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Johns Hopkins Institute for Applied Economics,
Global Health, and the Study of Business Enterprise

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The Studies in Applied Economics series is under the general direction of Professor Steve H. Hanke, Founder and Co-Director of the Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise (hanke@jhu.edu). The authors are mainly students at The Johns Hopkins University in Baltimore. The views expressed in each working paper are those of the authors and not necessarily those of the institutions that the authors are affiliated with.

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Abstract

A "money doctor" is a foreign expert, usually invited by a country's government but sometimes working outside it, whose proposals for monetary reform are adopted by the government, at least in part. From the mid 1800s to present day, there have been a number of money doctors across the globe, whose reforms have ranged from the introduction of central banking to the implementation of currency boards. This paper discusses six major reforms—namely, currency stabilization, the adoption of the gold standard, central banking, domestic development projects (DDPs), currency boards, and dollarization—of dozens of money doctors worldwide and analyzes the sustainability and longevity of the reforms themselves.

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Keywords: money doctor, reform, central bank, currency board, dollarization, gold standard

JEL codes: B29, E58, F39, N10

1. Introduction

At one point or another, almost every country has experienced some kind of "economic illness." These illnesses—call them "economic maladies," if you will—can present themselves in a variety of symptoms, ranging from war-induced general turmoil to insolvent banks and even hyperinflation-caused currency collapses. In the initial stages of an illness, a country might try "home remedies"—that is, stimulation strategies performed by the country's central monetary authority using local resources and means—to either treat the symptoms of the illness or eliminate the illness altogether, but after several futile attempts, its leaders may realize that they are exposing it to even further vulnerability. It is at this point that the country may opt to call on the help of a "money doctor": a foreign expert, usually invited by a country's government but sometimes working outside it, whose proposals for monetary reform are adopted by the government, at least in part.

This paper examines the work of dozens of such money doctors worldwide from 1860 to the present. There have been a number of previous books and articles about money doctors, listed in the References, but ours is the first attempt at a comprehensive list. What we have found is that although differing slightly from country to country, the reforms of money doctors have fallen into six broad categories: currency stabilization (which the table below calls "currency reform" to save space), implementing the gold or gold exchange standard, creating or reforming a central bank, applying ideas for domestic development projects and policies (DDP), adopting a currency board, or dollarization. Almost always, money doctors come from richer countries to treat the problems of poorer ones.

To qualify, money doctors had to operate from 1860-2022, had to be from an outside country, and had to have their monetary proposals implemented by the local government, at least in part, and at least in part because of their involvement. We generally excluded officially appointed experts of a metropolitan country recommending reforms in colonies. We also excluded foreign experts working for international organizations, because they likewise are not true outsiders. (We will discuss some exceptions.) Where money doctors have also been involved in monetary reforms in their own countries, we have also listed those countries to give a broader idea of their activities. We excluded economic stabilization proposals that did not have a monetary policy component, such as those designed only to address debt problems; examples include many proposals made by prominent economists after World War I regarding reparations that peace treaties imposed on Germany and some other countries.[1]

Beginning on the next page is a list summarizing all the money doctors, their nationalities, their years of reform, their countries of reform, and their types of reform.

[1] Among the important economic, business, and political figures whose involvement focused on debt and only incidentally, if at all, included monetary reform were Robert Brand, William Wilson Cumberland, Charles Dawes, John Foster Dulles, Seymour Parker Gilbert, Robert Kindersley, Thomas Lamont, Russell Leffingwell, Edwin Montagu, etc. The list also omits people who were important in supporting monetary reforms but who did not themselves initiate them, such as Montagu Norman and Benjamin Strong in the 1920s.

Figure 1: Overview of Money Doctors

Name (1)	Life Dates	National -ity	Country of Reform	Years of Reform (2)	Type of Reform	Source
Frank Altschul	1887-1981	American	France	1924	Currency reform	Yale University (n.d.)
Joseph Avenol	1879-1952	French	Austria Bulgaria Greece Hungary China	1921-22 1923-28 1923-28 1923-28 1929-31	Curr. reform, DDP DDP DDP DDP DDP	Warnock (2015) IO-Bio (n.d.) IO-Bio (n.d.) IO-Bio (n.d.) Goto-Shibata (2017)
Thomas Balogh	1905-1985	Hungarian -British	Jamaica	1957	DDP	Hanke-Schuler (1995)
Arthur Bloomfield	1914-1998	Canadian-American	South Korea	1949-50	Central bank	Alacevich/Asso (2009)
George A. Blowers	1906-1969	American	Liberia Ethiopia Libya Saudi Arabia	1943 1945 1950-51 1952-54	Dollarization Central bank Currency board Central bank	Wikipedia Spencer (1984) Blowers/McLeod 1952 Young (1983)
"Chicago Boys"	N/A	Chilean	Chile	1970s-80s	DDP	Flandreau (2005)
René Charron	1894-19??	French	Bulgaria	1926-28	Currency reform	League of Nations 1945
Charles A. Conant	1861-1915	American	Philippines Mexico Panama Nicaragua	1901 1903 1904 1911-12	Gold standard Gold standard Gold standard Gold std., ctl. bk.	Conant (1901) Rosenberg (1985) Rosenberg (1985) Young (1925)
Jean Gustave Courcelle-Seneuil	1813-1892	French	Chile	1860-78	Free banking	Briones (2002), Flandreau (2005)
George Jackson Eder	1900-1999	American	Bolivia	1956-57	Currency reform	Eder (1968)
John Exter	1910-2006	American	Philippines Ceylon	1949 1951	Central bank Central bank	United States (1947) Exter (1949)
Walter Gardner	?-19??	American	Cuba	1941	Central bank	Fed (1942)
John G. Greenwood	19??-	British	Hong Kong	1983	Currency board	Greenwood (2022)
David L. Grove	1918-2016	American	Guatemala Ecuador Philippines	1945 1947 1949	Ctl. bank reform Ctl. bank reform Central bank	No good source found No good source found United States (1947)
Steve H. Hanke	1942-	American	Argentina Albania* Yugoslavia* Russia* Estonia Lithuania Kazakhstan* Jamaica* Venezuela* Bulgaria Bosnia Indonesia* Montenegro Ecuador UAE*	1989-99 1991 1991 1991-99 1992 1993-94 1994 1995-96 1995-96 1997 1997 1998 1999 2000-02 2008-14	Currency board Currency board Currency board Currency board Currency board Currency board Currency board Dollarization Currency board Currency board Currency board Currency board Dollarization Dollarization Currency reform	Hanke (2022) Hanke (2016) Hanke (2016) Hanke (2016) Hanke (2022) Hanke (2022) Hanke (2016) Hanke (2016) Hanke (2016) Hanke (2022) Hanke (2022) Hanke (2016) Hanke (2022) Hanke (2022) Hanke (2020)

Hugh H. Hanna	1879-1948	American	Panama	1903	Gold standard	Rosenberg (1985)
F. C. Harrison	18??-19??	American	Nicaragua	1911-12	Gold standard	Young (1925)
Jacob Hollander	1871-1940	American	Puerto Rico Dom. Rep.	1899 1905	Dollarization Dollarization, DDP	Rosenberg (1985) Rosenberg (1985)
Jeremiah Jenks	1856-1929	American	Mexico Panama Nicaragua	1903 1903 1918-25	Gold standard Gold standard Unclear	Rosenberg (1985) Rosenberg (1985) No good source found
John P. Jensen	?-19??	American	South Korea	1949-50	Central bank	Alacevich/Asso (2009)
Lars Jonung	1944-	Swedish	Estonia	1992	Currency board	Hanke (2022)
Nishihara Kamezo	1873-1954	Japanese	China	1917	Gold standard	Schiltz (2012)
Edwin W. Kemmerer	1875-1945	American	Philippines Guatemala Colombia South Africa Chile Poland Ecuador Bolivia Colombia Peru	1903 1919 1924 1924 1924 1925 1926 1926 1927 1930-31	Gold standard Central bank Central bank Gold standard Central bank Currency reform Central bank Central bank Central bank Central bank	Kemmerer (1905) Kemmerer/Dalgaard Drake (1989) Richards (1925) Drake (1989) Allen (2020) Drake (1989) Drake (1989) Drake (1989) Drake (1989)
John Maynard Keynes	1883-1946	British	North Russia World	1918 1944	Currency board IMF, World Bank	Hanke/Schuler (1991) Horsefield (1969)
Frederick Leith-Ross	1887-1968	British	China	1935-36	Currency reform	Leith-Ross (1968)
John B. de Loynes	1909-1969	British	Ghana Nigeria Sierra Leone Gambia Mauritius	1956 1957 1961 1966 1969	Central bank Central bank Central bank Central bank Central bank	Uche (2000) Uche (2000) Uche (2000) Uche (2000) Bk. of Mauritius (1968)
David Lipton	1953-	American	Poland Slovenia Russia	1989 1991 1992	DDP Currency reform DDP	Sachs (1993) Sachs (1992) Sachs (1997)
Hermann Max Coers	1893-1974	German- Chilean	Venezuela Nicaragua	1939 1940	Central bank Ctl. bank reform	Colmenares (2009) Colmenares (2009)
Alexander N. McLeod	1911-2007	Canadian	Libya	1950-51	Currency board	Blowers/McLeod 1952
Jean Monnet	1888-1979	French	Poland Romania	1927 1928	Currency reform Currency reform	Monnet (1978) Monnet (1978)
Sir Otto E. Niemeyer	1883-1971	British	Bulgaria Australia New Zealand Egypt Greece Argentina India China	1927 1930 1930 1932 1933 1936 1936-38 1941	Ctl. bank reform Ctl. bank reform Central bank DDP Central bank Central bank DDP DDP	Flandreau (2005) Schedvin (1970) Wright (2006) Mazower (1991) de Paiva Abreu (2011) Caldentey (2020) Niemeyer (1936) de Paiva Abreu (2011)
Frederick J. J. Powell	1880?-?	British	El Salvador	1934	Central bank	Sato (2012)
Raúl Prebisch	1901-1986	Argentine	Argentina Paraguay Guatemala Cuba	1935 1943-44 1945 1945-47	Central bank Ctl. bank reform Ctl. bank reform Ctl. bank reform	Caldentey (2020) Caldentey (2020) Dosman (2014) Dosman (2014)

