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THE BANK OF FRANCE AND THE GOLD DEPENDENCY: OBSERVATIONS ON THE BANK'S WEEKLY BALANCE SHEETS AND RESERVES, 1898-1940

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The balance sheets of an institution as influential and long-standing as the Bank of France provide insights into the historic monetary policies of central banks, as well as present an overview of long-term trends and patterns within the broader realm of financial history. From its onset, the entity known as *la Banque de France* achieved and maintained global significance in supporting France's macroeconomic policies. This research specifically looks at the driving factors that shaped the Bank's monetary policies, in addition to exploring how these policies manifested themselves on its balance sheets. Delving into the Bank's strategies for resolving immediate financial crises helps to establish a framework for understanding the fundamental challenges that central banks face when combating the long-term economic disasters and geopolitical calamities of the twentieth century.

Using data from the Bank's financial statements compiled by Professors Olivier Feiertag and Michel Margairaz, and further aggregated by Dr. Kurt Schuler, this essay delves into the specific monetary policies of the Bank during World War I, the Great Depression, and World War II.[1] Pursuant to contemporary policies, financial statements represented the goals and aspirations of the Bank's Governors. In particular, the Governors maintained a weekly, and later monthly, tally of the financial health of the institution, the *Situation Hebdomadaire de la Banque de France*. This series of documents, mandated by the statutes set forth in the decree of March 1848, was published weekly in the *Moniteur*, the newsletter of government and legislative events, to provide transparency into the Bank's operations.[2] Certain laws and decrees (*arrêtés*) also act as supplementary material to these balance sheets, contextualizing the actions of the Bank within a broader framework. These two sources complement one another, providing a glimpse into the specific role of reserves in monetary affairs.

Past scholarly work on the Bank as an institution is thorough both in scope and in depth. Professor Patrice Baubeau has conducted research on the Bank's financial statements, asserting that its balance sheets themselves act as a microeconomic data series that presents "undisputable macroeconomic significance."[3] Additionally, H. Clark Johnson's *Gold, France, and the Great Depression, 1919-1932* contextualizes the history of the Bank within its larger international role, especially in the years leading up to the crisis of 1929.[4] Yet room still remains for further research on the Bank. This paper addresses the role of gold, silver, and foreign-

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[1] Banque de France, *Situation Hebdomadaire de la Banque de France – 1898-1974*, https://www.banque-france.fr/la-banque-de-france/histoire/annuaire-historique/situation-Hebdomadaire-de-la-banque-de-france-1898-1974. The balance sheets were compiled by Professors Olivier Feiertag (Université de Rouen) and Michel Margairaz (Université Paris 1 Panthéon-Sorbonne); English translations and simplified aggregate categories were provided by Dr. Kurt Schuler (Center for Financial Stability).

[2] Patrice Baubeau, "Introducing a New Database: The Banque de France's Weekly Balance Sheets, 1840-1998," *European Association for Banking and Financial History e.V. Newsletter* (2010), 48-49, www.bankinghistory.org/wp-content/uploads/2010-1-bulletin.pdf.

[3] Patrice Baubeau, "A Long-Term View at the Banque de France's Balance Sheets: Labels, Frequency and Historical Insight, 1830-1998," *10th Conference of the South-East European Monetary History* (2015), https://www.researchgate.net/publication/284899169_A_long-term_view_at_the_Banque_de_France%27s_balance_sheets_labels_frequency_and_historical_insight_1830-1998.

[4] H. Clark Johnson, *Gold, France, and the Great Depression, 1919-1932* (New Haven: Yale University Press, 1997), 10.

currency reserves in representing the Bank's monetary policy and acting as a proxy for macroeconomic health. For the Bank, these three line items were the main drivers of change and heavily influenced the stability of the global economy.

