forms of governance the Philippines had during those periods.

- United States, An Act to Establish a Standard of Value and to Provide for a Coinage System in the Philippine Islands (Philippine Coinage Act), ch. 980, No. 137, 2 March 1903: established a currency board and switched the currency from the silver standard to the gold standard.
- Philippine Commission, Gold Standard Act, No. 938, 10 October 1903: Local implementing legislation corresponding to the U.S. act.
- Philippine Commission, proclamation of 23 October 1903, cited in Kemmerer (1916: 289); United States, act of 23 June 1906 (Public No. 274, ch. 3521): Set the date for beginning the operations of the new currency system.
- Philippines, Local Currency Taxation Act, No. 1045, 27 January 1904: Imposed a tax on old currency effective 1 October 1904.
- United States, Act No. 43, 6 February 1905: In addition to the notes of the gold Standard Fund, the government apparently simultaneously began issuing silver certificates backed 100% by a silver coin reserve as substitutes for silver coins.
- United States, act of 23 June 1906 (Public No. 274, ch. 3521): allowed gold coin to comprise up to 60% of the reserve.

- Philippines, Act No. 1790, 12 October 1907: Allowed the Banco Español-Filipino (which shortly thereafter changed its name to the Bank of the Philippine Islands) to issue notes up to 9 million Philippine pesos under certain restrictions (see article 24 of the act). Apparently this ceiling remained unchanged until the bank ceased issuing notes decades later.
- Philippines, Act No. 2083, 8 December 1911: Provided that foreign reserves exceeding 35% of the monetary base, excluding silver certificates backed by gold, should periodically be transferred to general government revenue. The act also provided that the government could invest up to half of the Gold Standard Fund in Philippine provincial and municipal securities, and in a local railroad.
- Philippines, Philippine National Bank Act, No. 2612, 4 February 1916: The act establishing the bank made it the sole government depository and authorized it to issue notes, which it did. The bank was a commercial bank with majority government ownership; it was the successor to the smaller government-owned Agricultural Bank.
- Philippines, Act No. 2747, 20 February 1918: Amended the charter of the Philippine National Bank.
- Philippines, Act No. 2776, March 1918: Combined the Gold Standard Fund and the Silver Certificate Reserve as the Currency Reserve Fund and allowed the government to deposit up to 25% of the Currency Reserve Fund with the New York branch of the Philippine National Bank. The monetary authority thus definitively became currency board-like.
- Philippines, governor-general's proclamation of 16 August 1918 (cited in Luthringer 1934: 55): Apparently the implementing order to Act No. 2776.
- Philippines, Act No. 2939, 28 January 1921: Acknowledged the reduced foreign reserves of the Currency Reserve Fund by reducing its minimum ratio of foreign reserves from 100% to 60%.
- Philippines, governor-general's proclamation of 3 February 1921 (cited in Luthringer 1934: 80): Apparently the implementing order to Act No. 2939.
- Philippines, Act No. 3058, 13 June 1922: The Currency Reserve Fund returned to currency board rules after a currency depreciation caused by abandoning the rules. There was a delay of half a year between the approval of the law and its implementation because of a delay in the sale of Philippine government bonds needed to bolster the Currency Reserve Fund (Luthringer 1934: [201-204 or 206-207; we still need to investigate whether this delay meant that the system was not yet operating again on currency board principles]).
- Philippines, Act No. 3174, 24 November 1924: Starting at the end of 1928 the Philippine National Bank had to make the first installments of assets deposited with the government to cover its note issue 100%.
- Philippines, Proclamation No. 559, 9 March 1933 (cited in Luthringer (1934: 249-250 n. 31): The United States prohibited the export or paying out by banks of gold on 6 March 1933 and abandoned the gold standard on 9 March 1933 and the Philippines followed. The Philippines simply ignored the legal provisions that defined the Philippine peso in terms of gold in Philippines, Act No. 3058, 13 June 1922.
- United States, Presidential Proclamation No. 2072, 31 January 1934: The United States returned to the gold standard on 1 February 1934. The U.S. proclamation set the weights of the US dollar at 15-5/21 grains of gold 9/10 fine from 3:30 p.m. Washington, D.C. time on 31 January 1934.
- Commander-in-Chief of the Imperial Japanese Army [in the Philippines], proclamation of 3 January 1942, cited in Bányai (1974: 90): During the Second World War, the Japanese issued occupation currency the day after entering Manila.
- Philippines, Executive Order No. 25, 18 November 1944: Japanese currency was demonetized in areas of the Philippines under Commonwealth (U.S.) control after their recapture late in World War II.
- Philippines, Central Bank Act, Republic Act No. 265, 15 June 1948: Established the Central Bank of the Philippines to replace the quasi currency board system.

Exchange rate and currency system

- 1 August 1903-20 June 1916: 2 (new) Philippine pesos = US\$1, or 1 Philippine peso = 11.61 grains (0.75238 grams) gold. Mexican silver dollars (pesos, piasters) and old Philippine pesos were accepted as legal tender at 2.30 Philippine pesos = Mexican silver \$2.30 = US\$1 through 31 December 1903, but were demonetized thereafter under the U.S. Philippine Coinage Act and Philippine Commission, Local Currency Taxation Act. 28 January 1904, which was put into effect partly on 10 October 1904 and fully on 1 January 1905.
- 23rd March 1919-1 January 1923: The exchange rate was not fixed during this period; rather, it was a de facto float or band, during which the monetary system was therefore not a currency board.
- 2 January 1923-8 March 1933: new) Philippine pesos = US\$1, or 1 Philippine peso = 11.61 grains (0.75238 grams) gold. Returned to the old exchange rate.
- 9 March 1933 -31 January 1934: 2 Philippine pesos = US\$1. The United States prohibited the export or paying out by banks of gold on 6 March 1933 and abandoned the gold standard on 9 March 1933 and the Philippines followed. The Philippines simply ignored the legal provisions that defined the Philippine peso in terms of gold (which were in Philippines, Act No. 3058, 13 June 1922, cited in Luthringer 1934: 249).
- 1 February 1934-2 January 1942: 2 Philippine pesos = US\$1, or 1 Philippine peso = 6-6/7 grains (0.444335 grams) gold. The United States returned to the gold standard on 1 February 1934. A U.S. proclamation set the weight of the U.S. dollar at 15-5/21 grains of gold 9/10 fine from 3:30 p.m. Washington, D.C. time on 31 January 1934.
- 3 January 1942-4 March 1945: Japanese occupation during World War II. The occupation authorities set the Philippine peso nominally equal to the Japanese yen but in fact not readily convertible into the yen. The prewar exchange rate had been about 2.1 Japanese yen = 1 Philippine peso.
- 5 March 1945-2 January 1949: 2 Philippine pesos = US\$1, or 1 Philippine peso = 6-6/7 grains (0.444335 grams) gold. The Philippines registered a gold parity with the IMF on 18 December 1946 (IMF, 1st *Schedule of Par Values*, 18 December 1946: 4).

[We may add further legislative references here if not accounted for in the Legislation section.]

Currently we have no information about commission fees or the minimum exchange size.

The Philippine peso was a decimal currency divided into 100 cents. Notes of 1 to 500 Philippine pesos were issued. Coins were covered by the Gold Standard Fund or the Currency Reserve Fund to the extent that their value as currency exceeded their value as metal.

Philippines, Act No. 3058, 13 June 1922, amendment to Article 1621, specified a minimum transaction size of US\$10,000.

Financial year; sources of data

The financial year was the calendar year.

We have many but not all of the relevant annual reports. We have not yet checked for sources of high-frequency data.

The International Monetary Fund's *International Financial Statistics* database does not cover the Philippines during the period of the currency board.

Remarks on the balance sheet

To come.

Remarks on the income and expenditure statement

To come.

Remarks on other accounts and data

To come.

Deviations from orthodoxy

The initial system was one of 100% marginal reserves, not 100% total reserves [citation needed].

The first deviations from currency board orthodoxy began in January 1908. Silver certificates comprised the bulk of notes in circulation. Since silver certificates were backed 100% by silver coin [Get date from Luthringer—coin, gold, or foreign deposits], we count them as being issued according to currency board principles. The Gold Standard Fund's first deviations from currency board orthodoxy began at the start of this period, when the government deposited some funds in local banks. The Gold Standard Fund therefore became currency board-like rather than an orthodox currency board maintaining 100% marginal foreign exchange reserves. [But silver certificates, the bulk of notes, were still backed 100% by foreign assets]

On 21 June 1916, shortly after the Philippine National Bank opened, the government transferred to it part of the reserves of the Gold Standard Fund and the Silver Certificate Reserve. The bank depleted the value of the deposit in speculations (Luthringer 1934: 101-2, 104, 115-17). [so, date the end of the silver certificates as operating on currency board principles to this period? Need to review the Philippine reports here]

Other remarks

Rahee Jung digitized data as part of work for a term paper.

Two banks, the Bank of the Philippine Islands (previously the Banco Español Filipino) and the Philippine National Bank, issued notes.

In mid 1916, the high price of silver induced the Philippine government to begin taking most of the silver reserves for silver certificates and investing them in interest-earning assets in the United States (Luthringer 1934: 41-2, 48).

References

Bányai, Richard A. 1974. *Money and Banking in China and Southeast Asia During the Japanese Military Occupation 1937-1945*. Taipei: Tai Wan Enterprises Company, Limited.

Fujita, Kazuya. 2003. "Japanese Military Currency (1937-1945): Quantities Printed and Issued." *I.B.N.S. Journal* (International Bank Note Society), v. 42, no. 3: 1-24. (Has information relevant to a number of countries occupied by Japanese forces during the Second World War.)

[Rahee Jung's paper]

Luthringer, George F[rancis]. 1934. *The Gold-Exchange Standard in the Philippines*. Princeton: Princeton University Press.

Philippine Commission. 1900-1935? *Public Laws Passed [later Enacted] by the Philippine Commission during the Period...* Manila: Bureau of Printing.

Report of the Philippine Commission [some years on Google Books]

<http://onlinebooks.library.upenn.edu/webbin/serial?id=reportusphilip>

Spreadsheets

Under construction.

Qatar and Dubai Currency Board

Name, headquarters, dates, membership

Qatar and Dubai Currency Board, headquarters Doha, Qatar.

Established 21 March 1966; began operations late June 1966; ceased issuing currency 18 May 1973; succeeded on 19 May 1973 in Qatar by the Qatar Monetary Agency and in Dubai by the United Arab Emirates Currency Board. Both of the successor monetary authorities were central banks, despite names that seem to indicate otherwise.

The Board served Qatar and Dubai. It was established because of a delay in implementing the Arabian Gulf Currency Agreement, signed on 7 July 1965 between Abu Dhabi, Bahrain, Dubai, and Qatar. Qatar and Dubai decided to proceed without Bahrain and Qatar (QCB annual report 1966: 1). We believe that the rationale for the Arabian Gulf Currency Agreement was dissatisfaction with the currency then used in all four territories, the Gulf rupee. It was a currency issued by India for use abroad that was not fully convertible into the Indian rupee. The board ceased when Qatar and Dubai went separate ways, with Dubai joining the newly formed United Arab Emirates Currency Board (which, to repeat, was in reality a central bank). The breakup of the Bretton Woods system of pegged exchange rates seems to have been an influence on the decision to establish successor central banks rather than currency boards.

Legislation

- Qatar and Dubai, Qatar-Dubai Currency Agreement, 21 March 1966, and amendment of 31 August 1966: Established the Qatar and Dubai Currency Board.
- Qatar, Law No. 7, 13 May 1973: Established the Qatar Monetary Agency to replace the Qatar and Dubai Currency Board.

Exchange rate and currency system

The Qatar and Dubai Currency Board maintained an unchanging official exchange rate in terms of gold, but used the pound sterling or the U.S. dollar as its intervention currency in foreign exchange markets. Because sterling and the dollar fluctuated against gold, in terms of the intervention currencies, the exchange rate changed as follows:

- Late June 1966-18 November 1967: 1 Qatar-Dubai riyal = 0.186621 gram pure gold = 1.5 British shillings (18 pence, or £0.075). As with other countries at the time, Qatar and Dubai had an official exchange rate in terms of gold, but did not freely redeem their currency in gold to the public, hence gold was not the true anchor.
- 19 November 1967-25 June 1972: 1 Qatar-Dubai riyal = 0.186621 gram gold = 1 shilling 9 pence (21 pence or £0.0875).
- 26 June 1972-18 May 1973: 1 Qatar-Dubai riyal = 0.186621 gram pure gold = US\$0.228. The pound sterling began to float against the U.S. dollar and other currencies, so the Qatar and Dubai Currency Board switched to the U.S. dollar as the de facto anchor currency. The Board effected issues and redemptions of the currency in pounds sterling at the prevailing market rate against the U.S. dollar (QDCB annual report 1972: 1).

The Qatar and Dubai Currency Board charged a commission fee of 0.125% for exchanges into or out of pounds sterling, with a minimum amount of 1 million Qatar-Dubai riyals (QDCB annual report 1966: 3, 39).

The Qatar and Dubai riyal was a decimal currency, divided into 100 dirhams. The Qatar and Dubai currency board issued coins of 1 dirham to 1 riyal and notes of 1 dirham to 100 dirhams.

In the first few months of its existence, the currency system of Qatar and Dubai changed rapidly as an improvised response to unexpected events. In 1965 Qatar and Dubai had agreed to establish the Qatar and Dubai currency board, and in March 1966 they had placed orders for the minting of the Board's coins and the printing of its notes. At the time they used the Gulf rupee, a currency issued by India's

central bank for foreign use. The Gulf rupee was equal to the Indian rupee but was subject to less stringent exchange controls, and had notes and coins of a different design from the Indian rupee. India devalued the Indian rupee and the Gulf rupee on 6 June 1966, surprising Qatar and Dubai. The governments of Qatar and Dubai asked banks to convert Gulf rupee deposits into Qatar-Dubai riyals at the predevaluation exchange rate with the pound sterling, and guaranteed the predevaluation rate. They allowed Gulf rupee notes and coins to be converted into Qatar-Dubai riyal coins at 1:1 despite the devaluation. The Qatar and Dubai Currency Board began issuing riyal coins in late June. Riyal notes were on order but not yet ready to be issued. To prevent an inflow of Gulf rupee notes from countries where the notes had been devalued, Qatar and Dubai temporarily used Saudi riyal notes, which they bought from the Saudi central bank. Starting on 18 September 1966 the Qatar and Dubai Currency Board began issuing its own notes at 1.065 Qatar-Dubai riyals = 1 Saudi riyal (QDCB annual report 1966: 1-2).

Financial year; sources of data

The Qatar and Dubai Currency Board's financial year was the calendar year, January 1 to December 31.

We have copies of all the annual reports of the Qatar and Dubai Currency Board. We still need to check data for December 1966 on currency held by banks and the public, for which our photo is blurry.

Annual reports contain monthly statistics on currency in circulation from October 1966 onward; quarterly summary statistics for the banking system from September 1966 onward; and monthly data on the percentage division of the currency board's external assets into gold, sterling, and other assets from December 1967 onward. Other high-frequency data may exist in the government gazette, which we did not search because we do not read Arabic.

Starting with 1966, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

General: "Amount due to Government of Qatar" was the amount paid to the government of Qatar from the Currency Reserve Fund in excess of 110% of currency in circulation.

1966: "Interest due but not received" was a time deposit formerly held by the government of Qatar that the government transferred to the Qatar and Dubai Currency Board (QDCB annual report 1966: 4). The annual report is unclear whether the deposit was a foreign asset or a domestic asset. We classify it as a foreign deposit because later balance sheets show that the Board held most of its bank deposits abroad, and we assume continuity between the practices of the government of Qatar and the Currency Board in this respect.

1967: Gold on the balance sheet here and in later years was valued at the official exchange rate of 1 Qatar-Dubai riyal = 0.186621 gram gold (QDCB annual report 1967: 6). From 1968 until the final collapse of the Bretton Woods system in 1973, the world market price of gold exceeded official rates established under the system, including those in Qatar and Dubai. Hence in later years the balance sheet understates the Board's assets.

1972: The Board received compensation from the United Kingdom under the Sterling Guarantee Agreement it had signed in September 1968 (QDCB annual report 1968: 1; 1972: 1-2). The Agreement provided for compensation if the pound sterling depreciated below the 1968 level of £1 = US\$2.40.

Remarks on the income and expenditure statement

1967: The currency board suffered losses on its pound sterling assets because it did not devalue the Qatar-Dubai riyal along with the pound sterling. The government of Qatar gave the board £1 million (11,428,571.43 Qatar-Dubai riyals) to offset the devaluation. The original income/expenditure statement sheet calls it "Government of Qatar—additional currency cover." In our standardized income/expenditure

statement we show the loss resulting from the devaluation of pound sterling assets (14,906,264.02 Qatar-Dubai riyals) and the money that the government of Qatar as negative items on the *income* side of the statement, whereas in the original it is on the expenditure side. Hence for 1967, standardized income and expenditure are lower than the corresponding values in the raw data.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Almost from the start, the Qatar and Dubai Currency board held a small amount of funds with local banks. We do not view the deposits as a significant deviation from orthodoxy because there does not seem to have been an intention to maintain large, permanent holdings of domestic assets.

Other remarks

1968: The Board signed an agreement with the United Kingdom guaranteeing the value of its sterling assets in terms of U.S. dollars (QDCB annual report 1968: 1). As a result of the devaluation of sterling on 18 November 1967, an indication of its weakness at the time, the Board reduced the share of its holdings of sterling and diversified into U.S. dollars, Swiss francs, and gold.

1971: On 2 September 1971 Qatar became independent. On 2 December 1971, Dubai became independent as a member of the United Arab Emirates. Previously, both had been British protectorates. The change in political status did not affect the operations of the Qatar and Dubai Currency Board.

References

QDCB. Qatar and Dubai Currency Board. Annual report. 1966-1972. *First Report for the Period Ended 31st December, 1966* (1966); *Annual Report for the Year Ended 31st December, ...* (1967-1972). Doha, Qatar: Qatar and Dubai Currency Board. Unless indicated otherwise, facts mentioned in the text will be found in the report covering the financial year for which they are mentioned. The text above lists financial years under the calendar years they end.

Spreadsheets

Annual and high-frequency done.

Saint Helena

Name, headquarters, dates, membership

Saint Helena Finance Department, headquarters Jamestown, Saint Helena, 16 January 1976-present. The Currency Fund is the account of the Finance Department that handles currency.

Established a currency board to capture seigniorage, including that from coin collectors. Previously St. Helena used British currency. The currency board issued its first notes on 16 January 1976 and its first coins on 28 November 1983, the latter being the first really regular issue of local coins for St. Helena. The episode continues today.

Legislation

- Saint Helena, Currency Ordinance, No. 7 of 1975: Established a currency board.
- Saint Helena, Currency Regulations, 1976, Legal Notice No. 20 of 1976: Authorized the currency board to open.

Exchange rate and currency system

The exchange rate is Saint Helena £1 = £1 sterling.

We have no information about commission fees and minimum exchange amounts. [We may write to the St. Helena government for details.]

The Saint Helena pound is a decimal currency, divided into 100 pence.

The Finance Department has issued coins of 1 pence to £2 and notes of 50 pence to £20.

Financial year; sources of data

The financial year runs from April 1 to March. 31.

The St. Helena annual report contains a section on the Currency Fund. We have data from 1993 (given in the 1994 report, the first one we have) to 2001. We currently lack data for later years, which may be available in London. Also, we have not seen the government gazette

No high-frequency data seem to be published, though we have not examined the government gazette. High-frequency data may exist in government archives.

The International Monetary Fund's *International Financial Statistics* database does not cover Saint Helena.

Remarks on the balance sheet

The Currency Fund contains notes and coins in circulation. The General Reserve is contains assets in excess of notes and coins in circulation. The Revenue Account, which first appears in 1996, contains the operating surplus for the financial year, if any, and is transferred to the General Reserve.

The balance sheet counts the bullion value of platinum, gold, and silver coins in circulation as an asset, calculated at mid-market price at the accounting date but subject to maximum limits under section 13(4) of the Currency Ordinance (St. Helena Annual Report 1994, "St. Helena Currency Fund"). These coins are aimed at collectors and do not circulate, since their face value is well below their value as metal.

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Apparently none.

Other remarks

The Currency Fund is managed on behalf of St. Helena by Crown Agents Asset Management, Ltd. Formerly a British public corporation, it is now a private firm owned by the Crown Agents Foundation, whose members include other firms, nongovernmental organization, the British government, and various international agencies.

References

Hanke, Steve H., and Matthew Sekerke. 2003. "St. Helena's Forgotten Currency Board." *Central Banking*, v. 13, no. 3, February: 77-81. [Need to look at this once more; it is lost from our files.]