			Dom. Rep. Venezuela	1946 1948	Central bank Central bank	Caldentey (2020) Dosman (2014)
Pierre Quesnay	1895-1937	French	France Romania Austria	1926-28 1927-28 1931	Currency reform Currency reform DDP	Dal-Pont & Torre (2011) Chiappini et al. (2016) League of Nations 1945
Charles Rist	1874-1955	French	France Romania Austria	1926 1927-28 1931	Currency reform Currency reform DDP	Dal-Pont/Torre (2011) Chiappini et al. (2016) League of Nations 1945
Charles Rivett-Carnac	1853-1935	British	Thailand	1899-1904	Currency reform	Brown (1978)
Jacques Rueff	1896-1978	French	Greece Portugal Bulgaria France	1927 1927 1930s 1958	Currency reform Currency reform Gold standard Currency reform	Chivvis (2010) Chivvis (2010) Bojinov (2015) Chivvis (2010)
Jeffrey D. Sachs	1954-	American	Bolivia Poland Slovenia Estonia Russia	1985 1989 1991 1992 1991-93	Currency reform Curr. reform, DDP Currency reform Currency reform Ctl. bank, DDP	Sachs (1987) Sachs (1993) Sachs (1992) Sachs (1992) Sachs (1997)
Hjalmar Schacht (3)	1877-1970	German	Germany Syria Indonesia	1923 1952 1953	Currency reform Central bank DDP	Schacht (1955) Schacht (1955) Schacht (1955)
Kurt Schuler	1960-	American	Estonia Lithuania Bulgaria Bosnia Ecuador	1990-94 1994 1997 1997 1999-2000	Currency board Currency board Currency board Currency board Dollarization	Hanke (2022) Hanke (2022) Hanke (2022) Hanke (2022) Santos (2015)
Goto Shinpei	1857-1929	Japanese	Taiwan	1897, 1903	Gold std., ctl. bank	Schiltz (2012)
Harry A. Siepmann	1899-1963	British	Hungary	1924-26	Currency reform	League of Nations 1945
Jeremiah Smith, Jr.	1870-1935	American	Hungary	1919-24	Currency reform	League of Nations 1945
Dominick Spring-Rice	1891-1940	British	Russia	1918	Currency board	Hanke/Schuler (1991)
Henry Strakosch	1871-1943	Austrian- British	South Africa	1920	Central bank	Bordiss/Padyachee (2011)
Megata Tanetaro	1853-1926	Japanese	Korea	1904-11	Gold standard, central bank, DDP	Schiltz (2012)
Nango Tatsune	1901-19??	Japanese	Manchuria	1932, 1935	Currency reform, central bank, DDP	Schiltz (2012)
Robert Triffin	1911-1993	Belgian- American	Cuba Honduras Paraguay Ecuador Guatemala Dom. Rep.	1941-47 1943 1943 1945 1945 1945-46	Ctl. bank reform Central bank Central bank Central bank Ctl. bank reform Central bank	Maes (2021) Caldentey (2020) Triffin (1946) Caldentey (2020) Caldentey (2020) Maes (2021)
Gerard Vissering	1865-1937	Dutch	South Africa	1925	Gold standard	Richards (1925)
Henry C. Wallich	1914-1988	German- American	Honduras Dom. Rep. Cuba El Salvador	1943 1946 1941-47 1945, 1948-49	Central bank Central bank Central bank DDP	Caldentey (2020) Maes (2021) Wallich (1950) Wallich (1951)
Harry Dexter White	1892-1948	American	Cuba World	1941-42 1944	Central bank IMF, World Bank	Fed (1942) Horsefield (1960)

Walter J. F. Williamson	1867-1954	British	Thailand Estonia	1900-25 1926-27	Gold standard Central bank	Brown (1978) League of Nations 1945
Henry Parker Willis	1874-1937	American	USA Ireland	1913 1926-27	Central bank Currency board	Willis (1923) Moynihan (1975)
Arthur N. Young	1890-1984	American	Honduras Saudi Arabia	1922-28 1950-52	Gold standard Central bank	J.P. Young (1925) A.N. Young (1983)

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Notes: *Not implemented. (1) Some persons listed above do not fit the strict definition of being money doctors but are listed for reasons the text explains. (2) "Years of reform" are when reforms were proposed, not necessarily when they were implemented. (3) Schacht was also involved in Brazil, Ethiopia, Iran, Egypt, and Libya, but we have not found details about those episodes and to what extent Schacht's recommendations were followed.

Key to type of reform:

Currency reform: stabilizing the currency without changing the monetary authority.
Gold standard: establishing a gold or gold exchange standard.
Central bank or central bank reform: establishing or significantly changing a central bank.
DDP: domestic development projects and policies.
Currency board: establishing a currency board.
Dollarization: making the U.S. dollar or another foreign currency the official national currency.

2. Money Doctors Before World War I

The first money doctor was apparently Jean Gustave Courcelle-Seneuil, a Frenchman who was contracted by the Chilean government to teach economics at the University of Chile in 1853. Courcelle-Seneuil proposed a free banking law in Chile in 1860 after recognizing the country's need for a safe means of payment (there was general distrust in the government at the time). The law allowed any solvent bank to issue notes under two conditions: notes could not exceed 150 percent of capital, and banks could not issue notes for less than 20 pesos. The legislation fixed no minimum capital requirement, no limitation on the nature or maturity of loans, no reserve requirement against either deposits or notes, and no provisions of any kind for supervision or inspection by the government (Briones 2002). The free banking system lasted until 1898, when the government treasury monopolized note issue. That system was itself reformed by a later money doctor, Edwin Kemmerer, whom we discuss below.

After Courcelle-Seneuil, there was then a long interval until Charles Conant, an American economist and journalist, arrived on the scene at the turn of the century. Conant played a dominant role in introducing the gold exchange standard in the Philippines, which had become an American colony after the Spanish-American War of 1898. Under Spanish rule, the Philippines had been on a silver standard, like much of East Asia then.

In 1901, Conant was sent to the Philippines on a commission organized by the U.S. Secretary of War to investigate coinage and banking. Conant proposed the adoption of the gold standard, more precisely the gold exchange standard, in *A Special Report on Coinage and Banking in the Philippine Islands*. His proposal included: "a distinct Philippine silver coin, which should be legal tender for 50 cents in U.S. money; the silver coin to be named 'peso' and to contain 25 grams of silver of the fineness of 0.835 and be divisible into 100 equal parts called 'centavos'; the coin to be issued by the Philippine government in quantities determined by the government; the coin to be maintained at par with gold by the limitation of the amount coined and by a gold reserve; other coins currently used to cease to be legal tender after a certain date; new coinage to be executed as far as possible at the mint at Manila, and for the coinage to only be of valid use in the Philippine Islands" (Conant 1901). Jeremiah Jenks, a professor of economics at Cornell University, was sent by the U.S. government to visit other Asian countries to report on their monetary conditions and how they might affect trade with the Philippines. Jenks also visited the Philippines. His tasking gave him no official role in advising on the Philippine monetary reform, but he supported Conant's ideas (letter from Jenks to William Cary Sanger, July 10, 1902, Theodore Roosevelt Center digital archive).

After Conant submitted the proposal, the U.S. government enacted the Philippine Coinage Act in February 1903, and the Philippine government enacted the Gold Standard Act, the complementary piece of local legislation, in October 1903. The Philippine Coinage Act introduced a gold standard with a theoretical gold peso, consisting of 12.9 grains of gold at 0.900 fine, as the unit of value (Wolters 2003). This unit was equivalent to half of a U.S. dollar. For actual circulation, the theoretical gold peso would be represented by a silver peso, containing 416 grains of silver at 0.900 fine.

The Philippine Gold Standard Act established the administrative machinery for the currency reform. The currency was backed not by a supply of gold in the Philippine treasury, but by a reserve fund, held mainly in New York banks, called the Gold Standard Fund, which functioned to maintain the gold value of the currency in transactions abroad (Wolters 2003). Domestically, the government issued paper money, called silver certificates, against which silver pesos of equal value would be held in reserves. The Philippines abandoned the gold standard along with the United States in 1933 and the system then became a dollar exchange system (Freedman 2018); however, the overall monetary system, a kind of currency board, remained until the establishment of the Central Bank of the Philippines in 1949.

President Theodore Roosevelt appointed Conant, Jeremiah Jenks, and Hugh Henry Hanna as members of the U.S. Commission on International Exchange, intended to promote the international gold standard by persuading countries still on the silver standard to switch to gold. Conant and Jenks traveled to Mexico in 1903, and in meetings there they helped Mexican officials fill in details about how to conduct a transition to the gold standard, which Mexico's minister of finance had already favored before the Americans visited (Passananti 2008).

The commission, especially Conant, was also involved in Panama's monetary reform of 1904 (see Conant 1904). The U.S. government assisted Panama, previously a province of Colombia, in breaking away and becoming independent because it thought doing so would make it easier for the United States to build the Panama Canal on favorable terms. Newly independent Panama used U.S. paper money but retained a national coinage. The Panamanian balboa was defined in terms of gold, but the coins in circulation were silver. A conversion fund at an American bank equal to at least 50 percent of the silver coins in circulation guaranteed the exchangeability of the silver coins into gold (Panama, Law 84, 28 June 1904). Panama therefore had a gold exchange standard for coins.

Conant was the treasurer of the Morton Trust, which held funds for the governments of the Philippines, Panama, and the Dominican Republic after they made their currency reforms (Rosenberg 1985: 200 n. 72). In 1911-12 he and another expert, F. C. Harrison, advised the Nicaraguan government on rehabilitating its currency after a revolution and profligate spending. The government adopted the gold standard and established the Banco Nacional de Nicaragua as they advised (Young 1925: 145-168).

In the early years of the 20th century, the Dominican Republic had a large debt to European creditors. To prevent the governments of the countries of the creditors from exercising gunboat diplomacy, the U.S. Department of State hired Jacob Hollander, a professor at Johns Hopkins University, to advise the Dominican government on how to improve the collection of customs duties, a major source of revenue. As part of the reform, the Dominican Republic also ceased issuing its national currency, the peso, and adopted the U.S. dollar in 1905. Hollander had also been involved with the monetary reform in Puerto Rico in 1899 that had substituted U.S. currency for Spanish Puerto Rican coins. Hollander does not seem in either case to have been the intellectual leader that Conant or Jenks were, however (Rosenberg 1985: 174, 192-193).

Finally, two British advisers to Thailand's ministry of finance in the closing years of the 1800s and in the early 1900s played important roles in establishing a government note issue and in Thailand's transition from a silver standard to a gold exchange standard. They were Charles James Rivett-Carnac and Walter James Franklin Williamson (Brown 1978). Williamson came from the Indian colonial civil service and apparently was familiar with its gold exchange arrangement, which also influenced Charles Conant.

3. Honorable Mention I: Japanese Money Doctors

Several Japanese experts consulted on questions of monetary reform in Japanese colonies. They were not money doctors in the strictest sense as defined at the start of this paper, but deserve mention because of their influence and because English-language writing largely neglected them until a book by Schiltz (2012) that is the basis for this section.

As with the United States and the Philippines, when Japan gained Taiwan as a colony after the Sino-Japanese War of 1894-95, Taiwan was on the silver standard. Goto Shinpei was the Head of the Department of Health in the Japanese ministry before being chosen by Kodama, the Governor-General of Taiwan, to move to Taiwan, where he served as the Head of Civilian Affairs. As Japan's first money doctor and a medical doctor by training himself, Shinpei treated Taiwan like a physician who studies the patient's clinical history before determining treatment, which can be demonstrated in his creation of the *Provisional Council for the Investigation of Old Habits of Taiwan*.