Guillaume Bazot, Michael D. Bordo, and Eric Monnet have highlighted the institution's attempts to smooth international shocks while maintaining a stable discount rate during the gold-standard era. Increases in the British discount rate led to a subsequent decrease in French reserves, which were seemingly offset by changes in its own asset portfolio.[5] But, although the Bank's assets were often used to avoid raising this rate, the rapid changes in reserves were in themselves a manifestation of contemporary economic policies at work.[6] In essence, the Bank relied on reserves to guide monetary policy and intervene in the money market, as well as to hedge against potential systemic risk during financial crises. In related research, Professor Olivier Accominotti argues that the Bank aimed to "limit the risk of capital loss on its foreign portfolio" through currency reserves.[7] Indeed, the policies surrounding an immobile discount rate and the maintenance of its gold reserves, as opposed to the Bank of England's flexible rates and low gold reserves, indicated that the Governors preferred stability to rapid growth and price stability to inflation. Throughout the complex history of the Bank, the amount of reserves appeared to represent the inherent goals and willingness of the administration to respond to monetary crises through the endless pursuit of an ever-growing portfolio of reserves.

The Bank evidently adapted its monetary agenda based on prevalent economic thought and geopolitical events, as reflected on its weekly balance sheets. Throughout the first half of the twentieth century, it actively sought more reserves. The Governors viewed these assets, particularly gold, as a potential hedge against market volatility and, indeed, an economic stabilizer. This research seeks to provide a new narrative, studying the changes and fluctuations to its foreign-currency and metallic-reserve portfolios. It argues that the Bank actively managed its gold and silver reserves (*réserves métalliques*), along with its current account and foreign currencies (*comptes courants et devises*), which acted as a hedge against adverse business catastrophes, both realized or expected, and in certain cases, to its own detriment. A reading of these balance sheets seeks to clarify the will and reflects the historic ability of the Bank's officials to adapt to a changing macroeconomic climate, factoring in both the implications for the national economy and the international community. This paper is organized as a historical narrative, summarizing the current historiographical debates and outlining the role of the Bank of France over nearly half a century of change. Furthermore, studying monetary policy over longer periods may elucidate the vital role of central banks in times of prosperity as well as in times of crisis.

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[5] Guillaume Bazot, Michael D. Bordo, and Eric Monnet, "The Price of Stability: The Balance Sheet Policy of the Banque de France and the Gold Standard (1880-1914)," *NBER Working Papers* No. 20554 (October 2014), 2, http://www.nber.org/papers/w20554.pdf.

[6] Ibid., 7.

[7] Olivier Accominotti, "The Sterling Trap: Foreign Reserves Management at the Bank of France, 1928-19," *European Review of Economic History* 13, No. 3 (2009), 349.

Early Financial History

In 1799, the government of the French First Republic, *Le Consulat*, convened to discuss the creation of an institution solely responsible for issuing bank notes in Paris. Several legislative committees in Paris, at the request of Napoléon Bonaparte, laid the foundation for and established the statutes of the *Banque de France*, which began operating the following year.[8] Similar entities had existed before, including the *Banque Générale*, opened by Scottish banker John Law, and the *Banque Royale*, sanctioned by the House of Bourbon. Yet this Bank of France, the monetary authority of the Third, Fourth, and Fifth Republics, served a different function from its predecessors: rather than only extending credit and financing the king's expenditures, the Bank retained the exclusive right to issue paper money for the next 15 years.

Two hundred shareholders from the General Assembly (*Assemblée Générale*) directly elected the Bank's board, the General Council (*Conseil Général*).[9] According to the 1808 statutes, a single *Gouverneur* and supporting *Sous-Gouverneurs* (deputy governors), *Régents* (voting board members), and *Censeurs* (nonvoting board observers) formed the General Council, members of which determined the discount rate and the volume of issued bank notes.[10] They met on a weekly basis and were accountable for all of the Bank's affairs. After a number of financial crises in France, the Bank expanded in size and in operations to ensure fiscal stability throughout the country. By two decrees of April and May 1848, the assets and liabilities of the Banks of Rouen, Lyon, Le Havre, Lille, Toulouse, Orleans, Marseille, Nantes, and Bordeaux were consolidated into the statements of this single institution.[11] The scope of its banking operations further expanded to other regions, where it obtained a monopoly on the issuance of notes.