Saint Helena. 1994-present. *Annual Report*. Jamestown, Saint Helena. The text above lists financial years under the calendar years they end.

Saint Helena. [date]–present. *Saint Helena Government Gazette*. Jamestown: Published by Authority. [We may ask the author of a book on the history of St. Helena for suggestions on sources.]

[Audit report on the accounts of St. Helena: for the financial period ended 31.3.]

Spreadsheets

Under construction.

Sarawak (now part of Malaysia)

Name, headquarters, dates, membership

- Government of Sarawak, September? 1880 to September 1927, headquarters Kuching, Sarawak. (We are uncertain whether this was a currency board; see remarks below.)
- Sarawak Currency Fund, headquarters Kuching, Sarawak, September 1927 to 22 February 1942. [We think the starting date is correct but the system may not actually have come into operation until 1929.]

Information on the early years of the note issue is scarce. The government of Sarawak began issuing its own notes in 1880. We infer that the reason was a perceived need for notes; no note-issuing commercial banks operated in Sarawak at the time. The Sarawak government issue may have operated as a currency board; note issues were backed by a fund of 100% liquid assets which, however, was not kept separately from the government's general revenue account. As of 1923 the government's investment in Straits Settlement currency far exceeded the amount of the note issue, but none of it was earmarked against the note issue, though the government did keep Straits \$50,000 at a Singapore bank for making redemptions (US Mint annual report, 30 June 1924: 190). The Sarawak Currency Fund was definitely a currency board (King 1957: 33). Sarawak's independent currency board episode ended when Japanese occupation forces began issuing a currency starting on 23 February 1942. During the rest of the war the notes were hoarded. A colonial annual report summarizes the situation after liberation as follows:

In order to provide a uniform currency for the invading troops throughout British Borneo, it was decided that upon the re-occupation of the country Malayan Currency should be provided for their use. It was also expected that the Japanese would have withdrawn most of the local currency and replaced it with their own. In the event surprising amounts of local currency re-appeared in the earliest days of the re-occupation.

It was intended that the re-introduction of Sarawak notes should begin when the Civil Government took over but the Cession of the State to the Crown in July, 1946 led to a continuation of the Malayan issue. (Sarawak annual report 1947:33)

"The Cession of the State to the Crown" refers to Sarawak becoming a colony rather than a protected state as before. The British military administration treated the occupation currency issued by the Japanese as worthless. After liberation, old Sarawak notes continued in circulation in declining numbers; the British military administration and then the government of Sarawak gradually withdrew them from circulation (King 1957: 25, 35). Because the postwar margin of increased demand for notes and coins was met entirely by Malayan currency, not by Sarawak currency, we classify Sarawak's independent currency board as having ended in 1942. On 1 January 1952 Sarawak joined the Board of Commissioners of Currency, Malaya and British Borneo.

Legislation

- Sarawak, proclamation of the Rajah Muda (ruler), 20 November 1904 (cited in King 1956: 32): In effect made the Straits dollar the unit of account and made Straits dollar coins the standard of value. [See the colonial report, if one exists, to find whether the proclamation took effect that day, or only later, such as January 1.]
- Sarawak, Order No. 1, 1 January 1906 (reprinted in King 1957: 32): Stated that only Straits dollars would be accepted at government treasuries henceforth.
- Sarawak, Notice No. 237, 1 April 1930 (cited in King 1957: 34): Made Sarawak notes and Straits settlement silver dollars sole unlimited legal tender, effective 1 July 1930.
- Sarawak, notification of 1939 (cited in King 1957: 34): Stripped Straits dollars of their legal tender quality and prohibited their importation.

- [Need to search for other legislation]

Exchange rate and currency system

The exchange rates were as follows:

- September? 1880 to 19 November? 1904: Sarawak \$1 = 1 Mexican silver peso (Mexican dollar). The Mexican dollar was widely used in East Asia. Straits Settlement currency was also legal tender as of 1923 (US Mint annual report, 30 June 1924: 190).
- 20 November? 1904 to 20 October 1938: Sarawak \$1 = Straits Settlements \$1. A Sarawak proclamation of the Rajah Muda (ruler) of 20 November 1904 (cited in King 1956: 32) in effect made the Straits dollar the unit of account and made Straits dollar coins the standard of value. [See colonial report, if one exists, to find whether the proclamation took effect that day, or only later, such as January 1.] Order No. 1 of 1 January 1906 (reprinted in King 1957: 32) stated that only Straits dollars would be accepted at government treasuries henceforth. Although legally Sarawak currency was only redeemable in Sarawak, in practice the government redeemed it in London in pounds sterling at Sarawak \$1 = 2 shillings 4 pence sterling (£0.11-2/3 sterling) (King 1957: 31). We assume that this practice only started after Singapore established a rigid rate with the pound sterling on 29 January 1906.
- Sarawak, Notice No. 237, 1 April 1930 (cited in King 1957: 34), made Sarawak notes and Straits settlement silver dollars sole unlimited legal tender, effective 1 July 1930. Although legally Sarawak currency was only redeemable in Sarawak, in practice the government redeemed it in London in pounds sterling at the rate listed (King 1957: 31).
- 21 October 1938 to 22 February 1942: Sarawak \$1 = Malayan \$1. The Malayan dollar replaced the Straits dollar when the currency union between the Straits Settlements and Malaya came into existence, at Malayan \$1 = Straits \$1. A Sarawak notification of 1939 (cited in King 1957: 34) stripped Straits dollars of their legal tender quality and prohibited their importation, apparently to harmonize with the introduction of the Malay dollar to replace the Straits dollar.

We found no information about commission fees the currency board charged, but we suspect that they existed because they were common at the time.

The Sarawak dollar was a decimal currency, divided into 100 cents. The government issued coins of 1 cent [Wikipedia says ¼ cent, so check a coin catalog] to 50 cents, which seem to have been liabilities of the government generally rather than the currency board specifically. The government also issued 10- and 25-cent notes in 1919 when the high price of silver led to a shortage of silver coins. The notes issued by the the Sarawak Currency Fund were for \$1 to \$100. [Check with a note catalog that \$50 wasn't the top.]

Financial year; sources of data

Uncertain; possibly the same as in the Straits Settlements.

[Annual reports: Currently we are only aware of holdings of the the colonial report for 1947-1952 and the gazette for 1948-1952.]

[The episode ran perhaps as early as 1880 and certainly by 1927 to 1942, then after Japanese occupation and British liberation, British military forces used Malayan currency rather than reintroducing Sarawak currency, although old Sarawak currency remained in circulation.]

High-frequency data may exist in the government gazette, which we have not searched.

The International Monetary Fund's *International Financial Statistics* database does not cover Sarawak.

Remarks on the balance sheet

None. The colonial annual reports provide little balance sheet information.

Remarks on the income and expenditure statement

None. The colonial annual reports provide no[?] information on income and expenditures.

Remarks on other accounts and data

None.

Deviations from orthodoxy

As mentioned above, because of a scarcity of data, we are uncertain whether the system was a currency board before September 1927.

Other remarks

1924?: The first bank was apparently the Oversea- Chinese Bank (headquarters Singapore), in Kuching, sometime between 1919, when the bank was founded, and 1924. The second bank was apparently the Chartered Bank of India, Australia and China (headquarters London, England), which opened a branch in Kuching in late 1924 (Mackenzie 1953: 266-7).

1942?: The Japanese amalgamated all local banks during their occupation (Sarawak annual report 1947:33).

1949: Sarawak currency still in circulation was covered by high-quality ("gilt-edged") securities in the London market (Sarawak annual report 1949: 25).

References

[We still need to get the prewar annual colonial reports, which are the ones that have the info on the currency board.]

Great Britain. Colonial Office. *Annual Report on Sarawak for the Year* ..., (1947-1952) London: HMSO. (Printed in Kuching 1947-1949.)

King, Frank H[enry] H[aviland]. 1957. *Money in British East Asia*. London: Her Majesty's Stationery Office.

Mackenzie, [Sir] Compton. 1954. *Realms of Silver: One Hundred Years of Banking in the East*. London: Routledge and Kegan Paul. (A history of the Chartered Bank of India, Australia and China, an ancestor of the Standard Chatered Bank.)

Spreadsheets

Under investigation.

Seychelles

Name, headquarters, dates, membership

Board of Commissioners of Currency, headquarters Victoria, Mahé, Seychelles, 18 November 1919? to 30 November 1978.

Before establishing its own currency board, Seychelles used Mauritius notes. The government began issuing notes in August 1914 as a World War I emergency measure. In 1919 the government required the note issue to follow currency board rules. On 1 December 1978, the Seychelles Monetary Authority opened, succeeding the currency board. The purpose of establishing the Monetary Authority was to gain greater flexibility in monetary policy. An International Monetary Fund mission had recommended combining the currency board, the Registrar of Banks, and the compilation of monetary statistics in a single entity (Seychelles Monetary Authority annual report, 1978/1979: 23)

Legislation

- Seychelles, Paper Currency Ordinance, 10 August 1914: Established a Board of Commissioners of Currency authorized to issue up to 180,000 Seychelles rupees of notes, redeemable in Indian silver rupees but with a delay of six months from the date of such notes unless determined otherwise by the governor by proclamation. *We do not think the Board of Commissioners of Currency was a currency board during this period, because of the lack of immediate convertibility for the notes.*
- Seychelles, Paper Currency Ordinance, No. 13, 8 November 1919: Authorized a government note issue, on currency board lines, requiring reserves to be all in legal tender silver coins. We do not think any notes were issued.
- Seychelles, Paper Currency (Amendment Ordinance), 19 July 1924: Required reserves to be held 25% in silver coins and 75% in Indian or Mauritius government currency notes. We do not think any notes were issued.
- Seychelles, Paper Currency Ordinance, No. 3, passed 30 May 1928, published 9 June 1928: Authorized the government to issue up to 250,000 rupees of notes and an initial reserve of not more than 25% in Indian paper money, not more than 25% in Indian securities, not more than 25% in British securities, and not more than 25% in Indian silver coins. Reserves beyond the initial amount of the note issue were to be held in Indian silver coins or Indian paper money. Mauritius notes remained legal tender for two years.
- Seychelles, Paper Currency Revised Ordinance, No. 7, passed 5 November 1928, published 17 November 1928: Revised provisions of the earlier 1928 ordinance.
- Seychelles, Paper Currency (Amendment) Ordinance, No. 4, passed 8 April 1929, published 13 April 1929: Made minor changes in wording not affecting meaning.
- Seychelles, Paper Currency Amendment Ordinance, No. 6, passed 7 November 1930, published 15 November 1930: Extended the period during which Mauritius notes would remain legal tender; the end date was to be set by the governor by proclamation.
- Seychelles, Paper Currency (Amendment) Ordinance, No. 3, passed 23 April 1932, published 7 May 1932: Increased maximum note issue from 250,000 rupees to 500,000 rupees; changed reserve requirement to a minimum of 25% in Indian silver coins or paper money, the rest in external securities.
- Seychelles, Paper Currency (Amendment No. 2) Ordinance, No. 19, 23 July 1932: Changed the name of the Currency Note Reserve Fund to the Currency Note Security Fund.
- Seychelles, Coinage Ordinance, No. [??], [date] 1934: Authorized coins of 1, 2, and 5 cents to replace Mauritian coins in circulation. We have not yet seen the text, cited in Central Bank of Seychelles 2006: 21.

- Seychelles, Paper Currency Amendment Ordinance, No. 25, passed 19 September 1934, published 22 September 1934: Shortened from six months to two months the period after which the governor could by proclamation strip Mauritius notes of legal tender.
- Seychelles, Currency Notes Ordinance, No. 2, passed 30 January 1936, published 1 February 1936: A comprehensive revision of the law. Established the pound sterling as the anchor currency. Allowed all reserves to be held as securities, forbidding any to be held in local securities.
- Seychelles, Coinage Ordinance, No. 3, 10 March 1939: Authorized the Currency Commissioners to issue coins and established a Coin Security Fund as backing.
- Seychelles, Treasurer's notification of 3 March 1947 (cited in Central Bank of Seychelles 2006: 17): Announced that notes and coins of Ceylon, the East African Currency Board, India, Mauritius, and South Africa, which had circulated widely during World War II, would cease to be legal tender in Seychelles, other than Mauritian coins for 1-5 cents, and should be exchanged by 31 March 1947.
- Seychelles, Currency Ordinance, No. 12, 7 June 1974: Consolidated previously separate legislation on notes and on coins. Allowed the governor of Seychelles to alter the exchange rate with the approval of the British government (Seychelles was still a colony at the time). Allowed up to 30% of assets to be in the form of securities issued or guaranteed by the Seychelles government.
- Seychelles, Seychelles Monetary Authority Decree, No. [??], [date] 1978: Created the Monetary Authority of Seychelles. We have not yet seen the text, cited in Central Bank of Seychelles (2006: 29).

Exchange rate and currency system

- 11 August 1911-8 June 1928: 1 Seychelles rupee = 1 Indian silver rupee.
- 9 June 1928-31 January 1936: 1 Seychelles rupee = 1 Indian rupee. Seychelles, Paper Currency Ordinance, No. 3, passed 30 May 1928, published 9 June 1928, allowed the government to redeem Seychelles rupee notes either in Indian silver rupees or in Indian paper rupees, at its option. Previously, if we infer correctly, the option belonged to the note holder (Central Bank of Seychelles 2006: 15).
- 1 February 1936-30 November 1978: 1 Seychelles rupee = 1 shilling 6 pence (18 pence) sterling, or 13-1/3 Seychelles rupees = £1 sterling (Seychelles annual report 1951 & 1952: 12). This exchange rate was also the rate of the Indian and Mauritian rupees of the time, which likewise use the pound sterling as their anchor currency.

The 1974 ordinance (section 11) allowed the Commissioners of Currency to charge a commission of up to 2.25%. The margin was in line with International Monetary Fund rules, which considered margins of greater than +/-2.25% around a central rate to be multiple exchange rates.

From the start, the Seychelles rupee was a decimal currency divided into 100 cents, unlike the Indian currency but like the Mauritian rupee of the time. The Seychelles rupee was equal to the Mauritian rupee. The government issued coins initially of 10 cents to 1 Seychelles rupee and notes of 50 cents to 50 Seychelles rupees. Mauritius coins of 1, 2, and 5 cents also circulated (Seychelles annual report 1946: 15). Starting in 1947 the government also issued coins of 1, 2, and 5 cents, but Mauritius coins of those denominations continued to circulate because the local coins were in short supply (Seychelles annual report 1947: 8). The Mauritius small coins were legal tender (Seychelles annual report 1948: 8). By 1950 Mauritius coins were no longer mentioned (Seychelles annual report 1949 & 1950: 8). We infer that they ceased to be legal tender. At various times during the life of the currency board it issued coins ranging from 1 cent to 10 rupees, as well as special commemorative gold and silver coins in 1974 and 1976 (Central Bank of Seychelles 2006: 26, 30).

Financial year; sources of data

The financial year was apparently the calendar year.

We have copies of the relevant sections of all Seychelles colonial annual reports published from 1919 to 1965/1966.

We have financial statements up to monthly frequency from many issues of the *Seychelles Government Gazette* from February 1951 to 1975, although we are missing some issues, including all of 1972; a list of missing months will come later. The monthly statements only show total assets and liabilities (excluding net worth) of the Currency Notes Security Fund and the Coin Security Fund, with no further detail.

In our combined annual data, we are missing data for 1938-1945, 1950-1951, 1971, and 1975-1978. The first annual report of the central bank, which we have not seen, may have some useful data. As noted below, the IMF's *International Financial Statistics* can fill gaps.

Starting with 1971, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Data are annual, then quarterly from 1976. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

The colonial annual reports provide little balance sheet information.

1966: The first explicit mention of a Coins Security Fund, as opposed to only a Currency Notes Security Fund (Seychelles annual report 1965 & 1966: 19). The previous colonial annual report says only that the Currency Notes Security Fund backs notes in circulation and the silver value of coins (Seychelles annual report 1963 & 1964: 22).

Remarks on the income and expenditure statement

None. The colonial annual reports provide no?—see the Treasurer's report? information on income and expenditures.

Remarks on other accounts and data

None.

Deviations from orthodoxy

The currency board began holding a modest amount of local assets starting in 1967. Seychelles, Currency Ordinance, No. 12, 7 June 1974, allowed the governor of Seychelles to alter the exchange rate with the approval of the British government (Seychelles was still a colony at the time) and allowed up to 30% of assets to be in the form of securities issued or guaranteed by the Seychelles government.

Other remarks

We thank Andrew Rosenberg for digitizing the data from the colonial annual reports.

1881: Mauritius Ordinance No. 29 of 1881 provided for establishing a savings bank at Port Victoria, Seychelles (Mauritius annual report 1881: 224).

1934: Mauritius government notes, which had long been used in the Seychelles, ceased to be legal tender on 15 December 1934 (Seychelles annual report 1934: 16).

1939-1946: During World War II, there was a considerable influx of notes and coins from other British colonies around the Indian Ocean. Because of the high demand for currency and the difficulty of obtaining new currency from the United Kingdom, Ceylon, Mauritius, and Indian rupees were made legal tender at par with the Seychelles rupee, and varying rates from 13.20 to 13.25 Seychelles rupee per East African pound and South African pound. By 1946, all the foreign currency except Mauritius coins of 1, 2, and 5 cents had been withdrawn because the local supply of currency was adequate (Seychelles annual report 1946: 15).

1948: The currency board maintained a 110% reserve against notes (Seychelles annual report 1948: 8). The implication is that it did not cover coins. By 1952, though, the colonial annual report states, "The notes in circulation and the silver value of the coinage are more than covered by investments" (Seychelles annual report 1951 & 1952: 12).

1950: Some commercial banks had local agents in Seychelles, although the colonial annual report mentions no names (Seychelles annual report 1949: & 1950: 8). The next report states that the Standard Bank of South African and Barclays Bank (Dominion, Colonial and Overseas) had local agents but no local branches (Seychelles annual report 1951 & 1952: 12).

1954: The highest rate charged by the Savings Bank and agents of commercial banks for telegraphic transfers was 0.625% (Seychelles annual report 1953 & 1954: 13).

1959: Barclays Bank (Dominion, Colonial and Overseas) opened a branch in August 1959 in Victoria, and current accounts in the Government Savings Bank were transferred to it (Seychelles annual report 1959 & 1960: 14; 1961 & 1962: 22). This was the first commercial bank since the Bank of Mauritius closed a branch in 1916 (Seychelles annual report 1963 & 1964: 23). In the intervening period there were at first no banks except the Government Savings Bank. The Treasury bought and sold drafts on London and other places (Seychelles annual report 1932: 18). Sometime after 1937 and by 1946 there was also a Seychelles Agricultural Bank, originally financed from a loan by the British government. It did a purely domestic business (Seychelles annual report 1946: 16). The Government Savings Bank began accepting current deposits in 1948, by Ordinance No. 14 of 1948 (Seychelles annual report 1948: 8).

References

Central Bank of Seychelles. 2006. *History of Paper Currency in the Seychelles*. Victoria, Seychelles: Central Bank of Seychelles.

Seychelles. Annual report. 1919-1965 & 1966. Great Britain (United Kingdom). Colonial Office, *Report for ...* (1919-1930); Colonial Office, *Annual Report on the Social and Economic Progress of the People of Seychelles* (1931-1937); not published 1938-1946 because of World War II; Colonial Office, *Annual Report on Seychelles for the Year ...* (1947-1965 & 1966). London: His / Her Majesty's Stationery Office. (This series was called Colonial Reports until World War II Colonial Annual Reports afterwards; it was suspended during the war for most colonies.)

Seychelles Monetary Authority. Annual report. 1978/1979. *Annual Report on the Period 1st December 1978-31st December 1979* (1978/1979). Victoria, Seychelles: Seychelles Monetary Authority.

Spreadsheets

Annual done; no high-frequency.

Singapore (period of own currency board, separate from Malaya)

Name, headquarters, dates, membership

For the period of the currency board that also served what became Malaysia, see “Straits Settlements/Malaya.”

Board of Commissioners of Currency Singapore (BCCS), headquarters Singapore, 12 June 1967 to 31 December 1970.