Shinpei took the lead in having Taiwan and its central bank—which Shinpei installed earlier—adopt the gold standard, which Japan itself had done in 1897. Before, Japan had performed a currency reform in Taiwan with the circulation of yen silver coins. However, under that system, the determination of the price of silver lagged the main market, causing arbitrage opportunities for investors and resulting in steep losses for the Bank of Taiwan. In September 1903, led by Shinpei, the Office of the Governor-General filed its proposal in a draft presented to the Minister of Finance with the following outline:

> **10.** Amend the Bank of Taiwan Act, allow the issue of gold notes, and call back the former silver notes for redemption. 2. Silver yen coins should not be redeemed by the Government but could be allowed for public payment to the Government at an official exchange rate, as in the case of the silver notes; apart from that, they may not furthermore be considered legal tender. 3. Silver yen coins and silver notes received by the Government will not be paid out again. 4. Prohibit the importation of silver coins for as long as necessary. 5. Depending on the circulation of gold coins, prohibit the use of silver yen coins and silver notes for public payments to the Government. 6. Thereafter have the acceptance of silver coins be dependent on mutual consent of the Taiwanese people, excluding official interference with regard to the determination of their value (Schiltz 2012).

In May 1904, the Japanese government allowed the Office of the Governor-General to draw up orders to issue gold notes. The government, however, did not amend the Bank of Taiwan Act and instead allowed the parallel circulation of both silver notes and gold notes. However, the introduction of the gold notes—coupled with the surge in the international price of silver—led the original outline to be a success. In 1906, the Japanese government acknowledged that Taiwan was in practice incorporated within Japan's gold standard system, and in 1909, the Bank of Taiwan successfully recalled all silver-backed notes in the system.

Megata Tanetaro was another money doctor hailing from Japan during this time. In Korea, he proposed reforms similar to Taiwan's. Japan subjected Korea to increasing influence after the Sino-Japanese War, making it a protectorate in 1904 and a colony in 1910. The first step in Tanetaro's reforms was to end the Korean financial turmoil by separating government and court finances. (Tanetaro thought that the monarchy drained resources from the country.) In addition, Tanetaro abolished the Korean Mint and set up an Independent Printing Office for notes.

Tanetaro then proposed that Korea adopt the gold standard. In 1904, Tanetaro suggested the enforcement of a modified version of the 1901 Currency Ordinance, which had stipulated the application of the gold standard in Korea. In response, "in mid-January 1905, the Supreme Administrative Council passed resolutions regarding the enforcement of the 1901 Currency Ordinance, a resolution on the circulation of foreign monies, and a draft of an Imperial Ordinance specifying readjustment procedures" (Schiltz 2012). Korea had quickly abandoned the 1901 ordinance after Japan had protested a provision in it banning Japanese silver coins. The 1905 ordinance made some changes acceptable to Japan.

The other Japanese money doctors of the early 20th century were Nishihara Kamezo and Nango Tatsune. In 1916, the mounting costs of civil war on China's largest banks had created an opportunity for Japan to lend to the Chinese government. During six missions to China, Kamezo negotiated several loans on behalf of the Japanese government to fulfill his mission of creating a "yen bloc" within Chinese territory.

He first signed a preliminary loan for ¥5 million in 1917. The contract stipulated that gold currency notes backed by Japanese gold notes were to be issued in China and that Japan was to appoint a financial adviser to oversee the Chinese banks' operations.

Following that, Kamezo negotiated a ¥20 million loan. He promised increasing Japanese assistance in administering Chinese custom duties, in exchange for "the abolition of export tariffs on cotton, wool, iron, and copper, and possibly two or three other commodities" (Schiltz 2012). In 1917, the Japanese government indicated its support for the loan, with three domestic banks signing a ¥20 million loan contract on September 29.

In the remaining visit, Kamezo signed loans with the Chinese government to help with a currency reform and other infrastructure projects in exchange for permission to issue Japanese gold notes and other privileges. The loans summed to a total amount of around ¥145 million.

However, once other foreign powers became aware of the magnitude and conditions of the Kamezo loans, they conspired to terminate the loans immediately. The Japanese government was pressured into writing them off completely, except for a token repayment of ¥5 million.[2]

Nango Tatsune joined the Japanese-controlled South Manchurian Railway Company in 1922 at 21; he then worked for the research bureau of the director's office. In 1931, Japanese forces invaded and conquered Manchuria. The next year, Tatsune moved to the railway's Bureau for Economic Research, where he eventually led Subdivision 4, the Finance Subdivision. He played a significant role in formulating the future of Manchurian finance. In 1934, the U.S. silver purchase program caused deflation in China, which was still on a silver standard. The turmoil made it hard to keep a stable exchange rate between the Manchurian currency and Bank of Chosun (Korea's central bank under Japanese management) gold notes. In September 1935 the authorities agreed to couple the Manchurian yuan to the yen, as Tatsune and his colleagues proposed. "On November 30, the Manchurian government promulgated the 'Ordinance Regarding the Management of Foreign Exchange' together with the 'Items of the Directive Based upon the Law Regarding the Management of Foreign Exchange' and the 'Procedures with Respect to the Law Regarding the Management of Foreign Exchange.' These orders prohibited the speculative buying and selling of kokuhei (basically, IOUs serving as Manchurian currency notes), stipulated the protection of the country's gold and silver holdings, and fixed the rules of the kokuhei's circulation and diffusion. At the same time, the Government prepared a large fiscal stimulus package for Manchurian economic recovery." (Schiltz 2012). These actions also marked the completion of extending the yen bloc to Manchuria.

Goto Shinpei found success establishing a central bank in Taiwan (1897). Implementing the bank had a been a long-term goal of Shinpei's ever since Matukaya Masayoshi, the Japanese Head of State for Finance and Shinpei's long-time idol, had failed to do so earlier. Shinpei composed one letter to Japan's Ministry of Finance and another one to the Vice-Minister of the Home Ministry, both stressing the significance of a central bank and its potential to gain influence for Japan in Asia. In June 1897, his proposal was accepted and the Bank of Taiwan (BOT) was opened in Taipei, with provisions ranging from setting the capital of the bank at ¥5 million, to allowing bill discounting, to lending against secure real estate or movables, and even to purchasing and selling gold or silver. The BOT acted as a representative of the commercial banks and could issue notes of five yen or more; the bank was also obliged to hold an equivalent amount of gold and silver coins as reserves, as per the gold exchange standard.

There was also Megata Tanetaro, who established the central bank of Korea from 1904-1911. Under Tanetaro's contract, "the Finance Ministry deposited ¥3 million with the bank as a currency readjustment fund; at the same time, the First Bank lent the same amount directly to the government (secured against custom receipts) at an interest rate of 6 percent; the government then deposited this money in the national treasury (the Japanese First Bank) as a

[2] Later, the Kamezo loans became widely regarded as a symbol of the perversions of pre-war Japanese imperialism. The losses that the Kamezo loans brought to Japan on both financial and diplomatic grounds are the main reason why they remain "notorious" today.

reserve fund for currency redemption" (Schiltz 2012). Meanwhile, the Japanese government also promulgated Ordinance 73, which appointed Japan's privately owned First Bank to function as Korea's central bank—its notes were to circulate as the country's legal tender. The first bank was named the Bank of Chosun in 1911. Both Shinpei and Tanetaro's reforms with regards to central banks remain today.

Finally, Nango Tatsune was active in Manchuria in 1932. In addition to his yuan-yen coupling scheme, Tatsune reformed the Central Bank of Manchou in 1932. Even though his vision of a silver-bullion standard was rejected, the bank adopted a silver standard-controlled currency. "In the charter of the Central Bank of Manchou, all references to the issue of convertibility were omitted. Instead, the bank was simply requested to hold, as reserve, a sum equivalent to 30 percent or more of the total amount of notes issued, either in silver or gold bullion or as foreign currencies and deposits with foreign banks in silver or gold accounts" (Schiltz 2012). During this time, Tatsune also readjusted old Manchurian bank notes to fit the new central bank's model and developed an Industrial Bank in 1935 to support the central bank's operations. The reforms were highly successful, but the banks withered away in the fray of World War II.

4. The Interwar Years: Edwin Kemmerer and his "First Wave" Contemporaries

World War I disrupted the international gold standard and resulted in the creation of a number of new independent nations in Europe and the Middle East. Money doctors attempted to address problems arising from the new conditions. Many of them understood that there was "structural disequilibrium" in the less developed economies, and attempted to alleviate it. Structural disequilibrium was characterized by an economy engaging in "fiscal profligacy," whether that involved excessive fiat money creation or compulsory advances made by central banks, often leading to inflations or imbalances in the domestic balance of payments. The ramifications of structural disequilibrium, in the money doctors' minds, were often paired with an understanding that capital flows became maladjusted much faster than trade flows, as well as the idea that as foreign exchange markets developed, expectations became more important than anything else. The specific circumstances surrounding a struggling economy's position also played a part in devising reforms.

As a solution to the structural disequilibrium problem, the money doctors stuck to a playbook of reforms that they considered "foolproof'' in the less developed economies—in other words, which promised "ultimate macroeconomic stability" by managing the flow of financial information. The playbook began with assessing the fiscal performance of the less developed economies. This involved examining credibility and distinguishing between illiquidity and insolvency. The playbook then included re-establishing less developed economies' access to capital markets, implementing a package of fiscal stabilization, and limiting the creation of high-powered money. Finally, the playbook tried to dampen the possibility of financial crises.

Edwin Walter Kemmerer was the most prominent money doctor of the interwar years. Kemmerer had written his Ph.D. thesis at Cornell University, supervised by Jeremiah Jenks, and had helped Charles Conant in drafting the Philippine Gold Standard Act of 1903. He served as the first chief of the Currency Division of the Philippine Treasury. After that, he returned to Cornell, now as an assistant professor. In 1912, he moved to Princeton University. Kemmerer became known for his financial “missions,” which usually involved a team of experts, including specialists on taxation, government budgets, banking, trade, debt, and sometimes agriculture or industry as well as on money.

In 1917, Kemmerer was invited to Mexico to address its monetary and banking problems. For centuries, Mexico had been under a bimetallist regime, which became unsustainable in the international context predominated by the gold standard. Kemmerer proposed two plans: the appreciation of the peso or the reduction of the silver content of coins. Considering the risk brought by the first proposal for prices, wages, and debts, Kemmerer suggested the second plan of decreasing the quantity of silver contained in each coin while keeping its unit of value unchanged. Consequently, the metallic value of the coins would become lower than their face value, eliminating the possibility of coin hoarding. Kemmerer’s proposal was largely not adopted, as happened in a few other cases during his career (Nodari 2019). Upon completing his recommendations, Kemmerer returned to the United States and was hired by the Federal Reserve Bank of New York to establish a statistics department.

Kemmerer’s next attempted currency reform was in Guatemala in 1919. In his report on Guatemalan finance, Kemmerer traced the country’s economic ills to its inflation-ridden paper currency, which created opportunities for graft and self-interested manipulation. He predictably recommended the creation of a strong national bank and the introduction of a gold exchange currency reform. U.S. State Department officials subsequently tried to devise a controlled loan/fiscal rehabilitation package, but the Guatemalan government balked at foreign supervision. In 1924 Kemmerer returned for a second try, and the reforms he proposed, an echo of the earlier ones, were largely implemented (Kemmerer and Dalgaard 1983).