Banks also were instrumental in the creation of a continental monetary system. The Latin Monetary Union (LMU) developed as a currency union among countries with geographic and historic ties. In December 1865, France, Belgium, Italy, and the Swiss Confederation adopted a unified monetary policy, establishing the LMU franc (equal to the French franc) as the common bimetallic currency.[12] The LMU later grew in size to include additional countries and, after limiting the free conversion of silver, effectively operated on the gold standard from 1874

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[8] "Loi: 24 germinal an XI," *La Banque de France: Histoire*, Articles 1 and 2 (14 April 1803), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=7.

[9] "Statuts Primitifs de la Banque de France," *La Banque de France: Histoire*, Article 8 (13 February 1800), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=2.

[10] "Décret: Relatif aux Statuts Fondamentaux de la Banque de France," *La Banque de France: Histoire*, Articles 34, 35, and 38 (16 January 1808), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=22.

[11] "Décret: Portant Réunion de la Banque de France et des Banques de Rouen, Lyon, Le Havre, Lille, Toulouse, d'Orléans et de Marseille," *La Banque de France: Histoire*, Article 5 (27 April 1848), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=59; "Décret: Portant Réunion de la Banque de France et des Banques de Nantes et de Bordeaux," *La Banque de France: Histoire*, Article 2 (2 May 1848), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=62.

[12] "Convention Monétaire: Conclue entre la France, la Belgique, l'Italie et la Suisse," *La Banque de France: Histoire*, Article 1 (23 December 1865), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=73.

onwards.[13] In spite of the LMU, the Bank of France retained a degree of economic autonomy, as it was not obliged to accept bank notes in exchange for silver.[14]

However, the Bank still faced operational limitations on bills of exchange. While the French economy witnessed rapid growth in the 1890s,[15] an estimated 1,318 provincial banks of both the *régionales* and *locales* variety, drove much of this expansion.[16] Retroactively known as *La Belle Époque*, the decades prior to the Great War saw significant advancements in the financial sector. Since Paris held a competitive position as one of a handful of global business capitals, the Bank proved to be vital in sustaining international economic stability. To address its restrictions on bills and to alleviate pressures on domestic interest rates, the Governors ordered the purchase of foreign bills of exchange (shown on the balance sheets as *effets sur l'étranger*) and sold them at the same price plus a fixed interest rate.[17] These bills acted as money-market instruments, with which the Bank of France or a provincial bank could have manipulated the discount rate. Through this process, bills provided short-term credit to investors, allowing money to be transported and accepted throughout the French republic.[18]

By these measures, the Classical Gold Standard era (1870s – 1914) spurred financial innovation and economic prosperity. Gold reserves (*encaisse or*) remained essential to maintaining stable exchange rates, but were also particularly influential in supporting a stable discount rate. For instance, one scholar noted that the Bank's monetary policies were quite different from those of its counterparts the Bank of England and the German Reichsbank, as the former sought to maintain low interest rates, while the latter sought to reach specific gold-reserve targets.[19] That is, in order to retain confidence in the monetary system, the Bank of France had to retain a minimum level of reserves against its printed notes. Bazot, Bordo, and Monnet argue that, in addition to its ability to discount, the Bank frequently employed "gold devices" by offering a premium on gold and rising interest rates on gold exports.[20] In most cases, following any

[13] "Starting in late 1873, more measures to restrain silver money appear. For example, LMU members agreed to suspend free coinage of silver as of 31 January 1874"; Kee-Hong Bae and Warren Bailey, "The Latin Monetary Union: Some Evidence on Europe's Failed Common Currency," *Review of Development Finance* 1 (2011), 134, https://www.sciencedirect.com/science/article/pii/S1879933711000029.

[14] Sophia Lazaretou, "Greek Monetary Economics in Retrospect: The Adventures of the Drachma," *Bank of Greece Working Papers* No. 2 (2003), 11, https://www.bankofgreece.gr/bogekdoseis/paper200302.pdf; Rémy Contamin, "Interdépendances Financières et Dilemme de Politique Monétaire: La Banque de France entre 1880 et 1913," *Revue Économique* 54 (2003), 162, https://www.cairn.info/revue-economique-2003-1-page-157.htm.

[15] Shizuya Nishimura, "The French Provincial Banks, the Banque de France, and Bill Finance, 1890-1913," *The Economic History Review* 48, No. 3 (1995), 536.