The BCCS was established on 18 May 1967 (BCCS annual report 1967: 2). It began acting as a currency issuer on 12 June 1967, succeeding the Board of Commissioners of Currency, Malaya and British Borneo as the currency union between Singapore, Malaysia, and Brunei dissolved (BCCS annual report 1967: 1). Singapore wished to continue with a currency board while Malaysia wished to have a central bank. The Monetary Authority of Singapore, which began operations on 1 January 1971, performed regulatory functions and acted as a banker to the government, including managing foreign reserves other than those used as reserves against currency in circulation. The BCCS continued in operation but from that point onward the monetary system was a central banking system. On 21 June 1973 when the Singapore dollar began to float against other currencies during the breakup of the Bretton Woods system rigid exchange rates. The Monetary Authority of Singapore absorbed the BCCS on 1 October 2002. Until then the BCCS continued to issue currency and to hold foreign reserves equal to 100% or more of currency in circulation, although the exchange rate was still flexible.

Legislation

- Singapore, Currency Act, No. 5, 16 March 1967: Singapore established its own currency board, the Board of Commissioners of Currency Singapore, to succeed the Board of Commissioners of Currency, Malaya and British Borneo, which was dissolving.
- Singapore, Monetary Authority of Singapore Act, 2 September 1970: Established the Monetary Authority of Singapore, making the monetary system one of de facto central banking, although the Board of Commissioners of Currency Singapore continued to exist as a currency-issuing body.

Exchange rate and currency system

The official exchange rate throughout the life of Singapore’s currency board was 0.290299 grams of gold. The Currency Act, 1967 provided that Singapore currency would be backed 100% by external assets including gold, pounds sterling, and other foreign exchange (BCCS annual report 1967: 3). Initially the exchange rate was Singapore \$1 = 2 shillings 4 pence sterling (£0.11-2/3 sterling, or approximately Singapore \$8.57143 = £1 sterling), but after the sterling devaluation of 18 November 1967 Singapore did not devalue and the exchange rate became Singapore \$ 1 = 2 shillings 8-2/3 pence sterling (£0.13-121/360 sterling, or approximately Singapore \$7.34694 = £1 sterling) (BCCS annual report 1967: 6). The pound sterling was, however, the intervention currency. Old Malayan currency devalued with sterling and each old Malayan dollar depreciated from parity with the Singapore dollar to 85.71 cents (BCCS annual report 1967: 6).

The rate of commission was 3/32 of a British pence (penny) per Singapore dollar. (Remember that at the time, 240 pence = £1 sterling.) On 20 November 1967 the rate was revised to 0.1094 pence per Singapore dollar issued. Both rates were equal to approximately 0.33%, whereas the Board of Commissioners of Currency, Malaya and British Borneo had charged a rate of approximately 0.5% up to 10 June 1967 (BCCS annual report 1967: 6). The 1968 annual report of the BCCS, however, says the rate up through 18 March 1968 was 0.3267 pence per Singapore dollar (1.00%); it is unclear when the commission rate was increased. From 19 March 1968 the rate became 0.1633 pence per Singapore dollar (0.50%), and from 1 October 1968 it became 0.50225 Singapore cents per Singapore dollar (0.50225%). From 9 November 1968 the commission became 1 cent per Singapore dollar (1%) (BCCS annual report 1968: 6). Brunei left its commission rate unchanged at least for this last change (BCCS annual report 1968: 6).

Malaysia, Singapore, and Brunei adopted a system of free interchangeability of currencies (that is, no commission fees) among themselves starting on 12 June 1967 (BCCS annual report 1967: 7).

The Singapore dollar was a decimal currency, divided into 100 cents.

Starting on 12 June 1967 the BCCS notes issued of Singapore \$1 to \$1,000. It did not issue its first coins, of 1 cent to Singapore \$1, until 20 November 1967; until then the Board of Commissioners of Currency, Malaya and British Borneo continued to make coins available (BCCS annual report 1967: 4).

Financial year; sources of data

The financial year of the Board of Commissioners of Currency Singapore was the calendar year.

We have all the annual reports of the BCCS from 1967 to 1970 and beyond.

Monthly data are available from the International Monetary Fund's *International Financial Statistics* starting in March 1969. Monthly data currently available on the Web site of the Monetary Authority of Singapore do not begin until after the currency board period. [We have yet to check the government gazette.]

Starting with 1967 for annual data and March 1969 for monthly data, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority. (IMF annual data actually start in 1964; before 1967, though, they are for the Singapore element of the Board of Commissioners of Currency, Malaya and British Borneo, not for the BCCS.)

Remarks on the balance sheet

None.

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

None.

Deviations from orthodoxy

None.

Other remarks

1967: After the devaluation of sterling, the government of Singapore transferred Singapore \$40 million from its Consolidated Fund into the Currency Fund to restore the Currency Fund's foreign reserves to 100% (BCCS annual report 1967: 8).

1969: Old Malayan currency ceased to be legal tender from 16 January 1969 (BCCS annual report 1968: 7; 1969: 6). It continued to be redeemed by banks at 2 shillings 4 pence for coins over 10 cents and for notes. Coins of 1 cent, 5 cents, and 10 cents were redeemed at par (BCCS annual report 1971: 5).

1973 (after currency board period): The interchangeability agreement with Malaysia in effect ceased when Singapore floated its currency on 21 June 1973, although the Board of Commissioners of Currency continued to operate an exchange booth offering the 1:1 rate without commission until 23 June 1973 and the Commissioners and Malaysia's central bank continued to repatriate each other's currencies through 7 August 1973. The interchangeability agreement with Brunei continued (BCCS annual report 1973: 8).

References

BCCS. Annual report. Board of Commissioners of Currency, Singapore. 1967-1973. *Report for the Period 12th June, 1967 to 31st December, 1967* (1967); *Report for the Year Ended 31st December,*

1968 (1968); *Annual Report and Accounts ...* (1969-1973). Singapore: Board of Commissioners of Currency, Singapore.

Spreadsheets

Annual and high-frequency done.

South Arabian Currency Authority / Southern Yemen Currency Authority

Name, headquarters, dates, membership

The South Arabian Currency Authority was established in 1964 and began issuing currency on 1 April 1965. In June 1968 its name was changed to the Southern Yemen Currency Authority. The headquarters of the Currency Authority was Crater, Aden. (The country was later called the People's Republic of South Yemen, or, more commonly, Southern Yemen; it is now part of united Yemen). Crater was originally a separate town but is now an area within the city of Aden.

The initial members of the Currency Authority were Aden and the Western Aden Protectorate, which together constituted the South Arabian Federation from 1964 to November 1967. The Currency Authority's currency also circulated in the Eastern Aden Protectorate, the remainder of the territories that later became part of Southern Yemen; it included the separate states of Qaiti, Kathiri and Maha, Socotra, and others (SYCA annual report, 1967/1968: 7). The board was established to succeed the currency of the East African Currency Board, whose members were quickly approaching independence and other changes. In August 1968, following a revolution, a change in the law governing the Currency Authority reduced its minimum foreign reserve ratio from 70% to 50%, but its balance sheet at the end of 1968 shows that it did not immediately use the new authority (SYCB annual report, 1967/1968: 24). By 1969 the Currency Authority was operating as a central bank ([cite 1969 annual report here if it exists and we can obtain it]).

Legislation

- Federation of South Arabia, Federal Currency Law, 1964: Established the South Arabian Currency Authority.
- People's Republic of South Yemen, Law No. 15, August 1968: Converted the quasi currency board into a monetary institute by widening its discretionary powers.

Exchange rate and currency system

The exchange rate was 1 South Arabian dinar (from June 1968, or perhaps August 1968, 1 Southern Yemen dinar) = £1 sterling. The South Arabian dinar replaced the East African shilling, issued by the East African Currency Board, of which Aden was a member. The East African shilling was equal to the British shilling, and the East African pound, equal to 20 East African shillings, was equal to the pound sterling. In August 1968, Southern Yemen passed a law that established a gold parity of 2.1328 grams. In practice, the parity was inoperative. When the United Kingdom devalued the pound sterling on 18 November 1967 from US\$2.80 to \$2.40, Southern Yemen followed on 20 November 1967 (SYCB annual report 1967/1968: 20, 24).

The Currency Authority charged commission fees of 0.125% for exchanges into or out of sterling for licensed banks, and 0.25% for the public. No transactions with the public ever took place, though (SYCB annual report 1967/1968: 30).

The South Arabian dinar was a decimal currency, divided into 1,000 fils. The Currency Authority issued coins of 1 to 50 fils and notes of 250 fils (0.250 dinars) to 10 dinars.

Financial year; sources of data

The Currency Authority's financial year was the calendar year.

We have copies of the Currency Authority's annual reports except 1969. We still need to check the 1969 report, if it exists, to see how long the Currency Authority continued to operate more or less like a currency board in practice even after the law increased its discretionary power. It may be at LSE, Oxford, Edinburgh, or Durham.

Annual reports contain monthly statistics on currency in circulation and some other statistics from April 1965 onward. Other high-frequency data may exist in the government gazette, which we did not search because we do not read Arabic.

The International Monetary Fund's *International Financial Statistics* database has no data on the balance sheet of the monetary authority before 1990, when North Yemen and Southern Yemen united, although paper copies of the publication have data starting [dates to come].

Remarks on the balance sheet

Unlike many currency boards, the South Arabian Currency Authority had paid-in capital. The Authority's authorized capital was 500,000 South Arabian dinars, of which half was to be subscribed and paid by the government at the request of the Authority (presumably when the Authority opened for business, although we still need to see the 1965 annual report to confirm this point) and the rest was to be paid at such time as the government and the Authority agreed (SACA annual report 1966: 23).

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

The Trust Fund was a fund established by the East African Currency Board from its profits, used mainly to pay the capital subscriptions of member countries when they joined international financial institutions. As a member territory, Aden had a share in the Trust Fund.

The annual report of the Currency Authority contains information on bank balance sheets.

Deviations from orthodoxy

1965: Like the East African Currency Board at the time, which it succeeded, the South Arabian Currency Authority was from the start allowed to hold substantial domestic assets. The maximum was 30% of total assets. In practice, the Authority only held a small, frozen stock of domestic assets, and it seems to have behaved like a currency board at least through 1968.

1968: The annual report says that "bankers' balances were artificially increased from March 1968 onwards by the direct action of the Authority," which I take to mean an increase of the minimum required reserve ratio for commercial banks (SYCB annual report, 1967/1968: 27).

In August 1968, Southern Yemen passed a law that reduced the Currency Authority's minimum foreign reserve ratio to 50%. The Currency Authority's balance sheet at the end of 1968 shows that it had not taken advantage of the new latitude. The law also allowed the Currency Authority to hold foreign currencies other than sterling and gold, and raised from 6% to 8% the maximum reserve requirement that commercial banks might be compelled to hold with the Currency Authority (SYCB annual report, 1967/1968: 24).

Other remarks

1965: East African Currency Board currency remained legal tender in South Arabia (Southern Yemen) for three months after the new currency began circulating (East African Currency Board annual report 1965: 40).

1966: The annual report contains statistics on commercial bank assets and liabilities (SACA annual report 1966: 13). (Statistics may start in an earlier annual report that we have not seen.)

A clearinghouse opened on 3 July 1966 under the supervision of a superintendent appointed by the Currency Authority (SACA annual report 1966: 15).

1967: An unusually large increase in currency in June 1967 because of the issue of 2.5 million dinars by the British military authorities during a period of civil unrest (SYCB annual report 1967/1968: 32).

During the civil unrest of 1967, banks were inaccessible in Aden for part of the year and were all closed outside Aden for a considerable time (SYCA annual report 1967/1968: 22).

During the time Aden belonged to the East African Currency Board, its share of profits was as follows: 1958/1959: 7.3%; 1959/1960: 11.5%; 1960/1961: 12%. The currency conversion to the new South Arabian currency showed that East African currency circulating in Aden was in fact 24.5% of the

total. After a negotiation, the East African Currency Board paid South Yemen a sum of £2,625,000 sterling in full satisfaction of all South Yemen's claim's on the Board. Thereafter Southern Yemen ceased to be a constituent territory of the East African Currency Board (SYCB annual report 1967/1968: 28).

References

- SACA. South Arabian Currency Authority. Annual report. 1964/1965-1966. *First Annual Report* (1965); *Report for the Year 1966* (1966). Crater, Aden: South Arabian Currency Authority.
- SYCA. Annual report. Southern Yemen Currency Authority. 1967/1968. *Report for the Years 1967 and 1968*. Crater, Aden: Southern Yemen Currency Authority. (There should also be a 1969 report that we have not seen, which may have information on the Currency Authority's transition to a central bank.)

Spreadsheets

Annual done; no high-frequency data seem available.

Southern Rhodesia Currency Board / Central Africa Currency Board

Name, headquarters, dates, membership

There were two currency boards here.

The first board was the Southern Rhodesia Currency Board, headquarters Salisbury, Southern Rhodesia (now Harare, Zimbabwe). It was established on 3 January 1939; began issuing coins on 8 July 1939 (we think; see remarks below); began issuing notes; ceased issuing notes and coins 11 March 1954; succeeded on 12 March 1954 by the Central African Currency Board (see below).

Before the Southern Rhodesia Currency Board came into existence, Southern Rhodesia issued its own coins but British coins were also legal tender, and notes were issued by two commercial banks, Barclays Bank and the Standard Bank of South Africa. The reason for establishing the currency board was to garner seigniorage revenue for the government. Initially the only member of the Board was Southern Rhodesia (now Zimbabwe). Northern Rhodesia (now Zambia) and Nyasaland (now Malawi) later entered into agreements with Southern Rhodesia that enabled them to gain seigniorage from the circulation of the Board's currency. The Board's first annual report is unclear about when the Board took over responsibility for issuing coins from the government of Southern Rhodesia. The Board was constituted on 3 January 1939 and established its Currency Fund on 1 April 1939. British coins ceased to be legal tender in Southern Rhodesia on 8 July 1939, so we tentatively date the Board's existence as an issuer of currency from then. (British coins remained legal tender in Northern Rhodesia and Nyasaland through 31 December 1954.) The Board issued its first notes in Southern Rhodesia on 1 March 1940, in Nyasaland on 8 June 1940, and in Northern Rhodesia on 1 November 1940.

The second currency board was the Central Africa Currency Board, headquarters Salisbury, Southern Rhodesia (now Harare, Zimbabwe). It was established and began issuing currency on 12 March 1954, as the successor to the Southern Rhodesia Currency Board; ceased issuing currency on 31 March 1956; and was succeeded on 1 April 1956 by the Bank of Rhodesia and Nyasaland, a central bank. The Central African Currency Board was an explicitly federal institution, which put Northern Rhodesia (now Zambia) and Nyasaland (now Malawi) on an equal footing with Southern Rhodesia (now Zimbabwe) (CACB annual report 1954: 1).

Legislation

- Southern Rhodesia, Coinage and Currency Act, No. 32, 18 November 1938: Established the Southern Rhodesia Currency Board.
- Southern Rhodesia, Coinage and Currency Amendment Act, No. 23, 4 December 1942: allowed the currency board to hold up to 7% of its assets in securities of Southern Rhodesia and up to 3% in securities of Northern Rhodesia. Total reserves were 110%, so the principle of 100% foreign reserve backing was effective.
- Southern Rhodesia, Coinage and Currency Amendment Act, No. 2, 7 March 1947: Raised the limit of domestic securities allowed to be held as assets to 10% for Southern Rhodesian securities, 7% for Northern Rhodesian securities, and 3% for Nyasaland securities.
- Federation of Rhodesia and Nyasaland, Coinage and Currency Act, No. 5 of 1954: Converted the Southern Rhodesia Currency Board into the Central African Currency Board, with participation by Northern Rhodesia (now Zambia) and Nyasaland (now Malawi).
- Federation of Rhodesia and Nyasaland, Bank of Rhodesia and Nyasaland Act, No. 2, March 1956: Established the Bank of Rhodesia and Nyasaland, a central bank, to replace the Central African Currency Board.

Exchange rate and currency system

The exchange rate throughout the existence of the Southern Rhodesia Currency Board and its successor the Central Africa Currency Board was Southern Rhodesia / Central African £1 = £1 sterling.

The Southern Rhodesia Currency Board charged a commission fee of 0.25% for exchanges into or out of pounds sterling, with a minimum amount of £10,000 (SRCB annual report 1939/1940: 1). When the Board expanded its operations to Northern Rhodesia and Nyasaland, the fee for Northern Rhodesia was 0.25% and the fee for Nyasaland was 0.5% (SRCB annual report 1941: 2). The Central African Currency Board continued the fees (Central Africa Currency Board annual report 1954: 2)

Like the United Kingdom at the time, the territories that used Southern Rhodesia and later Central African currency used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated “s.”) = 240 pence (or pennies, abbreviated “d.” from the Latin *denarius*, an ancestor of the penny).

The Southern Rhodesia Currency Board issued bronze and silver coins of ½ pence to 2 shillings 6 pence, and notes of 5 shillings to £10. Originally, coins for threepence, sixpence, one shilling, two shillings (a florin), and 2 shillings 6 pence (a half-crown) were silver. During World War II, the Southern Rhodesia Currency Board reduced the silver content of those coins from 92.5% to 50% in light of the world shortage of silver. It began issuing the new coins in January 1944. On 1 January 1944 the Board began issuing 5-shilling notes to reduce demand for silver coins (SRCB annual report 1944: 1), especially the half-crown; previously the lowest denomination of note was 10 shillings. In 1947 the Board substituted cupro-nickel alloy for silver in coins. Cupro-nickel coins entered circulation in Nyasaland on 13 June 1947 and in Northern and Southern Rhodesia on 10 November 1947 (SRCB annual report 1947: 1). The Central Africa Currency Board continued to use the note and coin designs of the Southern Rhodesia Currency Board and issued no distinctive designs of its own (CACB annual report 1954: 1-2). Northern Rhodesia and Nyasaland accepted British coins as legal tender until demonetizing them on 1 January 1955 (CACB annual report 1955: 1).

Financial year; sources of data

The financial year for both the Southern Rhodesia Currency Board and the Central Africa Currency Board ran from April 1 to March 31.

We have copies of all the two boards’ annual reports.

We have examined some issues of the government gazette to see whether high-frequency data are available and have found nothing.

The International Monetary Fund’s *International Financial Statistics* database contains no data of the balance sheet of the monetary authority for the Southern Rhodesian Currency Board or the Central African Currency Board.

Remarks on the balance sheet

Like the balance sheets of some other currency boards, those of the Southern Rhodesia Currency Board and the Central Africa Currency Board showed some details elsewhere in its report, such as in the accounts of the Currency Fund, rather than listing them directly on the balance sheet as most monetary authorities today do. Some of the data for our standardized balance sheet come from elsewhere than the original balance sheet.

1940: The act creating the Southern Rhodesia Currency Board specified that not more than 10% of the remainder of the Southern Rhodesia Currency Fund, which provided reserves against currency in circulation, should be invested in the securities of any one borrower. The Board inherited local securities exceeding this amount from a predecessor fund to provide backing for Southern Rhodesian coinage, and decided not to sell the securities given that it had not itself invested in them (SRCB annual report 1939/1940: 2).

1942: The Board assumed liability as of 1 March 1942 for notes of Barclays Bank and the Standard Bank of South Africa still outstanding as of the close of business on the previous day (SRCB annual report 1942: 1). The notes included a total of “half bank notes,” which we assume were £1 notes cut in half to make 10-shilling notes during a period when coins were in short supply.

Remarks on the income and expenditure statement

The annual report contains a Summary of Transactions of “Income Account” (1940-1956), a Summary of Receipts and Payments on “Income Account” (1940-1944), and a Statement of Debit and Credit Balances of “Income Account” (1940 only). We use the Summary of Transactions of “Income Account” because it is the only continuous series.

Remarks on other accounts and data

The annual reports contain the following additional accounts, whose balances may appear as entries in the balance sheet.

Southern Rhodesia Currency Fund / Central Africa Currency Fund: Assets held against currency in circulation. The Fund included a Depreciation Reserve Account to show the difference between the cost and the current value of the Board’s investments and the metal content of coins. We included those items along with the other items.

Special Reserve (1954-1956): Expenses connected with establishing a central bank to replace the Central Africa Currency Board.

Deviations from orthodoxy

The Southern Rhodesia Currency Board inherited some Southern Rhodesia securities from a predecessor fund to provide backing for Southern Rhodesian coinage, and decided not to sell the securities given that it had not itself invested in them (SRCB annual report 1939/1940: 2). Other than British and Southern Rhodesian securities, the Board invested only in a small amount of South African securities, which ceased during the 1949 financial year. Southern Rhodesia’s Coinage and Currency Amendment Act, 1947, required the Board if required by any of the three governments it served to invest in their securities not more than 20% of the Southern Rhodesia Currency Fund (reserves for the currency). The maximum percentage allowed was 10% of the Fund in securities of Southern Rhodesia, 7% in those of Northern Rhodesia, and 3% in those of Nyasaland (SRCB annual report 1947: 1). The Board’s investments in local securities were all in Southern Rhodesian securities.