In 1923, Kemmerer began his first of a string of central bank proposals that actually were implemented. Colombia (1923), Chile (1925), Ecuador (1927), Bolivia (1928), and Peru (1931) all established or reformed their central banks to operating on the gold exchange standard and made complementary reforms in other areas of their economies. South Africa (1925) returned to the gold standard as Kemmerer and a Dutch colleague, Gerhard Vissering, had proposed only months earlier. Kemmerer was also involved as a U.S. expert on the Dawes Commission, which looked for a solution to Germany’s high and unpayable World War I reparations debt burden. And he proposed monetary reforms in Poland, which partly followed his recommendations, and in some other countries that did not, including China (1929) and Turkey (1934).

In each country, Kemmerer’s reforms were a bit different; however, they had the same motives. On the one hand, Kemmerer created central banks in these countries in order to foster outward U.S. economic and commercial expansion and grow the American reputation as an international creditor. This turned out to come true; between 1913 and 1929, U.S. investments in South America increased from U.S. $72 million to more than U.S. $900 million.

Kemmerer also created central banks in these countries in order to control public finances. He ordered the central banks to conduct fiscal measures alongside their currency and banking reforms, including overseeing discretionary spending, tax and tariff policies, the implementation of income and property taxes, and the building of railroads. Not coincidentally, this helped the U.S. strengthen its own economic interests as well; for example, during the formation of Colombia's central bank, a tax on the export of bananas generated profits for the United Fruit Company, which had monopoly power over the Colombian banana trade.

On the other hand, Kemmerer sought to maintain monetary and financial stability—through the adherence to the gold or gold exchange standard—for the countries that implemented the central banks. The rules of each central bank involved maintaining the exclusive right of note issue, centralizing the gold reserve, overseeing stability in the payment systems, and providing limited finance to the government. Kemmerer had previously proposed a Pan-American monetary unit tied to the dollar and remained committed to gold convertibility—he was certain it would work in the case of each of these countries' central banks.

Finally, Kemmerer's reforms aimed to increase foreign lending to these countries, and were successful in doing so. In Colombia, foreign investment was U.S. $60 million in 1914; by 1928, it had increased to $236 million. In Chile between 1927 and 1928, foreign loans increased from U.S. $228 million to $513 million.

Kemmerer was successful in making institutional changes, but in other ways, the results of his reforms were mixed. In Chile from 1925-1930, for example, no GDP, mineral production, or industrial production growth was recorded except for 1928 and part of 1929. Moreover, public debt expanded despite Kemmerer's efforts to promote fiscal rectitude. By the Great Depression, many countries defaulted on their debt and the Kemmerer approach, based on the gold standard, was tarnished. The only reforms that stood the test of time were the five central banks he created, as well as the miscellaneous central bank-related reforms he made, such as the Chilean gold standard (1925) and the Peruvian reserve coefficient (1931).

Arthur N. Young, a former student and close friend of Kemmerer, worked in the U.S. State Department's Office of the Foreign Trade Advisor when the department recommended his services to Honduras. Young stayed in Honduras for more than a year and fashioned a comprehensive rehabilitation plan that so impressed the State Department it offered him a promotion to economic adviser in the department. He held that position from 1922 to 1928, until he began a lengthy stay as an economic adviser to the government of China. Strongly influenced by Kemmerer's views and work, Young offered ambitious recommendations for Honduras that went beyond those his mentor had made for Guatemala. Young's hundred-page memorandum on the "State of Financial Reforms in Honduras" called for U.S.-sponsored financial reform as a bulwark against political instability and British intervention. It analyzed the deplorable state of the finances of Honduras (in default to British creditors since 1873 and beset by chronic budget deficits), and, like Kemmerer's plan, it proposed monetary and banking reform to bring Honduras onto a stable gold standard. Young then went on to scrutinize public expenditures, calling for reduced outlays and new procedures to eliminate corruption; he studied sources of revenue and suggested specific tax reforms; he examined financial administration, particularly the need to reform customshouses; and he recommended the consolidation of the internal and foreign debt. In short, he sketched a comprehensive fiscal transformation similar to the one that U.S. officials had been trying to effect in their territories of Puerto Rico and the Philippines. The key to Young's program, as to Kemmerer's, was the extension of a loan by U.S. bankers. The loan would consolidate debt, finance currency reform, and help instill discipline in expenditures and administrative practices. Yet, bankers were interested in lending only if some loan control would minimize their risk. Thus, in early 1922, Young, now back in Washington as economic adviser to the State Department, proposed granting Honduras a loan on the model of one that the department was supporting for the government of El Salvador (J. P. Young 1925: 118).

Henry Parker Willis was a Columbia University professor with experience as a banker, financial journalist, and Federal Reserve official. He had also been one of the drafters of the Federal Reserve Act. Several years after Ireland became independent from Britain, the Irish government requested his advice about establishing a distinct Irish currency. The result of Willis's advice was the creation of the Saorstát (Irish Free State) pound in 1927, and the replacement of the old system of note issue by banks by the Irish Currency Commission, a currency board. The Saorstát pound was backed by and fixed to the pound sterling (Moynihan 1975).

A small circle of French economists also acted as money doctors in the interwar period. They were connected to one another through service at the French ministry of finance or the Bank of France.

Jacques Rueff worked for the French minister of finance Raymond Poincaré leading up to the initial stabilization of the French franc in 1926. He then was assigned by the League of Nations to perform missions in Greece, Bulgaria, and Portugal. Under Rueff's 1927 proposal, Bulgaria adopted a full gold exchange standard—among other conditions—in December 1928, and the lev became convertible into gold at a fixed rate. Later, Rueff was the driving force behind France's highly successful 1958 stabilization of the franc. Rueff was a monetarist, unlike most of his French peers. He believed that persistent monetary financing of government budget deficits would lead to inflation, currency devaluation, and later deflation. He posited that monetarism and gold standards were the only way to keep economies from turning into "economies of sand"; he even contended that if other countries had not gone off gold, France would never have experienced a depression (Chivvis 2010).

Charles Rist, a professor at the Sorbonne and deputy governor of the Bank of France, played a key role in the stabilization of the French franc from 1926-28. He also participated in reforms in Romania (1927-28) and Austria (1931). In France, Rist argued that deflation to return closer to the prewar exchange rate would not work. Instead, he urged direct action: balance the budget to end the capital flight and exchange depreciation, which would improve the exchange rate, lower domestic interest rates, foster economic expansion, and facilitate the repayment of bank advances. Rist also recommended a prompt stabilization against gold at the current rate with the assistance of international credits (Dal-Pont and Torre 2011).

Pierre Quesnay, a student of Rist who had worked for the League of Nations Reparations Commission from 1920-22, became the chief of staff to the governor of the Bank of France and later an adviser to the bank. He drew up a preliminary plan for France's stabilization, which he and Rist discussed in detail. The de facto stabilization proved an immediate success, accomplished without foreign credits. It enabled the Bank of France to reclaim its position as a leading central bank. The franc stabilized de facto in December 1926, and in January 1928, France lifted the postwar restrictions on the export of capital, promoting currency stabilizations elsewhere in Europe. Romania was the first case.

Romania initially sought international loans but was told that monetary stabilization would be a prior condition. Quesnay was called in to provide independent approval of Romanian stabilization measures and the control exercised by the central bank. Rist had the ambition to use his mission in Romania to promote central bank cooperation. Stabilization was accomplished accounting to the French plan on February 7, 1929. Thirteen central bankers contributed a credit of $25 million, and private bankers arranged a thirty-year loan of $101 million to the Romanian government. The stabilization kept the currency stable with adequate reserves until 1929, when the worldwide economic slump of the time sharply curtailed Romanian economic development. Jean Monnet, later prominent as one of the founders of what became the European Union, was also involved with the stabilization effort (Monnet 1978, Chiappini et al. 2016).

The monetary reforms of the 1920s had as a backdrop the partnership of Benjamin Strong, governor of the Federal Reserve Bank of New York, and Montagu Norman, governor of the Bank of England.[3] They supported many of the proposals of money doctors by letting New York and London bankers know that they looked favorably on proposed stabilization loans that were crucial to the success of many of the reform packages. That is not to say that they always agreed with each other or with reforming countries. Belgium and France stabilized their exchange rates below purchasing power parity and Italy stabilized at an unsustainably high rate. Poland and Romania stabilized without following Norman's advice. For much of the 1920s, Strong advocated for easy money policies—namely lower discount rates—to "aid his European allies." However, in 1929, the year after Strong's death, the Fed imposed restrictive measures to curb U.S. stock market speculation, even if it put additional pressure on the pound sterling. Norman, although externally amicable to Strong, was jealous of the United States' financial pre-eminence; as a result, he wanted to restore the pound sterling to its prewar importance and to implement his sterling exchange standards wherever he got the chance. (Britain returned to the gold standard in 1925, so from then on sterling exchange standards were gold exchange standards.)

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[3] In that era, before the Federal Reserve Board (now the Board of Governors) had its present form, the governor (now called the president) of the Federal Reserve Bank of New York was the de facto leader in international economic relations for the Federal Reserve System, and Strong was the intellectual leader of the Federal Reserve Board.

5. Honorable Mention II: The League of Nations

The League of Nations does not strictly fit our definition of money doctors as being outsiders, because it sponsored loans to member countries, but it is worth mentioning here because of the precedent it established for the far more extensive and systematic post-World War II monetary advising of the International Monetary Fund (IMF). Whereas the League only served as a coordinator for lenders, the IMF lends its own money to member countries.

In September 1920, the League of Nations Financial Committee began working with countries to spur post-war monetary reform. The League Financial Committee sponsored rehabilitation programs in Austria, Hungary, Greece, Bulgaria, Estonia, and Danzig (League of Nations 1945). Joseph Avenol, previously a French finance official, became the leader of League of Nations advisory missions to most of those countries and to China in the 1920s. While in those countries, especially Austria and China, Avenol advocated for economic and financial "orthodoxies"—i.e., balancing budgets, preventing further deficits, and ending index-linked government salaries—to secure international loans, build independent central banks tied to the gold standard (thereby ridding governmental control of money supplies), restore domestic currencies and confidence, and restructure international finances (Warnock 2015, Goto-Shibata 2017).[4] In 1933, Avenol became Secretary-General of the League of Nations, where he had a controversial tenure lasting until 1940.

In Austria, after the government pledged customs revenues to pay its debt and granted foreign supervision of its central bank, the League got the Bank of England to discount Austrian Treasury bills in March 1923. Some months later, the Bank of England floated a long-term loan to Austria for domestic development. In Hungary, the League got the Bank of England to do much the same, as long as the Hungarians undertook domestic reform, raised matching funds internally, accepted an American Commissioner-General, Jeremiah Smith, Jr., and created an autonomous central bank initially advised by an Englishman, Harry Arthur Siepmann.

Using the Austrian and Hungarian experiences as templates, the Bank of England floated similar small syndicated loans to resettle Greek and Bulgarian war refugees and to complete currency reforms in Estonia and Danzig (now Gdansk). Additionally, in Bulgaria, Jaques Rueff's proposals rang prominent (see **Section** 4). After finishing many years as a financial adviser to the Thai government, Sir Walter Williamson, as he now was, advised the Estonian government under the auspices of the League on converting the Bank of Estonia into a pure central bank. The Danzig reform had the distinction of being a proposal of entirely local origin.[5]

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[4] Avenol's colleagues and contemporaries included Sir Drummond Fraser, Sir Otto Niemeyer, Sir Basil Blackett, Sir Henry Strakosch, Vilém Pospíšil, Emil Glückstadt, Ludwik Rajchman, Jaques Rueff, Arthur Salter, Mori Kengo, and Sugimura Yotaro. However, most of them have not been included in the table above.