[16] Ibid., 537-538.

[17] Bills of exchange also settled exchange-rate deviations that diverged from central (mint) parity; see Baubeau, "A Long-Term View at the Banque de France's Balance Sheets," 14; Matthias Morys, "Monetary Policy under the Classical Gold Standard (1870s - 1914)," *Papers at the 2011 ASSA Sessions*, 8, http://cliometrics.org/conferences/ASSA/Jan_11/Morys.pdf.

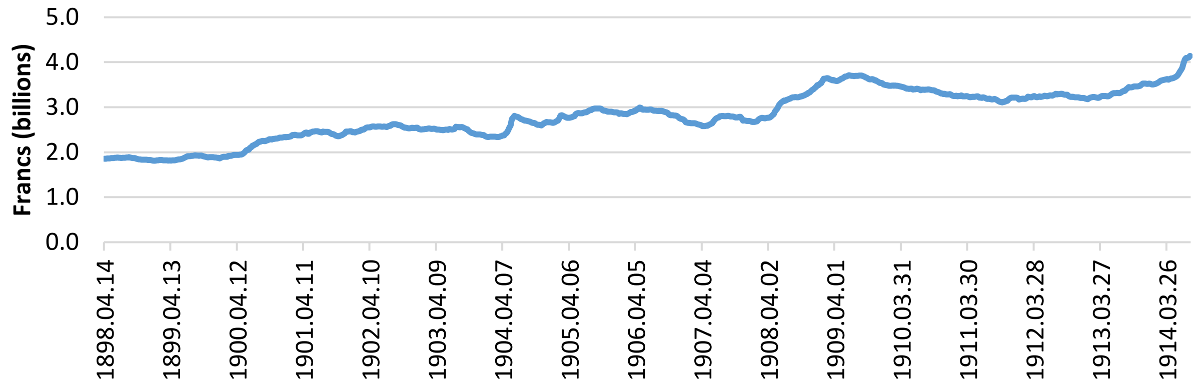
[18] Jean-Marcel Jeanneney, "Monnaie et Mécanismes Monétaires en France de 1878 à 1939: Observations et Diagnostics Économiques," *Observatoire Français des Conjonctures Économiques* No. 24 (July 1988), 9, https://www.ofce.sciences-po.fr/pdf/revue/1-024.pdf.

[19] Johnson, *Gold, France, and the Great Depression*, 32.

[20] Bazot, Bordo, and Monnet, "The Price of Stability," 6.

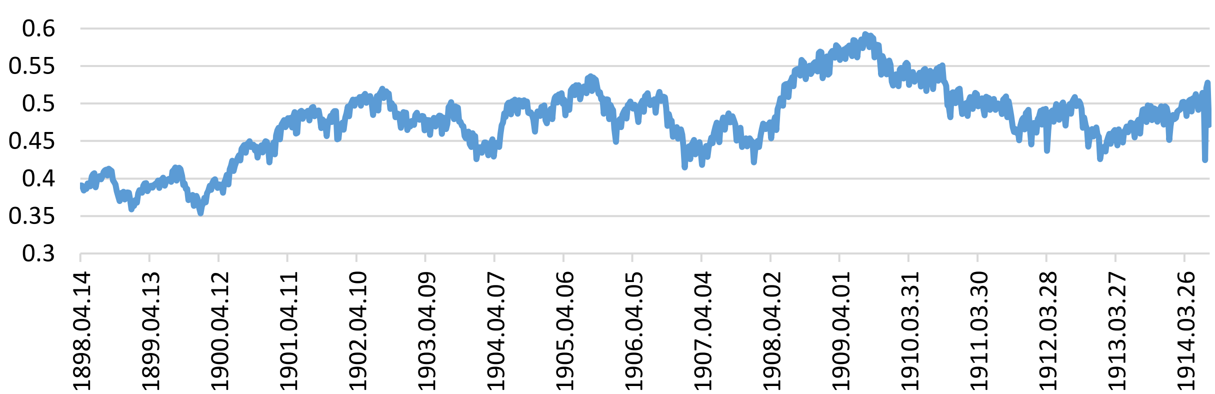
subsequent rise in British discount rates, there would have been a subsequent depreciation of the franc and, thus, a decrease in the volume of gold reserves. Yet the gold devices allowed the Bank to manage international fiscal shocks by depreciating the franc.[21] This mechanism resulted in an enhanced ability to implement monetary policy without severely depleting its gold stock.