Other remarks

When the Southern Rhodesia Currency Board began, Barclays Bank and the Standard Bank of South Africa had long issued notes. The Board was intended to be a monopoly issuer of currency, so Southern Rhodesian law compelled the banks to cease issuing notes.

1943: Starting this year, the annual report shows notes in circulation by Barclays Bank and the Standard Bank of South Africa. The Board assumed liability for their remaining notes outstanding.

1944: The annual report begins to show bank holdings of Southern Rhodesia Currency Board currency. It also shows the distribution of revenue to Southern Rhodesia, Northern Rhodesia, and Nyasaland, which was based on the monthly average amount of currency issued in each territory after adjusting for bank transfers of currency, but excluding any adjustment for the transport of currency across territories by other persons. [This implies monthly figures are available. We need to recheck the government gazette to see if they were published.].

From 1943 to 1945, the British government allowed silver bullion to be acquired in London only under “Lend-Lease” terms, meaning that acquirers of silver had to undertake to return it ounce for ounce when called upon (SRCB annual report 1946: 2).

1950: The annual report starts to show estimates of currency held by the public in each of its three constituent territories rather than just an overall figure.

References

CACB. 1954-1956. Rhodesia and Nyasaland (Federation). Central African Currency Board. Annual report. *First [Second, Third] Report of the Central African Currency Board*. Salisbury, Southern Rhodesia: Central African Currency Board (1954-1955); Government Printing and Stationery Office (1955-1956). Unless indicated otherwise, facts mentioned in the text will be found in the report covering the financial year for which they are mentioned. The text above lists financial years under

the calendar years they end. After the first two years, the printer is listed in abbreviations at the top left of the title page.

SRCB. Southern Rhodesia Currency Board. Annual report. 1940-1953. *First Report of the Southern Rhodesia Currency Board, Covering the Period Ended 31st March, 1940* (1940); *Second [etc.] Report of the Southern Rhodesia Currency Board, Year Ended 31st March,* (1941-1953). The Seventh, Ninth, Tenth and Eleventh reports have the word “Annual” in their titles, but the rest do not. Salisbury, Southern Rhodesia: Government Stationery Office (1940-1952); Southern Rhodesia Currency Board (1953). The text above lists financial years under the calendar years they end. The printer is listed in abbreviations at the top left of the title page.

Spreadsheets

Annual done; no high-frequency data seem available.

Straits Settlements / Malaya (now Singapore and Malaysia)

Name, headquarters, dates, membership

For the currency board that only served Singapore starting in 1967, see “Singapore.”

- 1 May 1899-20 October 1938: Board of Commissioners of Currency, Straits Settlements, headquarters Singapore. (*Not a currency board during the period 3 October 1903-28 January 1906.* We list financial statements for that period even so.) The Straits Settlements currency board was established as part of a move from the silver standard to the gold standard.
- 21 October 1938-22 February 1942: Board of Commissioners of Currency, Malaya, headquarters Singapore (Straits Settlements annual report 1938: 75).
- 23 February 1942-4 September 1945: Period of Japanese occupation during World War II. *Not a currency board system during this period.* The Japanese issued occupation currency.
- 5 September 1945-31 December 1951: Board of Commissioners of Currency, Malaya (also known less formally as the Malayan Currency Commission), headquarters Singapore. The currency board officially resumed operations on 1 April 1946 (Malayan Union, Ordinance No. 5 of 1946; Singapore, Ordinance No. 4 of 1946; both cited in Board of Commissioners of Currency, Malaya, annual report 1948: 1). [The annual report fails to list the precise date, which we believe to be 1 April, so we will try to get another sources, such as a newspaper, establishing the date.]
- 1 January 1952-11 June 1967: Board of Commissioners of Currency, Malaya and British Borneo, headquarters Singapore (moved to Kuala Lumpur, Malaya [later Malaysia] from July 1962) (BCCMBB annual report 1962: 3). The board dissolved because Malaysia wanted to have central banking. Singapore and Brunei established successor currency boards.

Malayan currency was used in Sarawak after World War II and North Borneo and Sarawak currency was gradually withdrawn; see the entries on those territories. “

In 1953 notes of the Board of Commissioners of Currency, Malaya and British Borneo, dated not earlier than 1 July 1941, became legal tender. The notes were of denominations of 1 cent to Malayan \$10,000. British North Borneo Chartered Company notes ceased to be legal tender from 1 September 1953, but remained redeemable for their face value in Malayan currency when deposited at banks or treasuries (North Borneo annual report 1953: 36).

Legislation

- Straits Settlements, Currency Note Ordinance, No. 8, 2 September 1897: Established a government note issue.
- Straits Settlements, Currency Note Ordinance, No. 4, 28 February 1899: Made changes to the procedures of the currency board.
- Straits Settlements, Ordinance No. 14, 22 September 1899: In effect prohibited note issue by banks by giving the government a veto of it.
- Straits Settlements, Currency Note Ordinance 1899 Amendment Ordinance, 3 July 1903; United Kingdom, Straits Settlements (Coinage) Order, 25 June 1903; Straits Settlements, Ordinance No. 13, 3 July 1903; Straits Settlements, Ordinance No. 24, 25 September 1903; Straits Settlements, governor’s proclamation of 2 October 1903: Established what we would now call a managed float as a transitional measure from the previous silver standard to a gold standard. The legislation mentioned is reprinted in United States Commission on International Exchange (1903: 291-297).
- Straits Settlement, Currency Note 1899 Amendment Ordinance, No. 3, 17 March 1905; Currency Note 1899 Amendment Ordinance, No. 1, 29 January 1906: The 1905 ordinance provided that the government might establish an exchange rate for the Straits dollar against the pound sterling. To allay an exchange-rate panic aggravated by statements by the governor, by the January 1906 ordinance the Straits Settlements established a gold exchange standard based on the pound sterling, in place of the purer gold standard originally intended. The exchange rate at which the

Straits Settlements adopted the gold standard was in harmony with recent market rates for the Straits dollar.

- Straits Settlement, Currency Note 1899 Amendment Ordinance No. II, No. 5, 16 February 1906: Made changes regarding payment of profits of the Depreciation Fund.
- Straits Settlement, Currency Note 1899 Amendment Ordinance No. III, No. 23, 14 September 1906: Until this order, the exchange rate was technically only a limit of depreciation, leaving room for appreciation, but the currency was not appreciated.
- Straits Settlement, Currency Note 1899 Amendment Ordinance No. IV, No. 26, 22 October 1906: Substituted language about “current” coin for previous language about “silver” coin.
- United Kingdom, Straits Settlement (Coinage) Order, 22 October 1906, reprinted in US Mint annual report, 30 June 1907: 201; proclamation effective 23 November 1906, cited in King (1957: 13); Ordinance No. 27, November 1908, reprinted in US Mint annual report, 30 June 1910: 242-4: The 1908 ordinance allowed the currency board to hold gold coin, not just silver coin as before. The monetary standard remained a sterling exchange standard in place of the pure gold standard originally envisioned, in part because of the influence of a run on the Straits Settlement currency board in 1907-1908, arising from the problems of local banks. The currency board responded by selling pound sterling assets in London (Lee 1986: 15). Doing so proved to be satisfactory to all parties involved. In principle, note holders could redeem notes in gold in London, but in practice few wanted gold rather than sterling.
- Straits Settlements, Currency Ordinance, No. 15, 26 September 1923: The obligation to redeem currency in gold on demand in Singapore (though not in London), which was not much used anyway, ceased during the First World War. Legally the pound sterling remained convertible into gold and could be exported, but the risk to shipping from German submarines made the cost of shipment prohibitive, and the British government refused to include private shipments of gold in its war-risk insurance scheme, so from August 1914 or so the United Kingdom was in effect off the gold standard. The Straits Settlement currency board ceased paying out gold in 1917 (Lee 1974: 13). The ordinance of 1923 retrospectively recognized that sterling rather than gold was the anchor.
- Straits Settlements, Currency Ordinance, No. 23 of 1938, entered into force 21 October 1938 by *Straits Settlements Gazette* Notification No. 2999, 1938: Established the Board of Commissioners of Currency, Malaya, to bring in peninsular Malaya as a full partner in the currency board, succeeding the Straits Settlements Commissioners of Currency. The Malayan dollar replaced the Straits dollar as the unit of account at Malayan \$1 = Straits \$1. The ordinance also limited the legal tender of the Straits silver dollar, which previously had been unlimited (King 1957: 15).
- Japanese military administration of Malaya and Singapore, decree law of 25 January 1942, published 23 February 1942, cited in Fujita (2003: 18) and partly reprinted in Bánai (1974: 70): Confirmed the end of the currency board system, which had effectively ended with the Japanese occupation.
- British Military Administration, Malaya, Military Administration Proclamation, No. 1, 15 August 1945: Restored laws in effect before Japanese occupation, including currency laws.
- Malayan Union, Ordinance No. 5 of 1946; Singapore, Ordinance No 4 of 1946: Allowed the currency board to resume operations on 1 April 1946.
- Malaya British Borneo Currency Agreement, 1950: Extended the currency board to the island of Borneo.
- Singapore, Ordinance No. 42 of 1951: [Was this the implementing legislation for the 1950 agreement?]
- Malaya British Borneo Currency Agreement, 1960 (Malaya, Currency Act, No. 278 of 1960; Singapore, Currency Ordinance, No. 51 of 1960, entered into operation 1 January 1961): Allowed the currency board to issue up to Malayan \$300 million without backing in foreign assets. The board never took advantage of the provision (Lee 1974: 18).

- The currency board can be said to have dissolved in stages, but Singapore, Currency Act, No. 5, 16 March 1967, can be said to mark the end. It established a purely local currency board in Singapore.

Exchange rate and currency system

- 1 May 1899-2 October 1903: Straits \$1 = 1 Spanish silver peso. The Spanish silver peso, also known to English speakers as the Spanish dollar, contained 24.3[?] grams of fine (pure) silver, and its standard was imitated by a number of former Spanish colonies in Latin America, whose coins were likewise accepted in trade; those of Mexico were especially widely used. The Straits Settlements began issuing its own coins in 1871, by the act of 1867 (Chalmers 1893: 387). Legislation of 1890 consolidated but did not change the essentials of local law (United Kingdom, Order in Council of 21 October 1890, effective 1 January 1891). Singapore, Ordinance No. 2, 5 February 1891, allowed the governor to forbid the circulation of any or all foreign coins by decree. United Kingdom, British Dollar Order, 2 February 1895, ordered the coinage of a British silver dollar containing 374.4 grains (24.2613g) fine silver. United Kingdom, Labuan (Coinage) Order, 2 February 1895, provided for the Mexican silver dollar, containing approximately 24.436g of fine silver, to be the standard coin of Labuan from 1 April 1895. The Straits dollar did not become a legally separate unit until created by United Kingdom, Straits Settlement (Coinage) Order, No. 532, 25 June 1903. It was defined so as to have nearly the same silver content as the Mexican silver dollar, or Straits \$1 = 373.4 grains (24.2613g) silver. The Straits dollar was a decimal currency.
- 3 October 1903-28 January 1906: *Not a currency board during this period.* Managed float, generally appreciating against silver. The monetary system was therefore not a currency board during this period. Agitation by local (mainly British) businessmen in Singapore, disconcerted by the persistent depreciation of silver against gold, led the British government to appoint a committee on currency reform. In accord with the committee's recommendation, the Straits Settlements floated as an intermediate step from switching to a silver standard to a gold standard. At the same time, the government placed new Straits silver dollars in circulation and prohibited its exportation, as well as the importation of British colonial and Mexican silver dollars was also prohibited. At 374.4 grains (24.2613g) pure silver, the Straits dollar had approximately the same silver content as the Mexican silver dollar (peso). Straits Settlements, governor's proclamation of 24 August 1904 (reprinted in US Mint annual report, 30 June 1904: 200-1) demonetized British, Mexican, and Hong Kong silver dollars effective 1 September 1904. Straits Settlements, order in council of 4 November 1904, reprinted in US Mint annual report, 30 June 1905: 178, delayed this date until 4 February 1905, that is, after the Chinese New Year, for British North Borneo, Labuan, and Sarawak.
- 29 January 1906-1917: Straits \$1 = UK 2 shillings 4 pence (UK£0.11-2/3) (= 0.854278g gold) (Straits \$60 = UK£7). Went onto the gold /sterling standard.
- 1917-20 October 1938: Straits \$1 = UK 2 shillings 4 pence (UK£0.11-2/3) (Straits \$60 = UK£7). The obligation to redeem currency in gold on demand in Singapore (though not in London), which was not much used anyway, ceased during the First World War. Legally the pound sterling remained convertible into gold and could be exported, but the risk to shipping from German submarines made the cost of shipment prohibitive, and the British government refused to include private shipments of gold in its war-risk insurance scheme, so from August 1914 or so the United Kingdom was in effect off the gold standard.. The Straits Settlement currency board ceased paying out gold in 1917 (Lee 1974: 13).
- 21 October 1938-22 February 1942: Malayan \$1 = UK 2 shillings 4 pence (UK£0.11-2/3) (Malayan \$60 = UK£7). Malaya joined the Straits Settlements in a currency board, to gain seigniorage. Previously Malaya did not receive any seigniorage from Straits Settlements notes

circulating in Malaya. When the currency union began, the Malayan dollar replaced the Straits dollar as the unit of account at Malayan \$1 = Straits \$1.

- 23 February 1942-4 September 1945: ***Not a currency board during this period.*** During Japanese occupation during World War II, the currency board ceased redemption, so the currency board system in effect ceased.
- 5 September 1945-11 June 1967: Malayan \$1 = UK 2 shillings 4 pence (UK£0.11-2/3) (Malayan \$60 = UK£7). Did Malaya register a gold parity with the IMF in this period? On 18 November 1967 the United Kingdom devalued the pound sterling against gold and the U.S. dollar. The Malayan dollar maintained its exchange rate with the pound sterling (BCCMBB annual report 1967: 5).

Currently we have no information on commission fees and minimum exchange amounts before 1952. Under Singapore [Malaya?], Currency (Conversion) Regulations, 1952, the minimum for conversion starting in 1952 was £10,000 or Malayan \$100,000, and the Commissioners were allowed to charge a commission fee of 1/8 British pence per Malayan dollar (BCCMBB annual report 1952: 3). Previously the commissions had been 1.4 British pence per Malayan dollar redeemed and 3/16 pence for every Malayan dollar issued (BCCMBB annual report 1952: 4).

The Straits and Malayan dollars were decimal currencies, divided into 100 cents. The currency board issued coins [or were they rather issued by the government?] of ¼ cent to \$1 and notes of 10 cents to \$1,000.

Financial year; sources of data

The Commissioners switched from the calendar year to a financial year of 1 October to 30 September starting with the 1923/1924 financial year. [We still need to get the 1923 report to see if it only covers 9 months.]

[Discussion of annual reports and government gazette to come in a later version.]

We have no currency board annual reports before 1921, nor any from 1938-1947. Malayan currency reports exist for 1938, but we are not sure about the subsequent year through 1947; certainly for some of the war years there is no report. We have 1948-1968 except 1950. So, we lack 1899-1920; 1923; 1938-1947 (probably 1941-1945 do not exist, but 1938 definitely does, and 1939, 1940, 1946, and 1947 may exist); and 1950. It appears that 1968, which we have, was the last annual report, but we need to check whether there were any obscure later issues.

We have colonial annual reports from 1926-1938.

The *Straits Settlements Gazette* published certain data monthly. We are missing some issues.

The International Monetary Fund's *International Financial Statistics* database does not cover the Straits Settlements.

Remarks on the balance sheet

To come.

Remarks on the income and expenditure statement

On 1 November 1925 the Commissioners of Currency paid Straits \$20 million of their surplus to the government because their financial position was so strong (1925: 6). Page 7 shows how the situation went from deficit in 1913-1916 to surplus from 1917 onward.

Concerning income and expenditure, the 30 September 1937 annual report, p. 6, remarks, "It is to be observed, however, that payment is not made by the Currency Commissioners for rent of premises, nor for supervision by senior officers of Government." The Commissioners did pay for lower-level staff and all expenses connected with issuing notes. [Were coins a liability of the government? We think so.]

In anticipation of an agreement with North Borneo and Sarawak to join the Board, starting with 1947 the Board set aside a share of its surpluses for eventual distribution to those governments (BCCM annual report 1949: 2). The seigniorage distributed in 1952 was: Malaya, 60.85%; Singapore, 27.15%;

Sarawak, 3.25%; North Borneo, 2.00%; Brunei, 0.75%; undistributed, 6.00% (BCCMBB annual report 1952: 7). In 1953 the ratios became Malaya, 61.16%; Singapore, 27.28%; Sarawak, 4.89%; North Borneo, 4.42%; Brunei, 2.25% (BCCMBB annual report 1953: 4). The Board reduced cover for pre-invasion notes by Malayan \$1 million and distributed it to the pre-1952 governments according to the 1950 distribution agreement: Malaya, 76.90%; Singapore, 22.25%; Labuan, 0.10%; Brunei, 0.75% (BCCMBB annual report 1953: 5).

Remarks on other accounts and data

The currency board annual reports show amounts of telegraphic transfers, which perhaps should be included in the spreadsheet. They also show highest and lowest exchange rates for sterling, the Indian rupee, and bar silver. Annual reports at least from 1925 (p. 5) show gross, net, and active circulation of currency notes. Net circulation is gross circulation minus government treasury holdings and active circulation is net circulation minus bank holdings.

Deviations from orthodoxy

To come.

Other remarks

There was a government issue of \$1 notes before the currency board. [Details will come subsequently if we can obtain them, for instance from a note catalog.]

Commercial banks continued to issue notes until their charters lapsed and were renewed without note-issuing powers. The currency board became the monopoly issuer of notes apparently about 29 September 1909 ([citation to come]).

The lists of securities show the Commissioners held some Straits securities, and I need to note these when I do the spreadsheet. After the mid 1930 when the last issue matured the Commissioners bought no more local securities. There is no listing for them in the 30 September 1936 report.

After the United Kingdom abandoned the gold standard on 21 September 1931, prices of sterling securities temporarily fell. The Commissioners' report for the year ending 30 September 1931 therefore provided a reserve of nearly Straits \$8 million reflecting write-downs to market value of securities. Also, the financial statement for that year still values gold at the old sterling parity even though its market value was 25% higher (SSCD 30 September 1931: 6). Singapore maintained the previous exchange rate with the pound sterling and therefore depreciated against gold (pp. 1-2)

After World War II, the Malayan Currency Commission (as the Board of Commissioners of Currency, Malaya was also sometimes called) was reconstituted in 1946 by Ordinance No. 5 in the Malayan Union and Ordinance No. 4 in Singapore (BCCM annual report 1948: 1).

In 1948, the Malayan Union and Singapore issued proclamations declaring that all notes issued before World War II would cease to become legal tender. It remained possible afterwards for noteholders to exchange old notes for new one at the offices of the Currency Commissioners. Of Malayan \$221,974,005.30 of notes outstanding on 15 February 1942 [just before the Japanese started issuing invasion currency?—check], Malayan \$12,831,407.76 remained outstanding at the end of 1948 (BCCM annual report 1948: 1-2). Pre-invasion notes were demonetized on 31 August 1948 (BCCMBB annual report 1956: 3).

After World War II, because of the high cost of silver, minting of silver coins for Malaya and Singapore was small, and it ceased before 1948. As a temporary measure, the board issued notes of 5, 10, and 20 cents (BCCM annual report 1948: 2). There were even 1-cent notes (p. 7). Silver coins began to be demonetized in 1949 and ceased to be legal tender starting 31 December 1952 (BCCMBB annual report 1949: 3; 1952: 4).

The first mention we saw of forgeries for this currency board: forgeries of 10 cent notes circulated and forgeries of 50 cent notes were seized before they could be circulated (BCCM annual report 1948: 3). After that, mention of forgeries seems to have occurred annually. The only mention of

large-scale forgery occurs in the 1960 annual report (BCCMBB annual report 1960: 6), with a note that the forgers were apprehended.

As of 1949 the BCCM consisted of the Financial Secretaries (equivalent to ministers of finance) of the Federation of Malaya and Singapore. Before World War II it was customary for one of the members to act as the chairman. Since 1946 the Malayan Financial Secretary did so. In 1949 it was agreed that the Singapore Financial Secretary should do so from 1 January 1950 (BCCM annual report 1949: 1).

BCCM headquarters was in Singapore, with offices in Kuala Lumpur and Penang (BCCM annual report 1949: 1). Since liberation, by agreement with the governments of North Borneo and Sarawak, stocks of Malayan currency had been maintained at Jesselton and Kuching. These were agencies, not full-fledged offices like those in Singapore, Kuala Lumpur, and Penang (BCCM annual report 1949: 2).