[5] From 1923-24, the League sent J. D. Hunger as a financial adviser to the Albanian government (League of Nations 1945: 162). Hunger was a Dutchman who had been the governor of Batavia in the Netherlands East Indies (now Indonesia). It is unclear what role, if any, he had in the establishment of the Bank of Albania in 1925; we found no details about his activities.

Due to the Great Depression, most of the loans the League had coordinated defaulted, and the League's reforms generally sputtered.

6. "Second Wave," Often Public Sector, Interwar Doctors

As the Great Depression began, the reforms of almost all money doctors since the end of World War I fell apart. A second interwar wave of money doctors then arose. Their prescriptions still favored central banks, but without the gold standard, or at least with it in much modified form, including expanded discretionary powers in areas such as rediscounting, exchange controls, and open market operations. These money doctors were themselves mainly connected with central banks.

Sir Otto Niemeyer was a British Treasury official who became an adviser to Bank of England governor Montagu Norman in 1927. His ideas originally followed the orthodoxy of the 1920s but then changed with the Great Depression. In 1930, he controversially told Australians that their federal and state governments would need to do extensive belt tightening (Schedvin 1970). He also proposed reforming the Commonwealth Bank of Australia, a combined commercial and central bank. In New Zealand later that year, he proposed a central bank to replace free banking, which New Zealand later did. A proposal for central bank reform in Brazil, which he made in 1931, was not successful (de Paiva Abreu and Carvalho Loureiro de Souza 2011).

Niemeyer was also involved with the establishment of the Banco Central de la República Argentina (BCRA). Niemeyer influenced the setting of the bank's goals and the appointment of its general manager. The bank's main purpose was to take on the roles of the former Caja de Conversión (sometime currency board), the Treasury, and the Office for Exchange Control to ensure money supply growth stability and the safe management of foreign assets.[6] As enacted, the BCRA reflected Niemeyer's ideas as modified by the Argentine economist Raúl Prebisch. Finally, Niemeyer had similar but limited success in reforms in Egypt (1932), India (1936-38), and China (1941), which mainly focused around securing domestic development loans and restructuring public taxation and revenue systems.

Frederick J. J. Powell, also an official of the Bank of England, visited El Salvador in 1934 to advise on creating a central bank to replace the free banking system. The government followed his advice and the reform was considered quite successful (Sato 2012).

[6] More concretely, the bank's main goals were to (1) maintain the concentration of enough reserves to moderate the consequences in the fluctuations of exports and foreign investment on the domestic currency, credit, and commercial activity, in order to maintain the stability in the value of the currency; (2) regulate the supply of credit and the means of payment adapting these to the level of transactions in real terms; (3) maintain an adequate level of liquidity and satisfactory functioning of bank credit operations, and supervise the banking system; and (4) act as the financial agent to the government and as its advisor in domestic or foreign credit operations and in the issuance and monitoring of public debt.

Sir Frederick Leith-Ross, chief economic adviser to the British government, went to China for an extended period in 1935-36 when China was moving off the silver standard to what we now might define as an exchange rate basket. He offered advice and some British assistance (Leith-Ross 1968).

Hermann Max was a rare money doctor not from the richest of countries. Although German-born, he became a Chilean citizen, professor at the University of Chile, and instructor at an institute of banking studies sponsored by Chile's central bank. He visited Venezuela in 1939 to consult about replacing its free banking system with central banking, which occurred in 1941. The next year, he visited Nicaragua to consult about reforming the central bank there (Colmenares 2009).

7. World War II and the Bretton Woods Era

John Maynard Keynes' first published book, *Indian Currency and Finance* (1913), discussed extensively India's quasi currency board system of the time. In 1918, when he was a British Treasury official for international finance, Keynes proposed a somewhat similar system for North Russia. North Russia was the region around Archangel and Murmansk, controlled at the time by an anti-Bolshevik government that Britain, France, and the United States supported. Dominick Spring-Rice, a British War Office official sent to North Russia to assist with financial matters, agreed with Keynes' proposal and worked to implement it. The National Emission Caisse, as the currency board was called, issued North Russian rubles in exchange for British pounds (via check) at a fixed rate of 40 rubles per pound or dollars and francs at their respective exchange rates against the British pound. In a departure from orthodox currency board practice, 75 percent of the ruble note issue was backed by pound sterling reserves, while the other 25 percent was invested in interest-earning North Russian government bonds. Seigniorage came from the deposits at the British banks as well as the interest earned on the provisional government bonds and could amount up to a further 10 percent of the note issue.

The National Emission Caisse opened in November 1918. It succeeded in issuing a convertible, stable currency, the only such one issued by any party to the Russian Civil War, but its life was brief. It closed in October 1919 shortly before the region was overrun by the Red Army, which put an end to anti-Bolshevik control of North Russia (Hanke and Schuler 1991).

Harry Dexter White led an American advisory mission to Cuba in 1941-42 along with Walter Gardner, a Federal Reserve official (Fed 1942). The mission proposed that Cuba establish a central bank, which it did some years later.[7]

[7] Specifics of the White and Gardner plan included de-dollarization, the development of a stabilization fund to control a new Cuban currency, and of course, the creation of a government-controlled central bank. This central bank would serve as a lender to the government and a lender of last resort, and it would conduct activist monetary policy focused on domestic needs. The team's ambitious goals sparked some controversy because they marked a stark difference from prior money doctoring missions. The missions of Edwin Kemmerer during the 1920s had been focused on limiting the power of newly created central banks, whose primary purpose was to maintain a constant currency tied to the gold exchange rate; on the other hand, the Cuba mission had given the central bank

During World War II, Keynes was the chief financial advisor to the British Treasury and White was the top official for international financial matters at the U.S. Treasury. They independently developed plans for a postwar international monetary organization. Upon learning that they were developing similar ideas, the British and U.S. Treasuries began trading proposals and negotiating. They brought other Allied nations into the negotiations in 1944, culminating in the financial conference at Bretton Woods, New Hampshire in July of that year, which established the International Monetary Fund (IMF) and the World Bank (Horsefield 1969). Those institutions, which opened in 1946, by the 1990s had nearly all independent countries as members. The Bretton Woods system of pegged exchange rates for IMF members broke down from 1971 to 1973, but the IMF endured, and in some ways later even increased in importance as an institution. The World Bank continues to be important as well. The Bretton Woods conference and its consequences surely count as the all-time greatest episode of money doctoring.

While White was working on international monetary reform, Robert Triffin, a Belgian-American economist at the Federal Reserve Board of Governors, became the leader in U.S. government efforts to advise individual countries on monetary reform. Like Otto Niemeyer after the 1920s, Triffin did not accept the money doctoring policies of that decade. He believed they had been "artificially transplanted and implemented to an entirely different environment from the great financial centers" (Triffin 1947), and were too dependent on external trade, the balance of payments position, and an assumption of undeveloped local financial markets. Triffin, along with his German-American colleague Henry Wallich, worked mainly in Honduras (1943), Paraguay (1943–44), Ecuador, Guatemala, and Cuba (1945–46), and the Dominican Republic (1946), implementing the use of the reserve accumulation, capital regulation measures, the establishment of foreign exchange controls, an active policy of rediscount and advances, and medium and long-term central bank lending to productive sectors to dampen external business cycle shocks. The belief was that countercyclical monetary policies—as well as an emphasis on the trade balance—would provide domestic economic support in the forms of industrialization and full employment.[8]

Triffin's efforts were particularly influential in Paraguay, where the central bank was reformed according to his recommendations (Triffin 1946). Specifically, he recommended that the central bank lend more credit—by "more," he meant in excess of the international reserve balance—to spark domestic growth. By breaking the link between the Paraguayan monetary issue and their international reserves, Triffin essentially gave the Banco Central del Paraguay (BCP) complete control over the monetary policy, the exchange rate, the discount window, and credit

significantly more power. This upset American and Cuban bankers, including the U.S. ambassador to Cuba. Nevertheless, the Federal Reserve Board supported White and Gardner's plans, marking a shift in foreign financial assistance philosophy and paving the way for Robert Triffin's missions.

[8] U.S. President Franklin Delano Roosevelt's "Good Neighbor Policy'' (1934-50) certainly helped in this regard, enabling public investment and the formation of development banks in these Latin American economies.

operations. The BCP consequently lent out a lot of medium and long-term credit to the agriculture and property sectors.[9]

To insulate the Paraguayan economy from external shocks, Triffin recommended that the BCP stock up on international reserves, conduct foreign exchange sterilization operations, impose exchange controls, issue stabilization bonds, and create flexible reserve requirements for banks. Raúl Prebisch, the former general manager of Argentina's central bank who had been recently fired by Argentina's new military junta, helped out, drafting the exchange control legislation (Caldentey 2020). Triffin also helped Paraguay establish a new currency unit, the guaraní, in order to alleviate the confusion between the legitimacies of the theoretical gold peso and the actual paper peso.

Triffin, Prebisch, and Wallich experienced similar success in their other missions, although not as extensive as in Paraguay. In the Dominican Republic, for example, the trio gave ample credit creation power to the Banco Central de la República Dominicana (BCRD), as well as the use of capital and exchange controls, and helped facilitate transitions between national currencies. In Cuba, the group advised on how to demonetize the U.S. dollar, establish a new national currency, and found a new central bank, one that would use exchange controls to conduct a more activist monetary policy aimed at domestic needs. Prebisch's activities and renown as a money doctor contributed to him being offered in 1950 the position of executive secretary of the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). There, he became possibly the best-known economist in the region, originating dependency theory and structuralist ideas about economic development (Caldentey 2020). As for Wallich, he ended up becoming a member of the Federal Reserve Board of Governors from 1974 to 1986 and also served on President Eisenhower's Council of Economic Advisers.

Triffin thought his reforms to be "truly revolutionary." In his own words,

> My job was soon to take me to all twenty of the Latin American countries, and I was lucky enough to see my recommendations on monetary and banking reforms adopted with record speed, in the few which formally requested my advice in this respect (particularly, Paraguay, the Dominican Republic, Guatemala and Ecuador)…the reforms which I proposed were truly revolutionary at the time. They sought to put monetary and banking policy at the service of the overwhelming development objectives previously ignored in central bank legislations copied one from the other and trying merely to imitate a distant and largely inappropriate Bank of England of U.S. Federal Reserve Model. (Triffin 1981)

Wallich was not too far behind, publishing two main books—*Monetary Problems of an Export Economy: The Cuban Experience, 1914-1947;* and *Public Finance in a Developing Country: El Salvador—A Case Study*—which he thought best encapsulated his work as a money doctor.

[9] For the property sector, this was in the form of long-term mortgage loans.

Triffin and Wallich's Federal Reserve colleagues David L. Grove and John Exter became active as money doctors after World War II. Staunch supporters for central banks, both were involved in advising the recently independent Philippine government in its effort to replace the currency board-like system established under U.S. colonialism. The Philippines passed a central bank law in 1948 and the central bank opened in 1949. Grove and Exter contended that "the 100 per cent reserve system has tended to immobilize needlessly a part of the official international reserves of [the Philippines]" (Grove & Exter 1948). Exter made a similar argument in his *Report on the Establishment of a Central Bank for Ceylon* (1949) to the government of Ceylon (now Sri Lanka). The country replaced its currency board with a central bank in 1950, two years after becoming independent from Britain, and Exter became the first governor.

Arthur Bloomfield was a Canadian-born economist who received his Ph.D. from the University of Chicago in 1941. He then worked as a research economist at the Federal Reserve Bank of New York, where he became a senior economist in the Balance of Payments Division. Throughout the 1950s, Bloomfield completed several missions to South Korea and Indochina, where he met John Jensen. His most notable was his first mission to South Korea, in which he helped establish the nation's new central bank. It was designed to have all the necessary features of a modern central bank, operating as an independent institution. It was also meant to meet the short-term inflation problems that South Korea was facing as a result of aggression from the North, which prevented the bank from establishing clear long-term objectives. The recommendations proposed by the mission were also highly tailored to the economic and political context of the Korean peninsula. They followed Robert Triffin's approach of providing only loose constraints on the authorities being established. This differed from the approach of prior decades, such as that of Edwin Kemmerer, which involved establishing the more or less same gold standard-based policies in different countries (Alacevich and Asso 2009).

George Jackson Eder was the rare money doctor of the Bretton Woods era whose background was mainly in the private sector, though he had also worked for the U.S. federal government. In 1956, the U.S. International Cooperation Agency, the predecessor to today's U.S. Agency for International Development, hired Eder to devise a monetary reform in Bolivia, which was suffering from spiraling inflation. In a series of meetings with President Victor Paz, President-elect Hernán Siles, and key cabinet ministers, Eder argued effectively for the monetarist view of inflation. He also pushed for the immediate formation of a monetary stabilization council, endowed with emergency decree-making powers, to oversee government policy. Eder believed that concentrated executive power (and a marginalization of the legislature) was a "structural prerequisite" for successful stabilization. He assumed the post of executive director of the council and maneuvered to make sure that Prebisch-influenced structuralists were kept out.

Having laid a new intellectual and institutional foundation, Eder worked quickly to develop a comprehensive set of policy measures. His "Forty Points" discussion became the basis of the "Fifty-Step" stabilization plan that was subsequently enacted by the Siles government in December 1956. The plan prescribed a generous dose of economic orthodoxy that included:

1. A 40 percent reduction in government spending, coupled with tariff and tax increases aimed at balancing the budget.
2. An elimination of deficits in public sector enterprises.
3. Cuts in consumer subsidies and the elimination of price controls.
4. An initial cost-of-living wage hike to cushion price hikes, to be followed by a wage freeze; and
5. A unification of exchange rates.

Of note, an underlying element of Eder's plan was to rid Bolivia of its debt owed to the United States. Although several politicians, including Vice President Nuflo Chavez, publicly criticized the plan, President Siles ultimately decried that Eder had "saved the country" with his plan (Eder 1968, Hansell 1999).

The final American of the World War II and Bretton Woods era we will mention is George Blowers. After acquiring banking experience in the United States, he became the manager of the Bank of Liberia, a commercial bank that also performed some financial functions for the government. There, he oversaw Liberia's transition from using the West African pound (issued by the West African Currency Board of neighboring British colonies) to using the U.S. dollar as Liberia's official currency. At the request of the Ethiopian emperor Haile Sellassie, he served as governor of the State Bank of Ethiopia from 1942 to 1949 for lack of an experienced Ethiopian candidate. Blowers even attended the 1944 Bretton Woods conference on behalf of Ethiopia. In 1950-51, Blowers worked with a Canadian economist, Alexander McLeod, on their IMF-sponsored study of Libya's monetary system. At the time, shortly before its independence, each of Libya's three provinces was under a different occupation authority inherited from World War II, with a separate currency. Blowers and McLeod (1952) recommended a currency board as an interim institution to unify the currency and to provide a stepping stone to central banking. Their proposal was adopted. In 1952, Blowers became the governor of the Saudi Arabian Monetary Agency, that country's central bank. As had been the case in Ethiopia, there was at the time no experienced local candidate. During his time as governor, he reformed the currency and exchange rate systems.

Let us now turn to the non-American money doctors of the period.

John Barraclough de Loynes joined the Bank of England as a clerk in the Cashiers department in 1928. He later worked in the Central Banking department, until he ultimately joined the newly created Overseas and Foreign department in 1932. As part of his work in this department, de Loynes helped in the dissolution of the West African Currency Board in the 1950s and its replacement with individual central banks in Ghana (1957), Nigeria (1958), and Sierra Leone (1963). All of those countries were British colonies that were either nearing independence or had recently achieved it. In Ghana, de Loynes drafted two bills, the first being to legally establish the central bank and the second being to adapt and amend the recently established Ghana Commercial Bank. The first bill limited the Bank of Ghana's ability to expand the money supply as a preemptive measure to help with price stability.

In Nigeria, de Loynes played a more active role in the establishment of a central bank, the introduction of an independent Nigerian currency, and other associated measures. By the time de Loynes had been hired to work in Nigeria, there was already significant political pressure for him to advise in support for the creation of a central bank. The Nigerian colony had recently suffered from an indigenous banking crisis, where in 1954, 16 of their local banks had failed and public sentiment believed that the crisis would only continue without the backing of a central bank. Though in ultimate support of a central bank, Loynes expressed doubt about establishing one immediately, urging caution. However, political pressure prevailed, and in 1957, he was "obliged to recommend" a central bank, which was then implemented in 1958 (Uche 2000).

In Sierra Leone, de Loynes took a more conservative approach. Again, his thought was that a central bank "should be played long," and he instead recommended creating a "Monetary Institute" that would be like a central bank in some respects but that would not act as a lender of last resort. De Loynes envisioned that in due time, the "Monetary Institute" would metamorphose into a full-fledged central bank (Uche 2000). These statements occurred in 1959; by 1962, Sierra Leone government set out to establish a central bank.[10]

Later, de Loynes was chairman of The Gambia Currency Board from 1965 to 1970. In 1971, The Gambia replaced the currency board with a central bank, as the other former British West African colonies had done. In 1966, de Loynes was involved in giving technical advice to establish central banking in Mauritius (Bank of Mauritius 1968: 1). A few years before, he was also involved in creating the South Arabian Currency Authority in what is now southern Yemen, then the British colony of Aden. Because Aden was not yet clearly approaching independence, we have omitted it from the list of money doctoring episodes in the table above.

In Jamaica, the United Nations Technical Assistance Administration sent a former governor of the Bank of Canada, Graham Towers, to write a report on the financial institutions of Jamaica and their role in economic development. Towers expressed doubt that Jamaica needed a central bank but supported the idea of using government finances more aggressively to spur economic development. The next year, Thomas Balogh, a Hungarian-British economist who advised the British Labour Party, made a follow-up report. Balogh recommended establishing a National Development Bank that would eventually have all government deposits and make all government lending for economic development. Balogh expressly denied that Jamaica needed a note-issuing central bank (it had a currency board), but the National Development Bank would have had more powers of monetary management than some central banks of the time. An interdepartmental committee of the Jamaican government incorporated some of Balogh's ideas into the plan for the Bank of Jamaica, a central bank, which opened in 1961 (Hanke and Schuler 1995: 22-23). Jamaica became independent from Britain in 1962. Balogh was also involved with ideas for Jamaican development other than in the monetary sphere.

[10] Seeing the progress in their former colonies, the Bank of England tried to impose anti-central bank and pro-currency board sentiment in East and West Africa alike. The goal was for these countries to preserve whatever was left of global pound sterling dominance. France tried the same in the original CFA franc colonies, but in both cases, it was to no avail.

After the episodes we have reviewed, there was a gap in episodes of money doctoring. By the late 1950s, the IMF was well established. It undertook duties that money doctors had previously performed. Moreover, unlike money doctors, it had large resources of its own from which to make loans for economic stabilization, whereas the money doctors only had the ability to advise and persuade. To get some idea of the extent of the IMF's activities, it is sufficient to look on the section of its Web site that lists its lending commitments to all its member countries from the beginning. We do not discuss the IMF's efforts because it is a membership organization, so IMF staff are not "foreign" in the way that we have defined money doctors to be. Usually, though, IMF staff who work to help member countries with important monetary reforms are from other countries, to avoid conflicts of interest.

8. Honorable Mention III: The Chicago Boys

The "Chicago Boys" is the name for a group of Chileans who went to study economics in the United States, especially at the University of Chicago. There, they absorbed the free-market ideas of a number of professors in the university's department of economics and business school, especially Milton Friedman, Arnold Harberger, and Larry Sjaastad. Chile's economic crisis under President Salvador Allende led to a military coup to overthrow him in 1973. The military government lacked well-developed ideas of its own about how to address Chile's economic problems. The Chicago Boys came to occupy many important economic policymaking positions in the government. With their help, the economy climbed out of the crisis that had occurred under Allende. However, another severe crisis occurred in 1982 as part of a wider debt crisis in emerging markets. Recovery from this crisis took most of the rest of the decade.

Despite the 1982 crisis, Chile outperformed most other Latin American countries economically during the period of its military dictatorship (1973-90). Besides making reforms to the exchange rate system and the operations of the central bank, the Chicago Boys oversaw privatization of government-owned enterprises and significant changes to labor laws, the pension system, taxation, tariffs, and most other aspects of national economic policy. Because the Chicago Boys were themselves Chilean, they do not qualify as money doctors in the strictest sense. We mention them because the example of Chile was influential elsewhere in Latin America, and some other countries adopted aspects of Chile's reforms, sometimes advised by Chilean economists. Pension reform influenced by Chile's model even spread to some rich countries, a reversal of the usual sequence of the transmission of ideas in economic policy.

9. Since the End of the Bretton Woods System

As far as we know, the first authentic episode of money doctoring after the Bretton Woods system ended occurred in 1983 in Hong Kong. John Greenwood, an English economist at the Hong Kong office of the mutual fund company GT Management Asia, Ltd., devised a plan that the Hong Kong government adopted to end a currency crisis. The story is as follows:

Hong Kong abandoned its currency board system in 1972 and floated the Hong Kong dollar (HKD) in 1974. The resulting system was unusual, having neither an exchange rate nor a money supply anchor. For several years, it seemed to work acceptably, but problems then became apparent. The average ratio of money growth in Hong Kong to money growth in its five major trading partner countries from July 1973 to December 1980 jumped from 1.314 to 4.010 as the HHKD depreciated from $5.37 per USD to almost $6.00 per USD in 1981.[11]

Other problems that revealed themselves through Hong Kong's instability during this period were: (a) Following 1977, the HKD began to be viewed as trading independently of the USD.[12] (b) Hong Kong officials neglected that changes in the rate of growth of the broad money supply had direct effects in the debt, credit, and asset markets, on the price level, and on the currency. They handled their monetary policy through the targeting of interest rates and intervention in the foreign exchange market, and since they did not have a central bank, most of their actions seemed without direction. (c) Because of the unusual nature of Hong Kong's monetary arrangement of the time, intervention in the foreign exchange market did not have the desired effect in changing the money supply. (d) The government's response to problems such as a bank insolvency issue or a stock market boom and bust tended to be to increase regulation and supervision, not tackle the problem at its root source.