As of 1 January 1952, Sarawak, North Borneo, and Brunei joined the board, which revised its name. The Board now consisted of five members: the Financial Secretaries of the Federation of Malaya and Singapore; a person representing Sarawak, North Borneo, and Brunei, appointed by the governors of Sarawak and North Borneo and the British Resident of Brunei; and two more persons jointly appointed by all the participating governments. The Financial Secretary of Singapore was the chairman (BCCMBB annual report 1952: 3).

The Malaya British Borneo Currency Agreement is printed in the 1957 annual report (BCCMBB annual report 1957: 25-30). The agreement set a reserve ratio of 110% (p. 2, section 7(b)). The agreement did not establish an exchange rate or require the Board to exchange Malayan currency for sterling, although section 12 (1) does specify that for accounting purposes the value of the Malayan dollar is 2 shillings 4 pence (p. 29).

Reflecting Malaya's independence, a revised agreement, the Malaya British Borneo Currency Agreement 1960, came into force on 1 January 1961. The new agreement gave Malaya increased representation on the Board. The Board now had two members from Malaya, one of whom had to be the Chairman; the other four governments appointed one member each; and the independent seventh member was appointed jointly by the participating governments and had to be a person of recognized banking experience. The maximum commission was 3/16 British pence per Malayan dollar. The board was allowed to hold assets of participating governments up to Malayan \$100 million the first year, \$200 million the second year, and \$200 million in the third and later years (BCCMBB annual report 1960: 3). The board was also allowed to invest in nonsterling securities. Member governments could withdraw from the Board with 18 months' notice (BCCMBB annual report 1960: 4).

[1963 report: We are missing page 3, the first full page of narrative text]

On 12 December 1964 the government of Malaysia informed the Board that it intended to replace the Board with the Central Bank of Malaysia as the sole currency issuing authority (BCCMBB annual report 1964: 3). The notification would have meant that the Board would have ceased issuing currency in Malaysia not later than 11 December 1966, and coins a year later. On 5 August 1966, however, Malaysia, Singapore, and Brunei signed an agreement permitting the Board to continue issuing currency until 11 June 1967 (BCCMBB annual report 1966: 3).

Bank Negara Malaysia (Central Bank of Malaysia), as agent for the Board, took over the Jesselton (now Kota Kinabalu) office from the Government of Sabah on 3 August 1966 and the Kuching office from the Government of Sarawak on 1 May 1967 (BCCMBB annual report 1966: 3; 1967: 3).

The Board ceased to be the issuing authority in its member states on 12 June 1967, but its notes and coins remained legal tender (BCCMBB annual report 1967: 3).

The Board completed dismissing all of its staff in May 1969. The Board agreed in December 1968 that at the appropriate time, the currency offices should be closed and the monetary authorities of the member government should be appointed as agents to facilitate redemption of the relatively small amounts of Board currency outstanding (BCCMBB annual report 1968: 3).

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[We may incorporate these later:]

Straits Settlements. Currency Department. Annual Report of the Working of the Currency Department for the Year ... (we have 1921-1923). Singapore: Government Printing Office.

Straits Settlements. Currency Department. Report on the Working of the Currency Department(,) for the Period 1st October, ... to 30th September, ... (1923/1924-1936/1937). Singapore Government Printing Office.

Annual Report on the Working of the Malayan Currency Commission. [COPAC says there is one issue for the period 1941-1946. British Library has it].

Board of Commissioners of Currency, Malaya. Report of the Commissioners of Currency, Malaya for the Period 1st January, 1948 to 31st December, 1948 (1948). Singapore: Government Printing Office.

Report of the Commissioners of Currency, Malaya, ... (1949-1951). Singapore: Government Printing Office. [we are missing 1950]

Report of the Commissioners of Currency, Malaya and British Borneo ... (1952-1960). Singapore: Government Printing Office.

Report of the Board of Commissioners of Currency, Malaya and British Borneo ... (1961-). [Singapore: Government Printing Office] (1961); [Kuala Lumpur: Board of Commissioners of Currency, Malaya and British Borneo] (1962-1968). [check my Asia tables to see what they say about publication data]

Straits Settlements annual report or annual colonial report

Straits Settlements: Report for ... (1926-1930); the title Annual Report on the Social and Economic Progress of the People of the Straits Settlements starts with 1931, not 1930 as in many other colonies.

[Notes below may later be incorporated into the main text]

Here is the summary from the colonial annual report for 1928, pp. 7-8: The Straits Settlements silver dollar and silver half-dollar are unlimited legal tender. There are local coins of ¼ cent to Straits \$1. There are notes of 10 cents to Straits \$10,000. During and after World War I the government issued notes of 10 and 25 cents, but it then ceased printing them, and notes of \$1 were the lowest denomination still being printed in 1928. The \$1,000 and \$10,000 notes are mainly used by banks for clearing. Gold sovereigns are legal tender at Straits \$60 = 1 pound sterling, or Straits \$1 = 2 shillings 4 pence sterling. The Currency Commissioners accept sterling at 2 shillings 4-3/16 pence per dollar and receive dollars for sterling at 2 shillings 3-3/4 pence per Straits dollar. Page 17 of the annual report remarks that there were

still Straits \$138,999 of bank notes in circulation at the end of 1928. P. 18 remarks that there were Straits \$115,636,274.20 in government currency notes and \$5,958,262 in silver dollars and half dollars.

[start with 1929 colonial report]

The 1931 colonial annual report [Annual Report on the Social and Economic Progress of the People of the Federated Malay States] for the Federated Malay States says, “The standard coin is the Straits Settlements dollar with a par value of two shillings and four pence. [new paragraph] Currency notes issued by the Straits Settlements Currency Commissioners together with the Straits Settlements silver dollar and fifty-cent piece are legal tender to any amount throughout the Federation.” (p. 58)

The report of 30 September 1924 summarizes the previous 25 years of the system. The whole thing is worth reading and incorporating pieces of.

The 30 September 1928 annual report, p. 1, says “NOTE:—The currency of the Straits Settlements is the currency for the whole of Malaya, i.e., the Colony of the Straits Settlements, the Federated Malay States and the Unfederated Malay States. It also circulates freely in certain parts of Borneo.”

From Wikipedia: A 3 page special issue of the Straits Settlements Government Gazette published in Singapore on 24 Aug. 1904, contained the following proclamation by then Governor, Sir John Anderson. From 31 Aug. 1904, British, Mexican and Hong Kong Dollars would cease to be legal tender and would be replaced by the newly introduced Straits Settlements Dollar.

Spreadsheets

Under construction.

Sudan

Name, headquarters, dates, membership

Sudan Currency Board, headquarters Khartoum, Sudan. Established 5 March 1957 (first meeting of the Board); issued first notes and coins 8 April 1957, as well as assuming liability for coins already issued by the Sudanese government from 19 January 1957; ceased business 21 February 1960, succeeded the following day by the Bank of Sudan, a central bank; liquidated 14 June 1960 (Notice No. 145, *Republic of the Sudan Gazette*, 15 July 1960: 508). The chairman of the Sudan Currency Board became the first president of the Bank of Sudan. The currency board was established as one of the institutions connected with Sudan's independence from Anglo-British rule. Previously Sudan had used Egyptian currency. The board was replaced by a central bank in accord with the prevailing economic views of the time on the desirability of such an institution. The new central bank took over the operations of the Sudan Currency Board and the local operations of the National Bank of Egypt, Egypt's quasi-central bank.

Legislation

- Sudan, Currency Act, 17 June 1956: Established the Sudan Currency Board.
- Sudan, Currency Act, 1956 (Amendment) Act, published 15 October 1959: Allowed the chairman of the board to continue in office after his appointment as governor of the Bank of Sudan, and allowed the Sudan Currency Board to accept deposits from banks operating in the Sudan, so as to permit the board to absorb foreign exchange without having to issue notes in excess of the requirements of circulation.
- Bank of Sudan Act, No. 60, 1 December 1959: Established the Bank of Sudan, a central bank, to replace the Sudan Currency Board.

Exchange rate and currency system

The official exchange rate was Sudanese £1 = 2.55187 grams gold. The pound sterling was the intervention currency and the currency in which the Sudan Currency Board held most of its assets. The exchange rate with sterling was Sudanese £0.975 = £1 sterling. Sudan chose this exchange rate to make the Sudanese pound equal to the Egyptian pound. Before Sudan achieved independence on 1 January 1956, it had been under joint British and Egyptian rule. A consequence was that, having no locally issued currency at the time, Sudan had used Egyptian notes and Egyptian and British coins as currency.

The Sudan Currency Board charged a commission fee for exchanges into or out of pounds sterling, with a minimum amount of £10,000 sterling (SCB annual report 1957: 6). The commission fee was Sudanese £2.500 per £1,000 sterling for the public and Sudanese £1 per £1,000 sterling for banks and the government (SCB annual report 1957: 6).

The Sudanese pound was a decimal currency, divided into 100 piastres or 1,000 millièmes. The Sudan Currency Board issued coins of 1 millième to 10 piastres (100 millièmes), and notes of 25 piastres (250 millièmes or £0.250) to £10.

Financial year; sources of data

The Sudan Currency Board's financial year ran from July 1 to June 30. We assume that the Board chose the end of the financial year to coincide with a time of low activity in local agriculture. The first annual report covers the period ending 31 December 1957. The second report covers a period of only six months, from 1 January to 30 June 1958, while subsequent reports begin the reporting period on July 1.

We have copies of all the annual reports of the Sudan Currency Board.

Annual reports contain monthly statistics on currency in circulation and held by banks from some other statistics from October 1957 onward. Only one semiannual statement seems to have been published in the *Republic of the Sudan Gazette* (*Ghāzītat Jumhūrīyat al-Sūdān* (statement for December 1959, in *Gazette* of 15 May 1960: 366). We have not included it in the spreadsheet workbook.

The International Monetary Fund's *International Financial Statistics* database in effect has no statistics for the Sudan Currency Board during the period it existed: annual entries exist in the database, but the numbers are all zeros.

Remarks on the balance sheet

The big increase in foreign liabilities in the last balance sheet arose from the power the Sudan Currency Board had gained under the , Currency Act, 1956 (Amendment) Act, published 15 October 1959, to accept deposits from banks in Sudan.

Remarks on the income and expenditure statement

During the board's first year, its expenses exceeded its income, so it borrowed from the government (SCB annual report 1957: 6). It repaid the loan by August 1958 (SCB annual report 1958: 6). Thereafter, profits were paid to the government, amounting to Sudanese £8,162,383 in 1958, £8,829,010 in 1959, and £1,191,069 in 1960 (SCB annual report 1958: 6; 1959: 6; 1960: 6).

Remarks on other accounts and data

The annual reports show monthly data of currency in circulation starting from October 1957, the month when Sudanese coins began to replace British and Egyptian coins as legal tender. Sudanese notes had already replaced Egyptian notes as legal tender.

Deviations from orthodoxy

The Sudan Currency Board accepted that half of its initial reserves be in the form of Sudanese Treasury bills (SCB annual report 1957: 5). Sudan, formerly under the joint rule of Egypt and the United Kingdom, had become independent at the start of 1956. Sudan used Egyptian notes and Egyptian and British coins before the Sudan Currency Board began issuing currency. Egyptian currency had limited international acceptance and Egypt had imposed exchange controls even with Sudan since 1953. As part of the financial settlement with Egypt, the Sudanese government agreed to accept Egyptian rather than sterling assets. The Sudan Currency Board's holdings of Sudanese Treasury bills were the counterpart to the Sudanese government's Egyptian assets.

Other remarks

1957: The Sudan Currency Board exchanged its currency for Egyptian notes from 8 April to 7 July 1957. After that, Egyptian notes ceased being legal tender, but banks and the Board continued to accept them from "bona fide" holders without charge for a further three months. Before the Board began operations, the government had started issuing coins on 19 January 1957. The Board assumed liability for the coins. From 1 October to 31 December 1957 the Sudan Currency Board exchanged its currency for Egyptian and British coins. After that, British and Egyptian coins ceased being legal tender, but banks and the Board continued to accept them without charge for a further four months (SCB annual report 1957: 4).

References

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Spreadsheets

Annual and high-frequency done.

Swaziland

Name, headquarters, dates, membership

Monetary Authority of Swaziland, headquarters Mbabane, Swaziland, 1 April 1974 to 19 July 1979.

The Monetary Authority of Swaziland was established on 1 April 1974 by the Monetary Authority of Swaziland Order, 1974. It actually issued its first currency on 6 September 1974, Swaziland's independence day (MAS annual report, 31 March 1975: 2). Previously Swaziland had no domestically issued currency and used the South African rand instead. One motive for establishing the Monetary Authority of Swaziland was to capture seigniorage that formerly accrued to South Africa. Swaziland continued to allow the rand to circulate because making the emalengeni the sole currency would have required exchange controls with South Africa, which would have been cumbersome in light of the close connections between the two economies (MAS annual report, 31 March 1975: 23-24). An Order-in-Council of 18 July 1979 converted the Monetary Authority of Swaziland into the Central Bank of Swaziland (Central Bank of Swaziland annual report 1979/1980: 12). [What was the rationale? See the first annual report of the central bank.]

Legislation

- Swaziland, royal Order in Council on the Monetary Authority of Swaziland, 22 March 1974: Established the Monetary Authority of Swaziland.
- Swaziland, amendment to royal Order in Council on the Monetary Authority of Swaziland, 18 July 1979: Converted the Monetary Authority of Swaziland into the Central Bank of Swaziland.

Exchange rate and currency system

Throughout the existence of the Monetary Authority of Swaziland, the exchange rate was 1 Swazi lilangeni (plural emalangeni) = 1 South African rand. The rand, previously used as sole legal tender, continued to be legal tender alongside the lilangeni (MAS annual report, 31 March 1975: 1). The importance of trade with South Africa, which accounted for more than 90% of Swaziland's imports and 20% of its exports, was the dominant factor in convincing the government to link the exchange rate to the South African rand (MAS annual report, 31 March 1975: 14).

The lilangeni is a decimal currency, divided into 100 cents. The Monetary Authority issued coins of 1 cent to 1 emalangeni and notes of 1 to 20 emalangeni (MAS annual report, 31 March 1979: 12th unnumbered page; page has section heading "Exchange Control Department").

Financial year; sources of data

The financial year of the Monetary Authority of Swaziland ran from 1 April to 31 March.

We have copies of all the annual reports of the Monetary Authority of Swaziland from 1974/1975 to 1978/1979.

There are some high-frequency data of balance sheet items for the first year only of the Monetary Authority of Swaziland's life, in its first annual report. Other high-frequency data may exist in the government gazette, which we did not search.

Starting with April 1974, the International Monetary Fund's *International Financial Statistics* database shows monthly balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

As backing for the currency, the Monetary Authority of Swaziland held a deposit in rand with the South African Reserve Bank (South Africa's central bank), plus relatively small amounts of rand notes and coins. The South African Reserve Bank paid interest on the rand deposit (MAS annual report, 31 March 1975: 4).

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

The first annual report of the Monetary Authority of Swaziland contains monthly data on the principal items in its balance sheet; foreign trade; commercial banking; interest rates; and government debt. Subsequent annual reports reduce the amount of data shown that is not directly connected with the Monetary Authority's operations.

Deviations from orthodoxy

The Monetary Authority of Swaziland had a number of unorthodox features. Domestic assets were 21.4% of total assets at the end of the 1974 financial year and 31.8% in 1975 before falling to around 5% for 1976-1978.

1974: In May 1974, a bank asked to borrow from the Monetary Authority of Swaziland to refinance exports contracts for cotton. The Monetary Authority granted two advances totaling 1 million emalengeni, financed by its borrowing from the South African Reserve Bank, in accord with an agreement of March 1974 between the South African and Swazi governments (MAS annual report, 31 March 1975: 6).

1975: The Monetary Authority of Swaziland introduced reserve requirements of 3.5% for commercial banks effective 1 January 1975. The Monetary Authority paid interest on deposits of banks with it in excess of reserve requirements (MAS annual report, 31 March 1975: 5). Subject to approval by the Minister of Finance and Economic Planning, the Monetary Authority of Swaziland had power to prescribe maximum interest rates banks could charge (MAS annual report 1975: 6).

1976: Effective 13 July 1976, the Monetary Authority of Swaziland introduced a discount rate (MAS annual report, 31 March 1977: 6).

1978: The Monetary Authority of Swaziland lent to banks in May-June 1978

Other remarks

1974: New exchange control regulations replaced former regulations dating from 1949 (MAS annual report, 31 March 1975: 8).

References

Central Bank of Swaziland. Annual report. 1979. *Annual Report*. Mbabane: Central Bank of Swaziland.
MAS. Monetary Authority of Swaziland. Annual report. 1974/1975-1978/1979. *Annual Report for the Financial Year ...* (1974/1975-1978/1979). Mbabane: Monetary Authority of Swaziland. Unless indicated otherwise, facts mentioned in the text will be found in the report covering the financial year for which they are mentioned. The text above lists financial years under the calendar years they end.

Spreadsheets

Annual and high-frequency done.

Thailand

Name, headquarters, dates, membership

Possible case, running from 1902-42. It is unclear if the 25% of reserves allowed to be invested in securities was in local or foreign securities. This page is a placeholder.

Legislation

- Not sure if this was a currency board.

Exchange rate and currency system

Financial year; sources of data

The International Monetary Fund's *International Financial Statistics* database does not cover Thailand during the period of the currency board.

Remarks on the balance sheet

Remarks on the income and expenditure statement

Remarks on other accounts and data

Deviations from orthodoxy

Other remarks

References

Spreadsheets

Under investigation.

Tonga

Name, headquarters, dates, membership

Board of Currency Commissioners, headquarters Nuku'alofa, Tongatapu, Tonga, 1919? to 30 June 1989.

The Tongan government first issued notes in 1919 (Tonga annual report 1931: 20). We suspect but are not certain that the system operated on currency board principles from the start. We have not found a statement of the rationale for establishing the system. Tonga replaced the currency board with a central bank, the National Reserve Bank of Tonga, on 1 July 1989, to have more room for discretionary monetary policy.

Legislation

- Tonga, legislation establishing note issue: [Description to come].
- Tonga, Treasury Notes Act, 1935: Established the Australian pound as the anchor currency. When the government note issue was established the Australian pound was equal to the pound sterling, both were legal tender in Tonga, and it had not been thought that their values would diverge, but they did, especially from 1931 onward.
- Tonga, Coinage Act, 1962: Established local coinage.
- Tonga, Decimal Currency Act. [1965 or so]: Established a decimal currency.
- Tonga, National Reserve Bank of Tonga Act, cap. 102, 29 December 1988: Established the National Reserve Bank of Tonga, a central bank, to replace the Board of Commissioners of Currency.

Exchange rate and currency system

The exchange rate changed as follows:

- 1919 to 1936: Tongan £1 = £1 sterling/£1 Australian.
- 1936 to 13 February 1966: Tongan £1 = Australian £1. We do not have the details on this episode but we suspect that it was not a devaluation and that the government had in practice been using the Australian pound rather than the pound sterling for the anchor currency of the note issue.
- 14 February 1966 [Wikipedia says 4 April 1967] to 30 June 1989: 1 Tongan pa'anga = Australian \$1. Tonga introduced a decimal currency on the same day Australia did, and made its new currency equal to the new Australian currency. The exchange rate with old currency was 2 Tongan pa'anga = Tongan £1.

Currently we have no information about commission fees or the minimum exchange size.

Like the United Kingdom and Australia at the time, Tonga at first used the pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated "s.") = 240 pence (or pennies, abbreviated "d." from the Latin *denarius*, an ancestor of the penny). When Tonga decimalized on 14 February 1966, the new currency, the pa'anga, was divided into 100 seniti. *Pa'anga* is the Tongan name of a beanlike vine.

Tonga issued its first coins in 1962; they were collector's issues. Before then it officially used British and Australian coins, made legal tender by a Tongan law of 1906, and later Australian coins only. Unofficially, New Zealand and Fiji coins also gained acceptance during World War II and remained used after the war (Tonga annual report 1931: 20; 1956 & 1957: 15).

Financial year; sources of data

The financial year ran from 1 July to 30 June (Tonga annual report 1930: 5; *Tonga Gazette*, 19 February 1934: 17).