By early 1982, the United States was in the middle of a severe recession, which was having spillover effects to other economies including Hong Kong, for which the United States was a major trading partner. That summer, everything came crashing down as Hong Kong's systemic monetary problems collided with political turmoil. In the summer, British prime minister Margaret Thatcher visited Deng Xiaoping and other members of China's oligarchy to discuss the future of Hong Kong. (Hong Kong Island and the Kowloon peninsula had been granted to Britain in perpetuity, but the New Territories—most of Hong Kong—were subject to a lease expiring in 1997. Thatcher was looking to renew the lease.) The Chinese government refused Thatcher's offer, and a top Chinese official stated that China might just seize Hong Kong. Havoc broke out. The Hong Kong dollar crumbled from $5.86 per USD to $6.67 per USD, eventually tumbling to $9.55 per USD by Black Saturday, September 24, 1983. Inflation neared 20 percent, showing no signs of slowing or stopping, and after rumor broke out that the United Kingdom was going to force their custody over Hong Kong by means of war with China, people ransacked local grocery stores for necessities such as toilet paper, rice, and cooking oil to hoard.

Greenwood had been monitoring the Hong Kong situation in the *Asian Monetary Monitor (AMM),* the GT Management publication that he edited. He had published a number of analyses

[11] This was far above what the trade-weighted indexes for the currencies would allow for stability. Naturally, Hong Kong's average rate of money growth should have been growing at a ratio of about 1.9 times the average rate of money growth of its five major trading partners during this time period; in other words, if the average rate of money growth for the five major trading partners was 11 percent during this time period (which it was), then Hong Kong's money supply should have been growing at an average rate of about 21 percent. If it grew any faster, the HKD risked depreciation.

[12] This explains the slight lag in Hong Kong's currency depreciation after its floating in 1974. From 1974 to 1977, the HKD actually did quite well.

diagnosing the problems of Hong Kong's existing system and offering his ideas for ending the economic turmoil. He offered three ideas: using a central bank to target the money supply (Proposal 1), using a central bank to target the exchange rate (Proposal 2A), or using a currency board to target the exchange rate, returning to the currency board system after more than a decade (Proposal 2B).

Proposal 2B was eventually accepted.[13] The government chose to return to the U.S. dollar as the anchor currency, as had been the case from 1972 to 1974. United States dollars were chosen as the anchor currency because the dollar was one of the most prominent currencies in the world, the United States was a trading partner with Hong Kong, and linking to one currency was easier than linking to a basket. An exchange rate of HKD 7.80 to USD 1 was chosen because it seemed to be appropriately competitive, neither locking in inflation nor causing deflation. The 7.80 figure itself was not the result of a calculation; rather, it was a choice involving "acute personal judgment" on the part of the Hong Kong Financial Secretary.

The revived Hong Kong currency board succeeded and still stands to this day. It has survived the repercussions of the Tiananmen Square massacre, the East Asian currency crisis, the Great Recession, and COVID-19.

Hong Kong's currency board provided inspiration for proposals to establish currency boards elsewhere. In particular, Professor Steve H. Hanke of Johns Hopkins University was introduced to the details of the reestablishment of Hong Kong's currency board in 1983 by his colleague and collaborator Sir Alan Walters, who at the time was Margaret Thatcher's personal economic advisor (Hanke and Walters, 1992). Hanke worked, individually and with collaborators, to propose currency boards in a number of countries. As with Greenwood's proposal in Hong Kong, in a number of cases the proposals were made unsolicited, generating interest later when conventional, central banking approaches to monetary stabilization produced lackluster results.[14]

Hanke was involved in the discussion that preceded the establishment in 1991 of Argentina's Convertibility system, a quasi-currency board. To curb a triple-digit hyperinflation, Hanke worked with José María Ibarbia and the Alsogaray Faction of the National Congress of Argentina to propose a currency board system to President Carlos Menem. The proposal was laid out in detail in a book published in 1991 in Buenos Aires, *Banco Central o Caja de Conversion?,* which was co-authored by Hanke and Schuler (Hanke and Schuler, 1991). The proposal was eventually amended and watered down, resulting in what was called the Convertibility system, which killed the hyperinflation and lasted from 1991 to 2002. Like a currency board, the convertibility

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[13] Greenwood (2015, 2022). At first, few officials took Greenwood or the *AMM* seriously. But after writing to the Hong Kong government repeatedly and receiving the support of many economists, namely Milton Friedman, he was able to get his proposal across. This illustrates an important point in the art of money doctoring: it is an arduous process at times, requiring much patience and persuasiveness in addition to monetary acumen.

[14] <u>Note:</u> many of the following episodes do not come under our strict definition of "money doctor," but have been mentioned nevertheless.

system had a fixed exchange rate, full convertibility to an anchor currency (the US dollar), and 100% backing in anchor currency reserves, but unlike a currency board, the Convertibility system allowed Argentina's central bank, the BCRA, to engage in discretionary monetary policy, including sterilization and neutralization practices, as the BCRA's foreign assets had no ceiling relative to the BCRA's monetary liabilities and was allowed to alter the level of domestic assets on its balance sheet (Hanke, 2008).

Hanke, along with Lars Jonung, a Swedish economist who was then an economic adviser to Sweden's Prime Minister Carl Bildt, and Kurt Schuler, a Ph.D. student at George Mason University, published a book in both English and Estonian proposing a currency board system in Estonia in 1992 to stop the hyperinflation of the Russian ruble, which at the time was Estonia's currency (Hanke, Jonung, and Schuler, 1992). In May 1992, at the invitation of the Estonian Parliament, Hanke visited Talin and explained the proposal to what was, at that time, the Chairman of the Supreme Soviet of Estonia Arnold Rüütel, Prime Minister Tiit Vähi, and other Estonian politicians and notables. By June 1992, in one short month, Estonia adopted Hanke's currency board system. As a result, Estonia was the first former republic of the Soviet Union to have a new, stable currency, the kroon (fixed first to the German mark, later the euro), and the leader in the overall process of transitioning from socialism to capitalism.

Hanke's next stop was Lithuania in 1994, where he was appointed State Counselor with cabinet rank. Lithuania desired to put discipline and a hard budget constraint on the government's fiscal operations, and installed a currency board designed by Hanke in 1994 (Hanke and Schuler, 1994).

Next was Bulgaria, where Hanke was appointed advisor to the President, with his primary task being to stop Bulgaria's hyperinflation. To do that, Hanke designed and installed a currency board in July 1997, which he had first laid out in 1991 (Hanke and Schuler, 1991). Hyperinflation was immediately crushed.[15]

The next currency board to be installed was in Bosnia-Herzegovina in 1997. It was mandated by the Dayton Agreement, which brought the Balkan Wars to an end. In his role as an advisor to the U.S. government during the implementation of the Bosnia-Herzegovina currency board, Hanke's particular assignment was to ensure that the Bosnia-Herzegovina currency board would be as orthodox as possible. Of note is the fact that in 1990-91, when Hanke was operating as the personal economic advisor to the Deputy Prime Minister of Yugoslavia, Zivko Pregl, Hanke and Schuler wrote an influential book, *Monetary Reform and the Development of a*

[15] An interesting note about the Bulgarian currency board: in mid-1996, the Organization for Economic Cooperation and Development (OECD) Economic Survey of Bulgaria claimed that the Bulgarian economy was reeling. "The banking system had negative net worth and extremely low liquidity; the government limited resources to keep it afloat," they said. However, after the currency board's implementation in 1997, the OECD responded with a positive report: "The situation in the commercial banking sector is stable, appearing well-solvent and capitalized."

Yugoslav Market Economy, that was published in both English and Serbo-Croatian (Hanke and Schuler, 1991). That book paved the way for the insertion of the currency board mandate in the Dayton Agreement.

In addition to the aforementioned countries, Hanke, often with Schuler, proposed currency board systems to help other ailing economies. For example, in Albania, where Hanke was a Special Adviser to Deputy Prime Minister Gramoz Pashko from 1991-92, he proposed a currency board to a government that had just shaken off communism and was holding its first elections. Pashko was a trained economist and supported the currency board idea. Unfortunately, according to Hanke, he was a "disorganized and ineffective advocate" (Hanke 2016, p. 14). As a result, Hanke's proposal, which was contained in a book, *A Currency Board Solution for the Albanian Lek,* which he co-authored with Schuler, never saw the light of day (Hanke and Schuler, 1991). Ultimately, however, in 2020, for his role in introducing the Albanian leadership into circles in both Europe and the Balkans, Hanke was knighted and is a member of the Order of the Flag.

1994 saw Hanke's unexpected involvement in Kazakhstan. Impressed with Hanke's work in Lithuania, President Nursultan Nazarbayev appointed Hanke as his Advisor. On Hanke's first trip to Almaty, which was then the capital of Kazakhstan, Hanke was taken aback when the President informed him he wanted a currency board installed within a week.

Hanke informed President Nazarbayev that gathering all the necessary data and conducting due diligence on whether or not a currency board would be feasible in Kazakhstan would take longer than a week. As the time passed, Kazakhstan's desire for a currency board waned, and due diligence was never allowed to be performed.

In the meantime, Hanke shifted gears to focus on other currency reforms. One was Venezuela, where he was President Rafael Caldera's Chief Adviser and developed a plan for a Venezuelan currency board. This was published in a 1995 Hanke-Schuler book *Juntas Monetarias para paises en Desarrollo: Dinero, inflacion y estabilidad economica* (Hanke and Schuler, 1995). Once news broke out that Caldera was leaning toward adopting a currency reform that had been produced by a foreigner, however, debate surrounding currency boards in Venezuela became "emotional, if not nasty" (Hanke 2016, p. 23). The plan largely fell apart thereafter; Hanke was even mugged during his stay in Venezuela.

After the success of his currency board reforms in Bulgaria and Bosnia-Herzegovina in 1997, Hanke became President Suharto's advisor and a Special Counselor to the Economic and Monetary Resilience Council of the Republic of Indonesia in early 1998. Hanke proposed an orthodox currency board in which the rupiah would be fully convertible into the U.S. dollar at a fixed exchange rate. This was laid out in an article that Hanke co-authored with Nobelist Merton Miller and one of Hanke's former students, Christopher Culp (Culp, Hanke and Miller, 1999). On the day Hanke was appointed as Suharto's advisor, the rupiah soared by 28 percent against the U.S. dollar on both the spot and one-year-forward markets. These developments infuriated the U.S. government and the IMF.

Ruthless attacks on the currency board idea and the Special Counselor ensued. Suharto was told in no uncertain terms – by both the President of the United States, Bill Clinton, and the Managing Director of the IMF, Michel Camdessus – that he would have to drop the currency board idea or forego $43 billion in foreign assistance.

Economists jumped on the bandwagon, too. Every half-truth and non-truth imaginable was trotted out against the currency board idea. But, Hanke was supported by a number of prominent economists, including four Nobel Laureates in Economics: Gary Becker, Milton Friedman, Merton Miller, and Robert Mundell. Hanke's colleague and collaborator – Margaret Thatcher's economic guru Sir Alan Walters – also went public with his support of a currency board for Indonesia.