We have copies of the relevant sections of all Tonga colonial annual reports published from 1926 to 1938, plus the 1956 & 1957 and 1958 & 1959 reports; we will try to get 1918-1925, 1946-1955, and 1960-end from the Library of Congress for a future version of the paper. We also have many issues of the

Tonga Gazette from 1934 to 1990 with higher-frequency data on the currency board, though not a complete series. Data were quarterly through 1934, semiannual from 1935 to 1953, and annual from 1954 to 1989. We are missing issues of the gazette for these dates: 1919-March 1933 (quarterly), December 1941-June 1948 (semiannual), June 1951, 1954 (annual henceforth), 1967, 1974-1989.

The International Monetary Fund's *International Financial Statistics* database does not cover the balance sheet of the monetary authority during the period of the currency board: 1919-March 1933,

Remarks on the balance sheet

After the currency board began issuing coins in 1963 there was a separate balance sheet for coins.

Remarks on the income and expenditure statement

After the currency board began issuing coins in 1963 there was a separate income and expenditure statement for coins.

Remarks on other accounts and data

After the currency board began issuing coins in 1963 there were a separate balance sheet and income and expenditure statement for coins.

Deviations from orthodoxy

Financial statements in the *Tonga Gazette* indicate some holding of local assets at times [after 1974?; get citations]. Skully (1987: 163) says the minimum requirement for foreign reserves was 75%, not 100% as in an orthodox currency board. Baker (1977: 241) says foreign reserves were 100%, but does not discuss whether the legal requirement was in fact less.

Other remarks

Background information is somewhat scarce.

1926: The government opened a Government Savings Bank in January 1926 (Tonga annual report 1926: 4). As of 1957 we infer that it was still the only financial institution in Tonga, because no other institution is mentioned (Tonga annual report 1958 & 1959: 16).

1931: The colonial annual report mentions seemingly for the first time that Tonga's parliament had passed a law in 1906 making British and Australian coin the currency of Tonga, and that the government had issued notes in 1919; in 1931 there were £21,268 in circulation, secured by a coin and investment reserve (Tonga annual report 1931: 20). So, the system sounds as though it had been a currency board from the start. The amount of outstanding sounds as if it had been invariant since 1919.

1935: "The issue [of Tongan notes] is secured by an investment reserve. The Treasury Notes Act, 1935, adopts the exchange standard system based on Australian Currency" (Tonga annual report 1935: 21). This issue of the colonial annual report ceases to mention a coin reserve, implying that henceforth almost all reserves were held as securities or bank deposits.

1937: The colonial annual report of this year is the first to mention an increase of currency notes beyond the £21,268 that had long been in circulation (Tonga annual report 1937: 28).

1974: The first bank was apparently the Bank of Tonga (headquarters Nuku'alofa, Tongatapu, Tonga), in Nuku'alofa, Tongatapu, on 1 July 1974. (At least, it was the only bank still in existence when Tonga later established a central bank.)

1985: As of 1985, when the International Monetary Fund began coverage of Tonga, its *Annual Report on Exchange Arrangements and Exchange Restrictions* (p. 500) noted that the Bank of Tonga, the only commercial bank, maintained a spread of approximately 2% between its buying and selling rates. For export receipts, the bank bought foreign exchange at the midpoint rate upon submission of evidence that the foreign exchange was derived from export sales.

References

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Skully, Michael T. 1987. *Financial Institutions and Markets in the South Pacific: A Study of New Caledonia, Solomon Islands, Tonga, Vanuatu, and Western Samoa*. New York: St. Martin's Press.

Tonga. Annual report. 1923/1924-1938. Great Britain (United Kingdom). Colonial Office, *Tongan Islands Protectorate: Report for ...* (1923/1924-1930); Colonial Office, *Annual Report on the Social and Economic Progress of the People of the Tongan Islands Protectorate, ...* (1931-1938); not published 1939-1945 because of World War II; Colonial Office, *Annual Report on Tonga for the Year(s) ...* (1946-[date; the latest we have is 1958 & 1959]). London: His / Her Majesty's Stationery Office. [We need to get earlier and later reports from the Library of Congress to fill out the series.] (This series was called Colonial Reports until World War II and Colonial Annual Reports afterwards; it was suspended during the war for most colonies.)

Spreadsheets

Under construction.

Trinidad and Tobago

Name, headquarters, dates, membership

Commissioners of Currency, headquarters Port-of-Spain, Trinidad, 1 February 1906 to 31 July 1951. There is no mention in the colonial annual reports of the name of the currency-issuing body, which may have been called the Commissioners of Currency.

The government began issuing notes on 1 February 1906 (*Trinidad Royal Gazette*, 4 January 1906: 1), pursuant to the Government Currency Note Regulations, promulgated by the British Secretary of State for the Colonies on 5 January 1906 (*Trinidad Royal Gazette*, 22 February 1906: 320). We conjecture that the reason for establishing the note issue was to gain seigniorage that was accruing to the British government from the use of British coins, since the notes were limited to denominations of \$1 and \$2. A multicolonial currency board, the Board of Commissioners of Currency, British Caribbean Territories (Eastern Group), also known as the British Caribbean Currency Board (headquarters Port of Spain, Trinidad) began issuing notes on 1 August 1951, succeeding local note issues in Barbados, British Guiana (today Guyana), and Trinidad and Tobago. Those colonies joined the board as part of a movement toward possible political federation. Barclays Bank (Dominion, Colonial and Overseas), successor to the Colonial Bank, voluntarily surrendered the right to issue notes granted in its British charter as of 15 August 1951, and became the agent for the currency board. The other note-issuing banks in the region (Bank of Nova Scotia, Canadian Bank of Commerce, and Royal Bank of Canada) had been prohibited from issuing notes in 1950 by legislation in the colonies that later established the currency board (BCCB annual report 1951: 1-2).

Legislation

- Trinidad and Tobago, Government Currency Notes Ordinance, No. 16 of 1903: Established the legal framework for a government note issue by a currency board.
- Trinidad and Tobago, Government Currency Notes Ordinance, No. 244, 1904: Apparently a revision of the 1903 ordinance, which had not yet become effective because no notes had been issued.
- Trinidad and Tobago, Government Currency Notes Ordinance, No. 4 of 1905: Repealed the requirement in the 1903 ordinance of for publication in the government gazette of any alteration in regulations by the British Secretary of State for the Colonies.
- Trinidad and Tobago, Government Currency Note Regulations [for Ordinance No. 244], promulgated by the British Secretary of State for the Colonies on 5 January 1906: Established Commissioners of Currency. Apparently a supplement to the 1904 ordinance.
- Trinidad and Tobago, Government Currency Notes Ordinance, No. 244, 19 November 1934, published 20 December 1934: Repealed provisions regarding issue and redemption of notes for coin and provided that in future notes would be issued or redeemed for pounds sterling.
- British Caribbean Currency Agreement 1950: Ended local government issue of notes in favor of participation in the multicolonial British Caribbean Currency Board.
- Trinidad and Tobago, Government Currency Notes (Repeal) Ordinance, No. 34 of 1955: Repealed legislation regarding the Trinidad and Tobago government note issue and provided for the winding up of the Note Security Fund.
- Trinidad and Tobago, Central Bank Act, No. 23 of 1964: Established the Central Bank of Trinidad and Tobago to replace the British Caribbean Currency Board.

Exchange rate and currency system

The exchange rate was West Indian (Trinidad) \$4.80 = £1 sterling throughout the existence of the currency board. By that rate, 2 West Indies cents = 1 penny (pence) sterling.

We found no information about commission fees the currency board charged, but we suspect that they existed because they were common at the time. Nor did we find information on minimum exchange amounts.

The West Indian dollar was a decimal currency, divided into 100 cents. The 1918 colonial annual report says, “British currency and United States gold are legal tender. Accounts are kept in sterling by the Government and in dollars by the public, and the coin in circulation is almost exclusively British silver and bronze, there being no limit to silver as legal tender” (Trinidad and Tobago annual report 1918: 12). Three banks issued notes: the Colonial Bank (later part of Barclays Bank, Dominion, Colonial and Overseas), the Royal Bank of Canada, and from the 1920s also the Canadian Bank of Commerce (Trinidad and Tobago annual report 1925: 9). A longstanding British colonial policy prohibited banks from issuing notes for less than £1, so the bank notes were for West Indian \$5 or more. The government issued notes of West Indian \$1, \$2, and \$1,000 (Trinidad and Tobago annual report 1918: 12). The \$1,000 notes were evidently for use among banks and between banks and the government treasury

The government switched its unit of account sterling to West Indian dollars from 1 January 1935, the start of the financial year (Trinidad and Tobago, Currency Interpretation Ordinance, No. 23 of 1934, cited in Trinidad and Tobago annual report 1934: 46; Trinidad and Tobago annual report 1935: 48). Trinidad and Tobago continued to use British coins until British Caribbean Currency Board coins began to be issued on 15 November 1955 to replace them (BCCB annual report 1955: 6)

Financial year; sources of data

The fiscal year ran from 1 April to 31 March until March 1915. Then the fiscal year changed to the calendar year, with a short first year in 1915 running from 1 April to 31 December (Trinidad and Tobago annual report 1915: 3).

We have copies of the relevant sections of all Trinidad colonial annual reports published from 1904/1905 to 1957. Colonial annual reports contained some annual data. The first annual report to give statistics of note issue is that for 1918 (Trinidad and Tobago annual report 1918: 12).

The Commissioners of Currency apparently published annual reports, which we have not seen.

The *Trinidad Royal Gazette* contains high-frequency data. Data were originally monthly, then apparently switched to seminannual (June and December) starting in 1935. We are missing data for the following months: April 1918, January and March 1920, February and April 1923, all months of 1924, August 1925, April 1926, March 1928-January 1929, March 1933, October 1934, December 1936?, December 1937, June 1938, December 1941, June 1942, December 1944, June and December 1946, December 1947, December 1948.

The International Monetary Fund’s *International Financial Statistics* database does not cover Trinidad during the period of its local currency board.

Remarks on the balance sheet

The format of the balance sheet changed several times over the life of the currency board. For instance, from 1916 to 1933 interest-earning investments were divided into a Guarantee Fund and a Depreciation Fund, the purpose of the latter being to provide a buffer preventing the total assets of the currency board from falling below 100% of currency in circulation.

Remarks on the income and expenditure statement

None. The *Trinidad Royal Gazette* and the colonial annual reports apparently provide no? information on income and expenditures. Information may exist in detailed annual reports of overall government income and expenditure, which we did not search.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Trinidad and Tobago's currency board was apparently itself orthodox, but Trinidad and Tobago's overall monetary system was not a pure currency board system. Rather, the system was a combination of a currency board and free banking, because banks issued notes alongside the currency board.

Other remarks

We thank Andrew Rosenberg for digitizing data from the colonial annual report and Brandon Dixon for digitizing high-frequency data from the *Trinidad Royal Gazette*.

1903: Trinidad and Tobago, Bank Notes Ordinance, No. 14 of 1903, made it illegal for banks to issue notes other than on terms prescribed by the ordinance.

1925: By 1925 the Canadian Bank of Commerce was issuing notes (Trinidad and Tobago annual report 1925: 9). Note issue by banks is first mentioned in the colonial annual report for 1921 (Trinidad annual report 1921: 9), although it dated back to the 1800s.

1929: There was some kind of requirement that banks deposit securities with the government against their note issue, as seen by entries in the assets of the colony (Trinidad and Tobago annual report 1927: 9). [When did this start? Was it only for the Canadian banks, to imitate provisions in Canadian law?]

1930: After 1930 the colonial annual reports cease to list the note issue of the banks. Perhaps they are in the government gazette.

1932: Bank-issued notes in circulation were subject to a 1% license tax by Trinidad, Bankers Licenses and Bank Notes (Duties) Ordinance, No. 40 of 1932 (Trinidad and Tobago annual report 1932: 48).

1934: The \$1,000 notes went out of circulation some time by 1934 because they are not mentioned in that year's colonial annual report. The banks issued notes of \$5, \$10, and \$100. Government accounts began to be kept in dollars, rather than sterling (Trinidad and Tobago annual report 1934: 36).

1946: The 1946 colonial annual report mentions for the first time that government notes of \$5, \$10, and \$2 are also in circulation, in addition to \$1 and \$2 notes, and that British Guiana and Barbados notes are also legal tender (Trinidad and Tobago annual report 1946: 86). We are uncertain what were the underlying ordinances regarding legal tender for British Guiana and Barbados notes.

1951: On 1 August 1951 the British Caribbean Currency Board took over the Trinidad and Tobago government note issue. On 15 August the British Caribbean Currency Board began withdrawing Trinidad notes. Also on 15 August, Barclays Bank voluntarily ceased issuing notes. It seems the two Canadian banks had ceased some time before — perhaps in 1945, when they ceased issuing notes in Canada (Trinidad and Tobago annual report 1951: 46).

1952: The 1952 report shows a consolidated balance sheet of the commercial banks for the first time, rather than just selected items (Trinidad annual report 1952: 43).

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Spreadsheets

Under construction.

United Arab Emirates Currency Board

The United Arab Emirates Currency Board, despite its name, was a central bank, with most of the powers such an institution usually has nowadays. We list it here as an example of why one must examine the workings of the institution rather than simply relying on its name to determine whether it was a currency board. It was perhaps called a currency board because calling it a central bank would have evoked association with the payment of interest, which many Moslems consider to be prohibited by the Koran as a form of usury. That association explains why Saudi Arabia's central bank is called the Saudi Arabian Monetary Agency. In Islamic banking, other payments substitute for interest.

Name, headquarters, dates, membership

United Arab Emirates Currency Board, headquarters Abu Dhabi.

Established 19 May 1973; began issuing currency 20 May 1973 (according to UAECB annual report 1974: "Currency," unnumbered page; 1975: 1 in contrast says currency issue began 19 May); succeeded 10 December 1980 by the United Arab Emirates Central Bank. The Board served all the member emirates of the United Arab Emirates.

Legislation

- United Arab Emirates, Union Law No. 2 of 1973 (cited in UAECB annual report 1975: vii): Established the United Arab Emirates Currency Board, which, to repeat, was a monetary institute and not a currency board.
- United Arab Emirates, Union Law No. 10, 2 August 1980 (cited in slip inserted into UAECB annual report 1980: title page and Central Bank of the United Arab Emirates Web site, "About Us > History of the UAE Central Bank"): Converted the United Arab Emirates Currency Board into the Central Bank of the United Arab Emirates.

Exchange rate and currency system

The exchange rate was as follows:

- 20 May 1973-22 February 1974: 1 United Arab Emirates dirham = 0.186621 grams gold, or 3.94737 dirhams = US\$1 (UAECB annual report 1974: "Currency," unnumbered page; 1975: 6). Like many monetary authorities at the time, the United Arab Emirates Currency Board had an official exchange rate in terms of gold but did not freely redeem its currency in gold. The U.S. dollar was the true anchor currency.
- 23 February 1974-March 1975: 3.94737 United Arab Emirates dirhams = US\$1, or 1 dirham = 0.21 SDR = 0.186621g gold (nominally): Established an official exchange rate with the U.S. dollar and registered a gold parity (in practice inoperative) with the International Monetary Fund (UAECB annual report 1975: 6; IMF ARER 1975: 487).
- March 1975-February 1977: Same as above, but increased exchange rate margins to +/- 2.25% from previous band of unspecified width, but we assume not exceeding +/-1%, in accord with the rules of the International Monetary Fund. The U.S. dollar remained the intervention currency and the de facto anchor, and in practice, the exchange rate against the dollar varied little (UAECB annual report 1975: 6; 1976: 8; 1978: 16).
- February 1977-27 January 1978: Officially, same as above, but in practice, 3.898 United Arab Emirates dirhams = US\$1 (UAECB annual report 1977: 22).
- 28 January 1978-14 August 1978: Officially, 4.7619 United Arab Emirates dirhams = 1 Special Drawing Right, +/-2.25%; in practice 3.88 United Arab Emirates dirhams = US\$1 (UAECB annual report 1977: 22).
- 15 August 1978-22 November 1980: Same as above but widened margins to +/-7.5%. The U.S. dollar remained the intervention currency and the Bahrain dinar was revalued slightly against it

three times in 1978 and multiple times in 1979 and 1980 (UAECB annual report 1978: 16; 1979: 27; 1980: 32; IMF ARER 1981: 474).

There was an unspecified, apparently variable spread between the board's buying and selling rates (UAECB annual report 1974: "The Foreign Exchange Market," unnumbered page).

The dirham was a decimal currency, divided into 100 fils. The Board issued coins of 1 fil to 1 dirham and notes of 1 dirham to 1,000 dirhams. It also issued high-value gold commemorative coins, but although legal tender they were not expected to circulate (see UAECB annual report 1976: 5). Before the creation of the Board, the seven member emirates used either the Qatar and Dubai riyal or the Bahrain dinar. The Bahrain dinar remained legal tender through 18 November 1973 and the Qatar and Dubai riyal until 18 August 1973 for notes and 18 September 1973 for coins, and banks continued to exchange them at par with the United Arab Emirates dirham until 30 November 1973 (UAECB annual report 1973: "Currency," unnumbered page).

Financial year; sources of data

The financial year of the United Arab Emirates Currency Board was the calendar year, January 1 to December 31.

We have copies of all the annual reports of the United Arab Emirates Currency Board.

Higher-frequency data than the annual data we collected may exist in the government gazette, because we do not read Arabic and because the board was not a true currency board.

Starting with April 1974, the International Monetary Fund's *International Financial Statistics* database shows the balance sheet data of the monetary authority. Its standardization of balance sheet data of the monetary authority differs from ours, and it does not show income and expenditures of the monetary authority.

Remarks on the balance sheet

General: "Foreign exchange holdings" was the amount of foreign exchange kept in reserve that comprised of mostly U.S. dollars but also included the Canadian dollar, the mark, and the yen.

1978-1980: We are uncertain what the asset and liability contra accounts represent. They balance each other.

Remarks on the income and expenditure statement

The United Arab Emirates Currency Board stood ready to exchange with banks a variety of currencies determined at rates that were set daily. Banks were permitted to deal with foreign exchange between themselves at any rate between the Board's daily published rates. The Board stood as a sort of dealer of last resort. (UAECB annual report 1974: 12). The board also did not publish any sort of income and expenditure statement with their annual reports until 1980, which also included the previous year's statement.

Remarks on other accounts and data

1974: The annual report shows monthly data on the notes and coins issued by month starting July 1973 (UAECB annual report 1974: "Notes Issued: Value and Percentage by Denomination," unnumbered page). Later reports continued the data series.

1975: The annual report starts to show monthly statistics on the total money supply and domestic currency, a monetary survey of the currency, a set of exchange rates with other currencies and a list of banks of their respective locations (UAE annual report 1975: 14-23).

Deviations from orthodoxy

The first annual report of the United Arab Emirates Currency Board acknowledged that "The statutes of the Board are those usually associated with a Monetary Agency rather than a Currency Board[,] providing fairly wide central banking powers over the commercial banking sector but lacking

full Central Bank authority over other financial institutions and intermediaries” (UAECB annual report 1974: first page of narrative text, unnumbered). “The Board have intervened regularly in what has become an increasingly active interbank market” (UAECB annual report 1974: “The Local Money Market,” unnumbered page). The board was not required to maintain a fixed exchange rate. Its minimum ratio of external assets to demand liabilities was only 70% (UAECB annual report 1978: 10).

1973-1974: The board regulated the banking sector by issuing permits for banks to be established and had maximum rates of interest payable on deposits of less than 5 million dirhams. The board also established maximum charges for many of the routine commercial banking services and the best rates of exchange allowed to customers. The board was also active in the interbank money market. Early in 1974 there was a liquidity crisis and the board “made available sizable amounts of mainly short-term deposits at market rates.” The board also provided direct assistance to the Emirate Governments at extremely concessionary rates for specific development projects. The board also refinanced through the commercial banks a large amount of construction work at rates of interest below market rates (UAECB annual report 1974: “The Local Money Market,” unnumbered pages).

1975: The board set maximum rates for single and separate fixed deposits and notice accounts. The Board also held deposits with 16 different banks totaling 527 million dirhams (UAECB annual report 1975: 2).

1976: The board provided liquidity lending to banks. Its rate was 12% from 27 September 1976 to 20 March 1976, when it was raised to 20%, then further raised 30% on 3 July 1976. Also, on 1 May 1976 reserve requirements were implemented and banks were required to maintain current account balance with the Board at no less than 5% of their deposit liabilities in dirhams plus 1% of deposit liabilities in foreign currencies (UAECB annual report 1976: 6-7).

1977: The Janata Bank, which closed along with the Ajmen Arab bank in May 1977, reopened in July after obtaining a loan from the Currency Board. The Board also provided substantial long-term loans to member governments and placed funds with some local banks, also for long terms in some cases (UAECB annual report 1977: 12-13, 15). We infer that the purpose was to improve banks’ finances.