Why all the fuss over a currency board for Indonesia? Merton Miller understood the great game immediately. As he wrote to Hanke while he was in residence at the Shangri-La Hotel in Jakarta, the Clinton administration's objection to the currency board was "not that it wouldn't work but that it would, and if it worked, they would be stuck with Suharto." A similar argument was articulated by Australia's former Prime Minister Paul Keating: "The United States Treasury quite deliberately used the economic collapse as a means of bringing about the ouster of President Suharto." Former U.S. Secretary of State Lawrence 20 Eagleburger weighed in with a similar diagnosis: "We were fairly clever in that we supported the IMF as it overthrew (Suharto). Whether that was a wise way to proceed is another question. I'm not saying Mr. Suharto should have stayed, but I kind of wish he had left on terms other than because the IMF pushed him out." Even Michel Camdessus could not find fault with these assessments. On the occasion of his retirement, he proudly proclaimed: "We created the conditions that obliged President Suharto to leave his job."

In the end, it was the great American imperial power than put an end to the Hanke-Suharto currency board idea and to Suharto.

Over an extended period of time, Hanke was deeply engaged in dialogue about a currency board in Russia. It moved in cycles, from hot to cold. Hanke's first encounter was in June of 1991, when Sergei Krasavchenko, the Chairman of the Committee on Economic Reform and Ownership of the Russian Duma, and Vladimir Shumeyko, the Deputy Chairman of the Committee on Economic Reform and Ownership of the Russian Duma, and a delegation of ten Russian parliamentarians, paid Hanke a visit at The Johns Hopkins University in Baltimore, where he conducted a one-day briefing on currency boards on one hot June day in 1991.

Then, in November of 1991, a meeting with a delegation from Russia took place in Paris at a multi-day conference which Hanke and Mrs. Hanke helped arrange. The topic on the agenda was a currency board for Russia. One, who ended up leading the Russian delegation and embracing the currency board idea, was Yegor Gaidar, who upon returning to Moscow from Paris was appointed Minister of Economy and Finance.

In May of 1992, Hanke spent a considerable amount of time advocating for a Russian currency board. Among other things, he spent time with Anatoly Sobchak, Mayor of St. Petersburg and an influential advocate of economic reforms. Later in the year, Hanke and the former French Ambassador to Moscow Jean-Bernard Raimond paid Gaidar, who by then had become Acting Prime Minister, another visit to press the case for a currency board.

During 1992, Hanke spent time trying to beat back currency board objections coming from certain elements of the International Monetary Fund's (IMF) management. Their argument was, in short, that the IMF couldn't approve a Russian currency board because the U.S. Congress would be opposed to it. To ridicule this absurd anti-currency board argument, Hanke worked with the leader of the U.S. Senate, Bob Dole, and Senators Steve Symms and Phil Gramm to draft U.S. legislation that would allow countries to use part of the U.S.' quota contribution to the IMF for the establishment of currency boards. This legislation, known as the "Hanke- Amendment" (HR-5368, Law no. 102-391), was signed into law on October 6, 1992.

But, by then, the currency board idea had cooled down in Russia. However, in 1998, in began to heat up again. In the middle of the crisis (August 1998), IMF Managing Director Michel Camdessus rushed off to Crimea, with Hanke, Jonung, and Schuler's book *Russian Currency and Finance* in tow (Hanke, Jonung, and Schuler, 1995), for a meeting with the Prime Minister-designate, the late Viktor Chernomyrdin. It was then that Camdessus informed the Russian delegation that the IMF would back a Russian currency board. The currency board idea got hot again. But the type of discipline associated with a currency board wasn't agreeable to Moscow's power brokers, and the idea cooled down once again.

Hanke made one last attempt to sell the currency board idea to the Russians in March 1999, when he and Mrs. Hanke spent a weekend with Chernomyrdin at the Chateau de Divonne in Divonne-les-Bains, France. At that time, Chernomyrdin was no longer part of the government, but was serving as chairman of the Council of Directors of Gazprom. Hanke recalls that "my arguments clearly did not carry the day, and I reluctantly concluded that, unless the state of affairs dramatically changed, the prospects for a Russian currency board were not worth pursuing any further" (Hanke 2016, p. 16).

Argentina's economy struggled in the late 1990s under the effects of currency crises in other emerging markets, especially Brazil (Argentina's largest trading partner), plus domestic political changes that swung away from the free-market orientation of policy earlier in the decade. The Convertibility system started to have problems of credibility. In early 1999, President Menem requested that Hanke draft up a plan for dollarizing Argentina. This he did with Schuler (Hanke and Schuler, 1999). The idea went nowhere, and the Convertibility system suffered a massive crisis in 2001 and collapsed completely in early 2002.

Dollarization did take hold elsewhere, though. In Montenegro, Hanke, now Advisor to President Djukanovic and Montenegrin State Counselor, and Zeljko Bogetic, a Montenegrin who, at the time, was on the staff of the IMF, suggested that the replacement of the rapidly depreciating Yugoslav dinar with the German mark was both "feasible and desirable" (Bogetic and Hanke

1999). Montenegro adopted the mark as legal tender in November 1999 alongside the dinar. In practice, because of the unreliability of the dinar, the mark quickly became the dominant currency.[16]

In Ecuador, Hanke first discussed currency reform and a currency board with government officials and Ecuadorian leadership in 1996 (Hanke, 2002). In 1999, Ecuador was in a currency and banking crisis. Kurt Schuler, who was then an economist at the Joint Economic Committee of the U.S. Congress, wrote explanatory papers about dollarization for the committee, and, with the approval of the staff director, visited Ecuador to discuss dollarization with local economists and business leaders in Guayaquil who favored it. During that period, Hanke visited Ecuador several times to press the case for dollarization. The currency deteriorated at an accelerating pace toward the end of the year. In early January 2000, President Jamil Mahuad announced, to the surprise of everyone and the delight of advocates of dollarization, that Ecuador would adopt the U.S. dollar as its currency to stop the inflation and currency devaluation afflicting the Ecuadorian sucre. Schuler advised a local think tank, the *Instituto Ecuatoriano de Economía Política*, in its effort to offer suggestions to flesh out Mahuad's announcement, which lacked details. Some of the suggestions were adopted in legislation that the Ecuadorian Congress passed in March 2000.

Dollarization was not popular with some segments of Ecuador's political class. Mahuad was ousted in a coup later in January 2000, but the coup leaders then backed down and allowed his vice president to assume the presidency. Hanke became an Advisor to Ecuador's Minister of Economy and Finance Carlos Julio Emanuel in 2002 to help implement dollarization. Dollarization has endured to the present, making it Ecuador's longest-lasting monetary policy during the more than two centuries of Ecuador's independence.

Besides proposing dollarization and currency boards, money doctors since the end of the Bretton Woods system have also worked in a more conventional central banking vein. Jeffrey Sachs, then a professor of economics at Harvard University, worked alone and with one of his former students, David Lipton, on currency stabilizations through central banking, often accompanied by other reforms. Sachs was also a member of and from 1995 the director of the Harvard Institute for International Development, which secured a number of contracts from the U.S. government to assist with economic reforms in various countries. Sachs came to prominence as an adviser to the Bolivian government in its successful taming of high inflation in 1985. He then worked with the Polish government on a far-reaching reform package that took effect in 1989 as Poland became the first Soviet bloc country to begin a transition from socialism to capitalism. The package became known as "shock therapy" for its emphasis on rapid change, both for economic and political reasons. Though much criticized in some quarters at the time, in retrospect it compares well with the more gradual reform strategies that most

[16] Since Montenegro and Serbia were part of Yugoslavia in 1999, Hanke's reforms were met yet again with political opposition. After Montenegro President Milo Djukanovic independently decided to make the German mark legal tender, Yugoslavian President Slobodan Milošević was infuriated. Hanke was subsequently (and wrongly) accused of destabilizing the Serbian economy by flooding it with counterfeit dinars and being a French secret agent whose mission was to assassinate Milošević.

other Soviet bloc countries adopted. Sachs and Lipton also advised Russia, Slovenia, and Estonia in the early stages of their transitions from socialism to capitalism. In Slovenia, Sachs, Lipton, and the Slovenian economist Boris Pleskovic were involved with planning in 1991, when Yugoslavia broke up, to replace the depreciating Yugoslav dinar with a more stable local currency, the Slovenian tolar. In Estonia, Sachs, Pleskovic, and the Estonian economist Ardo Hansson in 1992 proposed a system with similarities to Argentina's convertibility system, but did not use the words "currency board" to describe it (Eesti Pank 2014: 30).

10. Analysis and Conclusion

As the table above showed, there have been several dozen money doctors since 1860. They have implemented various reforms according to the circumstances of the countries they have operated in, but most of the reforms can be classified as currency stabilization, gold or gold exchange standard implementation, central bank creation, domestic development project institutionalization, currency board adoption, or dollarization.

In compiling this paper, we noticed an evolution in the nature of "monetary prescriptions" made by money doctors worldwide. What started out as a need for money doctors to establish free banking laws, gold exchange standards, and central banks in directionless economies has transitioned into currency board and dollarization-related arrangements for economies with actively collapsing currencies. Moreover, we realized that the most sustainable reforms have been those of central bank creation, since central banks are permanent institutions, followed by currency-saving reforms such as currency board adoption and dollarization.[17] Although domestic development projects have been successful in spurts, their effects have usually only been temporary. The gold exchange standard has been the least effective monetary reform of all, largely due to war, the Great Depression, or a shift in the domestic economy's sentiment toward a fiat money standard. The reasons for a reform falling apart have usually been war, deep economic recession or depression, or other extenuating circumstances.

Concerning exchange rate reforms, it is noteworthy that those involving currency boards and dollarization have been more durable than those involving central banks. Hong Kong's exchange rate of HKD 7.80 per U.S. dollar is now almost 40 years old and has never failed. In the same period, the Fed has had four different targets for monetary policy: the Federal funds rate, 1983-93; price stability with no numerical target, 1993-2012; 2 percent inflation, 2012-20; and flexible average inflation targeting of 2 percent, since 2020, arguably already a failure. Bosnia and Bulgaria's currency boards have passed their quarter-century anniversaries intact. Estonia and Lithuania ceased issuing national currencies to join the euro area, but during the lives of their currency boards, their exchange rates remained unchanged. (Lithuania did switch anchors from the U.S. dollar to the euro in 2002 at the market rate.)

[17] Comparing the two, however, we see that central banks have failed to stabilize local currencies for more than several years (sometimes less), whereas currency boards and dollarization have not.

Even where exchange rates have not lasted, the institutional structures that money doctors have created have often endured. The IMF has now spent twice as long since the collapse of the Bretton Woods system as under that system, which it was created to guide. Some of the central banks that Edwin Kemmerer had a hand in creating are now about a century old.

Finally, we detect two types of money doctors—those whose reforms have been part of a big package and those whose reforms are more narrowly targeted. Our impression is that over the long run, the latter class of money doctors has been more successful with regards to the longevity of their proposals, since they oftentimes removed the monetary pathogen from its root source rather than merely treating its immediate symptoms.

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