1978: On 8 February 1978 the board declared it would act as a lender of last resort in accord with the 1973 law establishing it (UAECB annual report 1977: 21). The board established a Banking Supervision Department in April 1978 (UAECB annual report 1978: 12).

Other remarks

Effective 1 January 1976, the United Arab Emirates Currency Board and the Bahrain Monetary Agency agreed to enable travelers to exchange currency at a fixed rate of 1 Bahrain dinar = 10 United Arab Emirates dirhams, up to 500 dinars or 5,000 dirhams (UAECB annual report 1975: 5). On 1 September 1976 the Qatar Monetary Agency set a one-to-one fixed exchange rate (Qatar Monetary Agency annual report 1976: 11). These rates were established as a step towards a common currency for the area and also for the convenience of travelers. The exchange rate scheme with Qatar was cancelled in May 1979 and with Bahrain in August 1979 because the market rates of the currencies were no longer close to the whole-number values established previously (UAECB annual report 1979: 28).

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Spreadsheets

Annual done; we will not do high-frequency.

West African Currency Board

Dates, name, headquarters

West African Currency Board, headquarters London.

Members appointed 21 November 1912; board established 6 December 1912; began issuing currency 26 June 1913 (WACB annual report 1914: 2, 4); ceased issuing currency 31 May 1968; final liquidation 31 October 1973.

The British government established the West African Currency Board to provide a local currency for its West African colonies. The British government was concerned that British silver coins, which were widely used in West Africa but whose legal tender was limited to £2 in the United Kingdom, could cause financial embarrassment for the British government if a large, sudden demand for their redemption arose in Africa. The Board initially served Gambia, the Gold Coast (now Ghana), Nigeria, and Sierra Leone. During World War I, British, French, and Belgian troops conquered German colonies in West Africa. Cameroons (now divided between Nigeria and Cameroon) and Togoland (now part of Ghana) became British mandates supervised by the League of Nations. Cameroons was administered as part of Nigeria, and Togoland as part of Ghana, so both used West African currency (see for instance WACB annual report 1919: 4, paragraph 18). Liberia also used West African currency through the end of 1943 although it was not a member of the Board and received no share of the Board's profits.

Ghana became the first member state to leave the West African Currency Board: its central bank began deposit operations on 1 August 1957, and began issuing notes and coins to replace those of the Board on 14 July 1958. Nigeria left on 1 July 1959 and Sierra Leone on 4 August 1964, both establishing central banks. Gambia established a quasi currency board on 1 October 1964. The West African Currency Board's notes ceased to be legal tender in Gambia on 1 September 1966, and its coins ceased to be legal tender there on 1 June 1968 (WACB annual report 1967: 5; 1968: 5). They had earlier ceased to be legal tender elsewhere. Therefore we mark 31 May 1968 as the Board's effective end as a currency issuer. The Board continued in existence until 31 October 1973, but only as an institution in liquidation (WACB annual report 1973: 3). The reason for establishing central banks in Ghana, Nigeria, and Sierra Leone was the belief that discretionary monetary policy was more conducive to economic growth and stability, and more consistent with political independence, than a currency board was.

Legislation

- United Kingdom, Secretary of State for the Colonies, Memorandum Defining the Constitution, Duties and Powers of the West African Currency Board, 6 December 1912: Established the West African Currency Board.
- Great Britain, Order in Council, 7 May 1913: Legalized new coins, issued by the West African Currency Board. Local proclamations in the West African colonies brought the Order in Council into effect on 26 June 1913.
- Nigeria, Ordinance No. 11, 3 May 1916: Allowed note issue (WACB annual report 1917: 3).
- The currency board can be said to have dissolved in stages, but Nigeria, Central Bank Act, 17 March 1958 (British royal assent granted 15 May 1958) was the most important piece of legislation because it established the Central Bank of Nigeria to replace the West African Currency Board in Nigeria, the most important West African territory.

Exchange rate and currency system

The exchange rate throughout the existence of the West African Currency Board was West African £1 = £1 sterling.

The West African Currency Board issued and redeemed notes and coins in West Africa in exchange for deposits of pound sterling in London. The Board charged the following fees (premiums), effective on the dates specified: 26 June 1913 (inception), 0.75% for payments in London or West Africa; 19 March 1915: 1.5% for drafts on London offered in West Africa (and still 0.75% for silver coin in West

Africa against prepayment in London); 1 January 1917, 1.25% for silver coins delivered in Africa against prepayment in London (and still 1.5% for drafts on London offered in West Africa); 1 January 1919, 0.75% for silver coins delivered in Africa against prepayment in London (and still 1.5% for drafts on London offered in West Africa); 28 March 1919, 0.75% for payments in London or West Africa; 23 March 1923 to the end of the Board's existence, 0.5% for payments in London or West Africa (WACB annual report 1914: 3; 1915: 2; 1917: 3; 1919: 3; 1923: 2). The increase in fees during World War I was less than the increase in the Board's actual costs, which arose from World War I shipping risk and were as high as 6.5% at one point. Apparently because the West African colonies were not contiguous, the Board initially also charged fees for transfers of funds within West Africa. Rates were the same as those for drafts on London offered in West Africa, except that from 19 March 1915-27 March 1919, when rates were not symmetrical between London and West Africa, intra-West African rates may have been lower; the annual reports seem silent on this point. On 1 October 1945 the Board ceased charging fees for transfers of funds within West Africa (WACB annual report 1946: 4). We do not have information on the minimum exchange amount, but suspect that it was £10,000.

Like the United Kingdom at the time, British West Africa used the nondecimal pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated "s.") = 240 pence (or pennies, abbreviated "d." from the Latin *denarius*, an ancestor of the penny).

At first the West African Currency Board issued only coins. On 11 July 1916 it began issuing notes of 10 shillings and £1 on a large scale under Nigeria, Ordinance No. 11, 3 May 1916, although the annual report for financial 1916 shows £9 in notes outstanding at the end of June 1916 (WACB annual report 1916: 4-5, 17; 1917: 3). The Board's coins were made of silver, alloy, nickel-bronze, and later cupro-nickel. The silver coins were for threepence, sixpence, one shilling, and one florin (two shillings). Like British coins of the same denominations, they were originally 222/240 (92.5%) silver and their silver content was such that 1 troy pound was coined into 66 shillings. Therefore the face value of a shilling exceeded the value of the silver it contained as long as the price of silver remained below 66 pence (£0.275) per troy ounce. (There are 12 troy ounces or 5,760 grains in a troy pound, and a troy pound is approximately 373.242 grams.) After World War I, the market price of silver briefly exceeded 66 pence, leading the Board to reduce the silver content in its silver coins to 50% starting in May 1920, and then to begin replacing silver coins with alloy coins in August 1920 (WACB annual report 1920: 3; 1921: 3). The alloy coins had the same denominations as the silver coins and looked similar, but had lower value as metal. The Board began withdrawing silver coins from circulation in March 1921 (WACB annual report 1925: 3). The Board issued nickel-bronze (later cupro-nickel) coins of one pence, a halfpence, and a tenth pence. Over its lifetime, the denominations of the coins it issued ranged from a tenth pence to two shillings and the denominations of the notes it issued ranged from 1 shilling (£0.05) to 100 shillings (£5). The 1- and 2-shilling notes were temporary, to alleviate shortages caused by interruptions of shipping during World War I and the high price of silver after the war. After that, the lowest denomination note the Board issued was 5 shillings.

Financial year; sources of data

The West African Currency Board's financial year ran from July 1 to June 30. The Board chose the end of the financial year to coincide with a time of low activity in local agriculture (WACB annual report 1914: 1).

We have copies of all the West African Currency Board's annual reports. In between its annual financial statements the Board also published abbreviated financial statements in the government gazettes of Nigeria and other colonies. The Board's first regulations, of 6 December 1912 (in WACB annual report 1914: 7), only required the board to submit an annual financial statement to the British Secretary of State for the Colonies. Revised regulations of 25 November 1915 (in WACB annual report 1916: 6-7) required a quarterly report to the Secretary of State. A further revision of 11 July 1924 (in WACB annual report 1924: 5) required the Board to publish a half-yearly abstract in the government gazettes of places where it had redemption centers. Further revisions of 2 September 1949 (in WACB annual report 1949: 15) and 23 March 1964 (in WACB annual report: 20-21) continued the requirement.

The *Nigeria Gazette* contains certain data as frequently as monthly. The government gazettes of other member colonies, which we have not searched, may contain similar data. We are missing data for the following months: semiannual data for the WACB from June and December 1943, June 1946, June 1955, June 1959 (some substitute data are available from the WACB annual report); monthly data for Nigeria from July 1954, May 1957, and March 1959. Data on notes from July 1922-June 1923 and July 1924-June 1925 are blurry in our photographs, but we think the number we took from them are accurate.

Annual reports contain monthly statistics on notes in circulation from June 1917 to June 1952, which we have supplemented with data from the *Nigeria Gazette*. The West African Currency Board also published quarterly statements of the main items of its balance sheet in the government gazettes of member countries from December 1916 to December 1923 and semiannual statements from June 1924 to at least December 1957.

The statement of June 1922 in the *Nigeria Gazette* gives a number for total note circulation far exceeding the same figure in the annual report of the West African Currency Board. We suspect that the figure for note circulation in the Gold Coast should have a negative sign in front of it, as it does in the surrounding months, instead of being positive. Making that change brings the *Gazette* figure for total note circulation much closer to the figure in the annual report.

The International Monetary Fund's *International Financial Statistics* database does not cover the West African Currency Board. It does, however, show country-level standardizations of the balance sheet data, which differs from our standardization, for Ghana starting in 1950, Sierra Leone in 1958, Nigeria in 1959 (the year it established a central bank), and Gambia in 1964 (the year it established a quasi currency board). The IMF does not show income and expenditure data.

Remarks on the balance sheet

How we constructed our standardized balance sheets

The accounting format the West African Currency Board used was by today's standards unusual, especially until it made changes in 1944. The balance sheet often referred to subaccounts rather than directly listing important items such as currency in circulation. The Board's original balance sheet (transcribed in the "raw data" spreadsheet) sometimes included fewer of its assets and liabilities than a typical balance sheet today would. To construct our standardized balance sheet, we sometimes had to supplement the original balance sheets with other data in the annual reports, rather than just repackaging the data in the original balance sheets. For instance, to determine the face value of silver and nickel-bronze coins in circulation before 1923, we had to look at shipments, issues, and redemptions, working forward from prior years or backwards from subsequent ones to arrive at figures for circulation.

For the years 1913 to 1922, we constructed the standardized balance sheet by the following procedure:

- (1) On the asset side, we started with total assets as shown in the original balance sheet.
- (2) Rather than valuing investments at cost, we valued them at mean market price, as the West African Currency Board's itself did starting with its 1944 balance sheet.
- (3) We then calculated the bullion value of silver coin in circulation, held at currency centers, or in transit. (The Board calculated silver bullion in store, and, we think, silver bullion in the course of realization [melting down] at its bullion value.) The original balance sheet excluded this item even though it was large. We valued the bullion in silver coins somewhat arbitrarily at half of the face value of the coins (33 pence per troy ounce), which was sometimes above and sometimes below the market price.
- (4) We added original total assets and the bullion value of silver coins in circulation to obtain standardized total assets.
- (5) On the liability side, we did not use the liabilities shown in the original balance sheet. Rather, we calculated total standardized liabilities as the sum of notes and coins in circulation, which for all years was greater than liabilities as shown in the original balance sheet. Figures for notes and coins in circulation do not appear in the original balance sheet; one must search the text to find them. We counted nickel-bronze coins as a liability even though the West African Currency Board made no definite

arrangements for redeeming them into the pound sterling until the 1932 financial year, although in practice it had previously made redemptions in special circumstances (WACB annual report 1932: 5).

(6) We calculated standardized net worth as standardized assets minus standardized liabilities, and placed it on the liability side of the standardized balance sheet.

Readers should interpret cautiously the negative net worth figures that our standardized balance sheet shows in some years from 1913 to 1923. They are an artifact of the way we constructed the standardized balance sheet, especially our valuation of the silver in coins; they were not in the original balance sheet; and they did not affect the Board's behavior.

From 1923 to 1943, almost all the data in the standardized balance sheet come from the General Position, an accounting concept that was more like a present-day balance sheet than the Board's official balance sheet then was. From 1944 to 1971, almost all the data in the standardized balance sheet come from the original balance sheet.

We classify West African silver coins in the balance sheet as foreign assets because their high silver content gave them substantial value as metal; indeed, the West African Currency Board eventually withdrew them from circulation because their value as metal threatened to exceed their face value. In contrast, we do not classify alloy, nickel-bronze, or cupro-nickel coins as foreign because their face value far exceeded their value as metal.

Remarks on the original balance sheets

1923: The annual reports (starting with WACB annual report 1923: 15) began to show the General Position, an accounting concept that was more like a present-day balance sheet than the Board's official balance sheet then was.

1930: The value of investments began to be listed at their current market value instead of at their cost price as hitherto in the main accounts, and appreciation in the market value of investments was carried to a new Investment Reserve Account as a reserve against possible depreciation. (The General Position, not part of the main accounts, but the basis of our standardized balance sheet, already listed investments at market value.) The items "currency issued" and "currency withdrawn" formerly included in the Manufacture, Issue and Withdrawal Account were passed through to a new Issue and Redemption Account. The balance of the Manufacture, Issue and Withdrawal Account was transferred to the Profit and Loss Account (WACB annual report 1930: 6).

1944: The balance sheet began to include the total face value of West African currency in circulation as a liability, rather than only including the balance of the Currency Reserve Fund as previously. The Board ceased to publish the General Position (WACB annual report 1944: 6).

1950: The Board incurred a contingent liability, initially £10,000 and a bit less, for notes stolen from a consignment of shipped by sea aboard the M.V. Apapa in September 1949. Only a few of the notes seemed to have found their way into circulation, and the crew members suspected of the theft were all imprisoned, so the Board decided to list the notes as a contingent liability rather than as a definite loss. The contingent liability remained until 1957; it ceased to be mentioned in the 1958 balance sheet (WACB annual report 1950: 4-5, 12; 1957: 16; 1958: 16).

1951: The assets contain two Suspense Account items. The first, for £10,733/10s./0d. seems to be a mistake, because without it the assets and liabilities balance. Accordingly, we omit it.

1958: From this year onward the original balance sheet excludes the value of the metal content of coins in circulation (WACB annual report 1958: 16).

1959: The balance sheet began a permanent shrinkage as Ghana became the first country to replace West African currency with nationally issued currency (WACB annual report 1951: 12).

1966: The liability side of the balance sheet shows the circulation of silver coins as being 4 shillings less than the "Value of Circulation" table (WACB annual report 1966: 4, 16). Each figure balances the accounts of which it is a part, and because the difference is so small we have not reconciled them.

Remarks on the income and expenditure statement

How we constructed our standardized income and expenditure statements

The income/expenditure statements of the West African Currency Board include flows of currency issued and redeemed. Hence to construct our standardized statements we followed the procedure described above in the section “Format of the standardized income and expenditure statement.”

Our starting point for the years 1913-1969 was the original income/expenditure statement. From 1970-1973, after the Board had ceased to issue new currency and was moving toward liquidation, it ceased to issue an income/expenditure statement, so our starting point was the Profit and Loss Account.

Remarks on the original income and expenditure statements

1949: In the disbursements (expenditures), the total for the cost of manufacture of West African currency is £90 more than the sum of the subitems. The total is, however, the correct amount to balance disbursements with receipts (income). Accordingly, we arbitrarily increase the cost of manufacture of currency notes by £90 compared to the original data to achieve balance.

1970: The West African Currency Board consolidated the income/expenditure statement and most other accounts other than the balance sheet into the Profit and Loss Account. The reason for this step was that the Board’s financial affairs were becoming simpler: it had ceased issuing new currency and was moving towards liquidation (WACB annual report 1970: ; 1971: 4).

Remarks on other accounts and data

The annual reports contain the following additional accounts, many of whose balances are entries in the balance sheet. The names of some accounts varied over the course of their existence. From 1913-1923 the West African Currency Board had four basic types of accounts: manufacture and issue accounts; profit and loss accounts; funds showing coins or notes in circulation and the corresponding reserves; and other accounts. In turn, each of the first three types of accounts was subdivided into accounts for silver coins, nickel bronze coins, alloy coins, and notes (paper money). In 1924 the Board simplified its accounts by ceasing to subdivide them into those for notes and different types of coins. In 1930 the Board introduced new accounts to distinguish more clearly the cost of manufacturing currency from issues and withdrawals of currency, and to show appreciation or in the market value of investments rather than carrying them at cost in certain accounts. In 1944 the Board revised the accounts again, dropping some accounts and adding others. From 1969-1971 the Board made a final reorganization of accounts, drastically simplifying them because it was near the end of its existence, with a shrinking balance sheet that required fewer entries to show details.

Accounts below that lack dates appeared throughout the period under which they are listed.

Accounts 1913-1923

The first annual report covered the period 26 June 1913-30 June 1914 — that is, a very short first financial year and a second year of normal length.

- New Silver Coinage Account (Silver Coinage Manufacture and Issue Account): 1913-1921. Issuance of West African silver coins to replace existing silver coins, mainly British. Account ceased in 1921 because the Board ceased having new silver coins minted for it.
- New Nickel Bronze Coinage Account (Nickel Bronze Coinage Manufacture and Issue Account): 1915-1923. Issuance of nickel bronze coins.
- Alloy Coinage Manufacture and Issue Account: 1921-1923. Issuance of alloy coins. Begun when the Board began issuing alloy coins to replace silver coins.
- Currency Note Issue Account: 1918-1923. Issuance of notes (paper money), which began only after the board had already been issuing only coins during its first several years.
- Profit and Loss Accounts (Silver Coinage). Various expenses connected with silver coins.

- Nickel Bronze Coinage Profit and Loss Account: 1915-1923. Various expenses connected with nickel bronze coins.
- Alloy Coinage Profit and Loss Account: 1921-1923. Various expenses connected with alloy coins. Begun when the Board began issuing alloy coins to replace silver coins.
- Currency Note Profit and Loss Account: 1917-1923. Various expenses connected with notes (paper money). The board at first issued only coins; notes did not come until later.
- Silver Coinage Fund: 1917-1923. Silver coins in circulation and reserves held against them.
- Nickel Bronze Coinage Fund: 1917-1923. Nickel bronze coins in circulation and reserves held against them.
- Alloy Coinage Fund: 1922-1923. Alloy coins in circulation and reserves held against them. Begun when the Board began issuing alloy coins to replace silver coins.
- Note Guarantee Fund: 1917-1923. Notes in circulation and reserves held against them.
- Insurance Account: 1913-1919. Insurance for shipment of coins to West Africa.
- Freight Account: 1914-1919. Cost of shipments of coin to and from West Africa.
- United Kingdom Silver Coinage Account: 1914 only. Handling costs for retirement of British silver coins circulating in West Africa.
- Repatriation Account (Silver Coinage Repatriation Account): 1913-1918. Value of British coins retired from circulation in West Africa.

Accounts 1924-1929

- Manufacture, Issue and Withdrawal Account: Incorporated items that in the previous period were in the New Silver Coinage Account (Silver Coinage Manufacture and Issue Account); New Nickel Bronze Coinage Account (Nickel Bronze Coinage Manufacture and Issue Account); Alloy Coinage Manufacture and Issue Account; Currency Note Issue Account; Freight Account; and Insurance Account.
- Issue and Redemption Account: 1936 and 1940 only.
- Investment Reserve Account: 1936 and 1940 only.
- Currency Reserve Fund: Incorporated items that in the previous period were in the Alloy Coinage Fund, Nickel Bronze Coinage Fund, Silver Coinage Fund, and Note Guarantee Fund.
- Profit and Loss Account: Incorporated much of these accounts from the previous balance sheet: Alloy Coinage Profits and Loss Account; Nickel Bronze Coinage Profit and Loss Account; Currency Note Profit and Loss Account; Profit and Loss Accounts (Silver Coinage).

1930-1943

- Manufacture and Supply Account: Continued from previous period, but excluded “currency issued” and “currency withdrawn” during the years they were included in the Issue and Redemption account.
- Issue and Redemption Account: Took the “currency issued” and “currency withdrawn” items that at other times were included in the Manufacture, Issue and Withdrawal Account.
- Investment Reserve Account: After the basis of carrying investments on the balance sheet was changed from cost price to market value, appreciation in the market value was apportioned to this account as a reserve against possible depreciation.
- Currency Reserve Fund: Continued from previous period.
- Profit and Loss Account: Continued from previous period.

Accounts 1944-1970

- Issue and Redemption Account: 1944-1969. Took some items that in the previous period were in the Manufacture, Issue and Withdrawal Account. Ceased in 1969 because by then the Board was no longer issuing currency, and redemptions were tiny.

- Income Distribution Account: 1962-1969. Took some items that previously were in the Profit and Loss Appropriation Account. This account existed during a period when the Board's was distributing much of its surplus because the end of its life was in sight and it no longer needed much of a surplus.
- Currency Reserve Fund: Continued from previous period. Took some items that in the previous period were in the investment Reserve Account.
- Investment Account: 1944-1969. Took some items that in the previous period were in the Currency Reserve Fund and in this period seem to continue to be cross-listed there. Ceased in 1969 because by then the Board's investments were small.
- Profit and Loss Account: Continued from previous period. Took some items that in the previous period were in the Manufacture and Supply Account.
- Profit and Loss Appropriation Account: Showed payments to West African governments, which in the previous period were in the Profit and Loss Account.

Accounts 1971-1973

- Profit and Loss Account: Incorporated all other previously separate accounts.

Other data

The annual reports also contain monthly data on note circulation, a statement showing the securities in which the West African Currency Board invested, and other information we have partly or fully entered into spreadsheets. Many of the data series are only available for part of the Board's existence.

Deviations from orthodoxy

In early 1919 the demand for silver coins was such that, to enable the West African Currency Board to release stocks of coin held in reserve, the government of Nigeria in March 1919 passed a law permitting the Board to delay encashment of notes (into silver coins) for up to three months, subsequently extended until finally ended on 15 June 1921. Notes continued to be convertible without delay into payment on London. Demand for notes was such that during the 1919 financial year, none were presented to be cashed into silver coins. Notes were presented in exchange for payment in London in 1920 (WACB annual report 1919: 2; 1920: 2; 1921: 3).

The West African Currency Board made a loan to the government of Gambia in the 1922 financial year. The Board lent £407,950 to Gambia to enable its government to pay for French silver 5-franc pieces that had been legal tender but were being demonetized during a period when the paper French franc was depreciating against the pound sterling. Gambia paid the Board £220,057, the proceeds from selling the coins as silver bullion, leaving a balance of £187,893 that Gambia owed to the Board. Gambia repaid the loan gradually, finally extinguishing it in the 1933 financial year (WACB annual report 1922: 3; 1933: 6). The board also held fairly small amounts of local securities (never more than 6.3% of its total assets) in the financial years 1920-1922 and 1926, and again (never more than 11.2% of its total assets) in the financial years 1957-1966, when it was shrinking as member countries began issuing national currencies to replace West African currency. The Board advanced some funds to member countries for the exchange of its currency for new national currencies. We do not count the advances as deviations from orthodoxy because their purpose was to speed redemption of the Board's own currency, not to provide deficit financing to governments.

In the 1925 financial year, British West African colonies passed legislation to prevent unlicensed imports of gold coins current in the United Kingdom (WACB annual report 1925: 4). The purpose of the legislation was to support British policy on the gold standard; it did not affect the convertibility of the West African pound into the pound sterling, so it was not a type of exchange control on convertibility into the anchor currency and hence not a deviation from orthodoxy.

Readers who examine the "Statement of Investments," which appears near the end of the annual reports, should be aware that references to "local loans" means investments in British municipal

securities, not investments in securities of British West African governments. Hence “local loans” were not a deviation from orthodoxy.

Other remarks

We thank Bryant Lie and Seung Jae (Johnny) Oh for digitizing the data from the government gazette.

1914: The West African Currency Board issued £232,200 in British silver coins to meet a brisk demand that it could not fully satisfy with its own coins (WACB annual report 1914: 3).

1915: On 1 January 1915, the British government transferred liability for West African nickel-bronze coins from local governments to the West African Currency Board (WACB annual report 1915: 4). The Board made no definite arrangements for redeeming the coins into the pound sterling until the 1932 financial year, although in practice it had made redemptions in special circumstances (WACB annual report 1932: 5). Until the Great Depression, it appears that the demand for the coins increased almost constantly, making the question of redemption largely moot in practice.

1915-1917, 1919: Before the West African Currency Board began issuing its own notes (paper money), it briefly acted as an agent for the issuance of £260,000 British notes during a large, sudden increase in demand for currency that began about October 1915. At the time, the Bank of England issued notes for £5 and up, while the British Treasury issued notes for £1 and 10 shillings (£0.50). The West African Currency Board acted as an agent for both kinds of notes. It began issuing the British notes in late 1915. By June 1917 it had retired all the notes that the public seemed to want to redeem. The board also issued £200,000 of British notes in 1919 (WACB annual report 1916: 2; 1917: 3; 1919: 2).

1916: On 11 July 1916 the West African Currency Board began issuing notes of 10 shillings and £1 on a large scale under Nigeria, Ordinance No. 11, 3 May 1916, although the annual report for financial 1916 shows £9 in notes outstanding at the end of June 1916 (WACB annual report 1916: 4-5, 17; 1917: 3).

1918: The annual report starts to show monthly figures for West African notes in circulation. We transcribe the figures into our spreadsheet until they cease in June 1952. The annual reports contain no monthly series for coins in circulation, which for many years exceeded notes in circulation.

1920: Demand for coins was so great that there was a temporary shortage. Africans generally preferred coins to notes because coins were more durable. During the harvest season of this year, African farmers were willing to accept lower prices for crops if paid in coin than if paid in notes (WACB annual report 1920: 2).

Circa 1920: The rapid expansion and contraction of the Board's balance sheet after World War I reflects the effects of a postwar commodity boom and bust on demand for currency.

1937: In this financial year, the Board purchased £2,430,000 of Bank of England £1 notes to respond to a sudden increase in demand for currency resulting from a cocoa boom. The Board took this unusual step because it was unable to increase its own note issue quickly enough to respond to demand, because of difficulty in securing watermarked paper used to print the notes.

1951: The Board began to publish statistics on how much of its note circulation was held by banks as opposed to held by the public (WACB annual report 1951: 4). The series extends back to 1949. An earlier estimate (WACB annual report 1937: 6) indicates that probably as much as half the circulation was held by banks at the time.

1965-1973: Starting in 1965, the annual reports mention that more 10-shilling notes had been redeemed than were recorded to have been issued. By the time of the final report in 1973, the cumulative excess was £23,971 (WACB annual report 1965: 6; 1973: 4). The reports do not discuss the reason for the discrepancy. We infer that it was the result of an earlier theft.

We believe that notes of the West African Currency Board had distinctive serial prefixes or numbers for each colony, although the notes were accepted throughout the Board's territory. WACB annual report (1960: 5) remarks that checks made by the Board had shown that up to 14% of the notes circulating in any area had been issued elsewhere.

Counterfeiting of notes and coins occurred (WACB annual report 1937: 5; 1939: 5; 1943: 5). It does not seem to have been any more of a problem than in other monetary systems. Thefts of notes and coins occurred for sums of £10,000 of notes in the 1950 financial year, £2,000 of coins in the 1961 financial year, and £23,971 or somewhat more (because some notes may not have been redeemed) in 10-shilling notes at an undetermined time (WACB annual report 1950: 4-5, 12; 1956: 6; 1965: 6; 1973: 4).

For a description of the kinds of native and foreign currency in use in 1930, see WACB annual report (1930: 5-6).

References

Nigeria. 1914-1959. *The Nigeria Gazette* (1914-1954); *Federation of Nigeria Official Gazette* (1954-1959). Lagos: Published by Authority.

WACB. Great Britain (United Kingdom). West African Currency Board. Annual report. 1913/1914-1972/1973. *Report of the West African Currency Board for the Period Ended 30th June 1914* (1913/1914); *Report of the West African Currency Board for the Year Ended 30th June ...* (1914/1915-1971/1972); *Final Report of the West African Currency Board for the Period 1st July, 1972 to 31st October, 1973* (1972/1973). London: Darling and Sons for His Majesty's Stationery Office (1913/1914-1917/1918); His Majesty's Stationery Office (1918/1919-1919/1920); Waterlow and Sons (1920/1921-1972/1973?; from 1965 onward, no publisher is listed, but the typography remains the same until 1970, suggesting that the publisher was also the same at least until then). Unless indicated otherwise, facts mentioned in the text will be found in the report covering the financial year for which they are mentioned. The text above lists financial years under the calendar years they end.

Spreadsheets

Annual and high-frequency done.

Western Samoa (now Samoa)

Name, headquarters, dates, membership

Western Samoa Treasury (headquarters Apia, Upolu, Western Samoa [now Samoa]), 1921?-31 March 1959.

New Zealand forces began occupation of Western Samoa on 29 August 1914, during the First World War, taking the territory from Germany. Western Samoa became a League of Nations mandate, and later a United Nations trust territory, of New Zealand. The occupation forces issued notes sometime before the first bank was established. In practice, the notes were a responsibility of the New Zealand Treasury (Chappell 1961: 281 and e-mail correspondence from Yuri Wierda, numismatist, 30 December 2005). They were not required to have any specific backing until 1921. The currency board was replaced by a central bank, the Bank of Western Samoa, which opened on 1 April 1959. The bank was a joint venture between the government of Western Samoa and the privately owned Bank of New Zealand. The bank took over the business of the former branch of the Bank of New Zealand. The Bank of Western Samoa was established in preparation for Samoa's upcoming independence from New Zealand (Crick 1965: 141).

Legislation

- New Zealand, Samoa Act 1921 (cited in New Zealand Department of Island Territories report on Western Samoa 1950: 28): The New Zealand act required issues of notes by the Samoan Treasury to be backed at least 100% by investments with the New Zealand Treasury.
- Western Samoa, Bank of Western Samoa Ordinance, February 1959: Established the Bank of Western Samoa, a central bank that also had central banking functions, to take over note issue.

Exchange rate and currency system

The exchange rate was Western Samoa £1 = New Zealand £1.

Currently we have no information on commission fees or minimum transaction sizes.

Like New Zealand and the United Kingdom at the time, Western Samoa used the nondecimal pounds-shilling-pence system, under which £1 = 20 shillings (abbreviated "s.") = 240 pence (or pennies, abbreviated "d." from the Latin *denarius*, an ancestor of the penny). The currency board issued notes of 10 shillings, £1, and £5. Samoa used New Zealand coins throughout the period of the currency board.

Financial year; sources of data

The financial year ran from April 1 to March 31.

We have only a few issues of the Western Samoa government gazette with information on note issue. [More on microfilm at LOC, or in London? League of Nations may have data, otherwise we will need to check New Zealand libraries or archives, since it was a New Zealand trusteeship territory.]

We found limited quarterly data in the government gazette.

The International Monetary Fund's *International Financial Statistics* database does not cover Samoa (then called Western Samoa) during the period of the currency board.

Remarks on the balance sheet

The balance sheet shows the assets and liabilities of the government as a whole, not just the currency board. We believe that Western Samoa did not publish a separate financial statement for the currency board because the territory and the government were too small for it to be worthwhile.

Remarks on the income and expenditure statement

We found no separate income and expenditure items for the currency board.

Remarks on other accounts and data

None.

Deviations from orthodoxy

New Zealand's Samoa Amendment Act, 1953, provided that the New Zealand Minister of Finance might "fix a rate of exchange between New Zealand and Western Samoa," thereby introducing the potential for an independent exchange rate policy. In practice this power went unused.

Other remarks

None.

References

- Bank of Western Samoa. Annual report. 1960-1984. *Annual Report for the Year Ended* Apia: Bank of Western Samoa.
- Chappell, N. M. 1961. *New Zealand Banker's Hundred: A History of the Bank of New Zealand, 1861-1961*. Wellington: Bank of New Zealand.
- Crick, W[ilfred] F. 1965. *Commonwealth Banking Systems*. Oxford: Clarendon Press.
- New Zealand. Report on Western Samoa. Department of Island Territories. 1923/1924-1961? *Territory of Western Samoa*. Wellington: Government Printer. (The 1949 issue is entitled simply *Western Samoa*; also appeared as *Report on the Administration of the Territory of Western Samoa for the Year Ended....*)
- New Zealand. External report on Western Samoa. 1920/1921-1960? *First [etc.] Report of the Government of New Zealand on the Administration of the Mandated Territory of Western Samoa for the Year Ended March 31st...* (1920/1921-1922/1923); Department of External Affairs, *Third [etc.] Report of the Government of New Zealand on the Administration of the Mandated Territory of Western Samoa for the Year Ended March 31st...* (1923/1924-1939?); *Report by the New Zealand Government to the Trusteeship Council of the United Nations on the Administration of Western Samoa for the Year Ending 31st March ...* (1949 only?); *Report by the New Zealand Government to the General Assembly of the United Nations on the Administration of Western Samoa for the Calendar Year ...* (1951?-1960?). Geneva: League of Nations (1920/1921); Wellington: Prime Minister (1921/1922); Wellington: Government Printer (1923/1924-1960?). [Schuler to recheck this in microfilm]
- Western Samoa. Gazette. 1920-1997. *Western Samoa Gazette* (1920-1997). In Samoan, there is *O Le Savali* (1905-present?). Both published in Apia.

Spreadsheets

Annual done for now (further data may not be available in the USA); no high-frequency.

Yemen Arab Republic (North Yemen; now part of Yemen)

Name, headquarters, dates, membership

Lajnat al-Naqd (Yemen Currency Board), headquarters Sana'a, Yemen Arab Republic (North Yemen). The board began operations on 8 May 1964 and continued until December 1967.

The rationale of the board was to issue a national currency, which the Yemen Arab Republic (North Yemen) had not previously had. Instead, the silver Maria Theresa thaler had been the dominant unit and other foreign currencies had been used alongside it. (There was a local coinage, but it was insubstantial.) Officially the system was a currency board, but the English economist Brian Kettell, who has made a study of Middle Eastern monetary system, informs us that there is some doubt whether balance sheet information is accurate, and therefore whether the monetary authority actually complied with the legal requirements. The currency board system ended with a change of the law in December 1967 which allowed the monetary authority to hold Yemeni government securities.

Legislation

- Yemen Arab Republic, Law No. 6, 3 February 1964 (cited in Central Bank of Yemen annual report, 30 June 1972: 28): Established the Yemen Currency Board.
- Yemen Arab Republic, Concerning the Establishment of the Currency Board and the Issuance of Paper Currency, Presidential Decree Law No. 8, 3 February 1964 (partly published in Yemen Currency Board annual report, 1964/1965): Provided rules for the operation of the currency board.
- Yemen Arab Republic, amendment to Law No. 6 of 1964, November 1964: Allowed convertible foreign exchange and foreign securities to count as reserves, rather than only gold and silver as was apparently the case previously (Central Bank of Yemen annual report, 30 June 1972: 28).
- Yemen Arab Republic, Law No. 11, 8 March 1965 (cited in Yemen Currency Board annual report, 1964/1965): Allowed for exchange of Maria Theresa thalers into Yemeni rials at one-to-one until 30 April 1964, then abolished their legal tender quality and penalized holders starting on 1 May 1965.
- Yemen Arab Republic, amendment to Law No. 6 of 1964, December 1967: Gave the Yemen Currency Board some discretionary powers, in effect converting it into a monetary institute. The Board was allowed to hold Yemeni government securities, ending 100% foreign reserve cover of monetary base and converting the monetary authority from a currency board to a monetary institute. Although we have not seen the annual reports of the monetary authority for this period, the first annual report of the successor central bank says, "Issue of notes against treasury bills started in 1968 and expanded substantially in the following years" (Central Bank of Yemen annual report, 30 June 1972: 28).

Exchange rate and currency system

The exchange rate was 3 Yemeni rials = UK£1, or 1 Yemeni rial = 0.892427g gold = approximately US\$0.93.

Currently we have no information on commission fees or minimum exchange sizes.

The Yemeni rial was a nondecimal currency divided into 40 buqsha, 80 halala, or 160 zalat. (Decimal coinage was not introduced until 1974, The currency board issued notes of 10 and 20 buqsha and 1 to 10 rials. It did not issue coins, which we infer were issued by the Treasury.

Financial year; sources of data

The financial year was July 1 to June 30.

We only have one balance sheet, in Arabic, for the currency board's first full financial year plus a few previous months (6 February 1964-30 June 1965). [Need to rephotograph two landscape layout pages from Joint Library where right column is obscured by binding.]

We found no published high-frequency data, although our access to published sources on the Yemen Arab Republic is poor. We did not search the government gazette, if one exist, because we do not read Arabic.

The International Monetary Fund's *International Financial Statistics* database has no data before 1990, when North Yemen and Southern Yemen united, although paper copies of the publication have data starting [date—see South Arabian Currency Board entry also].

Remarks on the balance sheet

The Yemen Currency Board held assets in gold, silver, pounds sterling, and U.S. dollars. It held many of its reserves with the Central Bank of Egypt, because of close political connections between Yemen and Egypt at the time.

Remarks on the income and expenditure statement

None.

Remarks on other accounts and data

None.

Deviations from orthodoxy

Yemen, Law on Currency Supervision, May 1964 (cited in Yemen Currency Board annual report 1964/1965) apparently imposed exchange controls. The annual report implies that there were controls. The exchange rate of the Yemeni rial in the Aden market, the nearest free market, was depreciated from the official rate. (At the time, Aden was a British colony, not united with North Yemen.)

To repeat, the English economist Brian Kettell, who has made a study of Middle Eastern monetary system, informs us that there is some doubt whether balance sheet information is accurate, and therefore whether the monetary authority actually complied with the legal requirements.

Other remarks

We thank Patrick Mardini for translating and digitizing the statistics.

As mentioned above, initially the currency board apparently was only allowed to hold gold and silver as foreign reserves, although that quickly changed.

Before the currency board the main currency in use had been the Maria Theresa thaler, a silver coin. The Yemeni rial was intended to be initially equal in value to the Maria Theresa thaler. Because of a price differential in the Aden market, though, few Maria Theresa thalers were exchanged for Yemeni rials.

References

Bank al-Markazī al-Yamanī (Central Bank of Yemen). Annual report. 1971/1972-present. *Annual Report*.

Sana'a: Central Bank of Yemen, Research Department. (North Yemen and united Yemen. We assume that English versions exist for all years, but we have not seen them all. Also in Arabic. All references are to the English translation.)

Lajnat al-Naqd (Yemen Currency Board). Annual report (in Arabic). 1964/1965. Sana'a: Lajnat al-Naqd. (We only have the first annual report, for 1964/1965, specially translated for us by Patrick Mardini.)

Spreadsheets

Under construction.

Zanzibar (now part of Tanzania)

Name, headquarters, dates, membership

1 April[?] 1908 to 31 December 1935.

[Rationale for establishment.] On 1 January 1936 Zanzibar joined the East African Currency Board, to which nearby Tanganyika (now the mainland of Tanzania) and Kenya belonged.

Legislation

- Zanzibar, Currency Decree, No. 3 of 1908: Established a government note issue. Was this a currency board system from the start, or did it only become one in 1916, as we currently think? The system may have been a currency board de facto before establishing a formal structure.
- Zanzibar, Currency Decree, No. 3, 14 February 1916: Established a currency board.
- Zanzibar, Decree No. 7 of 1920: Made revisions to the 1916 decree.
- Zanzibar, Decree No. 1 of 1922: Made revisions to the 1916 decree.
- Zanzibar, Currency Decree of 1935: Zanzibar ceased its local currency board issue and joined the multicolonial East African Currency Board.

Exchange rate and currency system

The exchange rate was 1 Zanzibar rupee = 1 Indian rupee.

Currently we have no information on commission fees or minimum exchange sizes.

The Zanzibar rupee was a nondecimal currency. Like the Indian rupee at the time, it was subdivided into 16 annas, 64 paises (pice; 4 pice = 1 anna), or 192 pies (12 pies = 1 anna).

The currency board issued notes of 5, 10, 20, 30, 50, and 100 Zanzibar rupees. The currency board did not issue coins, which were issued by the government. Indian coins were legal tender and circulated along with local coins.

Financial year; sources of data

The financial year for the currency board ran from 1 April to 31 March.

Some information is available in the annual colonial report. [We also need to check the gazette and blue book.]

The International Monetary Fund's *International Financial Statistics* database does not cover Zanzibar during the period of its local currency board.

Remarks on the balance sheet

To come.

Remarks on the income and expenditure statement

To come.

Remarks on other accounts and data

To come.

Deviations from orthodoxy

To come.

Other remarks

To come.

References

To come.

Spreadsheets

Under construction.

III. SPREADSHEETS (IN ACCOMPANYING FOLDER OR FILES)

All or almost all of the currency boards listed above have accompanying workbooks in Excel. For the common format of the workbooks, see above near the start of section I. For convenience, the folders are in a Zip folder. Some workbooks, including a summary of currency in circulation, will not appear until later.