Figure 1: Nominal Gold Reserves, 1898-1914



Of additional interest to financial historians may be the figures for gold reserves as a percentage of total assets. This ratio represents the Governors' ability to stabilize exchange rates; it measures the increases in gold that the Bank had to maintain during the gold standard, while also accounting for its expanding balance sheets. The composition of the foreign reserve portfolio portrays active changes to the assets that backed the currency, as well as the ensuing goals of a monetary institution. Within the confines of the law, the Bank used its gold reserves to curtail exchange-rate fluctuations. During crises, these reserves became highly covetable to the Bank as gold was a particularly liquid asset. In the years between the beginning of the balance sheets' publication and World War I, the average reserves-to-assets ratio rose fairly steadily from an average of 0.455 in the 1898-1905 period to 0.499 in the 1906-1914 period.[22]

Figure 2: Ratio of Gold Reserves/Total Assets, 1898-1914



[21] Contamin, "Interdépendances Financières et Dilemme de Politique Monétaire," 173.

[22] *Situation Hebdomadaire de la Banque de France.*

World War I

At the outbreak of the Great War in 1914, the Bank of France immediately began to sell short-term Treasury bonds abroad. As the country's monetary authority, it was permitted to place an initial advance of up to 2.9 billion francs on these national defense bonds (*bons de la défense nationale*). On its balance sheet, liabilities began to increase and peaked at 35 billion francs by the end of the war.[23] These bonds acted as fixed-interest securities for the Treasury, replacing the short-term floating debt that financed expenditures during the initial 15 months of the war.[24] Cooperation efforts between corresponding banks in France and Britain also heightened following the French sale of gold, valued at around £8 million in December of that year.[25] (The prewar exchange rate was roughly 25 francs = £1.) Finance ministers from these countries collaborated with bankers in other Allied nations, extending them credit and floating joint-foreign loans equal to an estimated US$4.3 billion by April 1917.[26]

Along with many other countries that abandoned the gold standard to fund the war effort, the French government began printing money at a rate that depreciated the value of the franc, at one point, to one-eighth of its prewar gold parity.[27] France had effectively abandoned the standard at the beginning of the war, temporarily suspending convertibility. For most of the Bank's history, the gold standard had been its guiding principle. And, indeed, the Bank sought to maintain that policy: from 1914 to 1918, the official gold stock rose by an average annual rate of 9.2 percent per year.[28] In addition, the Bank organized campaigns in local communities to encourage the domestic population to surrender its gold in exchange for paper currency.[29] The war instilled a hunger for gold in government and in the central bank.

By August 1917, the Ministry of Commerce and Industry strived to take a decentralized approach to economic affairs. The French government envisioned a reformed financial system for the country. Minister Étienne Clémentel aimed to support economic regionalization through a series of reforms, dividing the country into 20 distinct zones.[30] These *regions économiques* represented the first major attempts at fiscal reform since the central bank's founding more than a century earlier. With a more decentralized model, Clémentel sought to encourage local

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[23] A. Ribot, "Lettre: Du Ministre des Finances au Gouverneur de la Banque de France, Relative aux Avances de la Banque à l'Etat," *La Banque de France: Histoire*, (18 September 1914), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=163; L-L. Klotz, "Décret: Portant Élévation du Chiffre Maximum des Émissions de Billets de la Banque de France," *La Banque de France: Histoire*, (3 May 1918), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=176.

[24] Barry Eichengreen, "The Bank of France and the Sterilization of Gold, 1926-1932," *Explorations in Economic History* 23, No. 1 (1986), 59.

[25] Gerd Hardach, *The First World War, 1914-1918* (Berkeley: University of California Press, 1977), 145-146.

[26] Ibid., 145-146.

[27] Ibid., 147.

[28] *Situation Hebdomadaire de la Banque de France.*

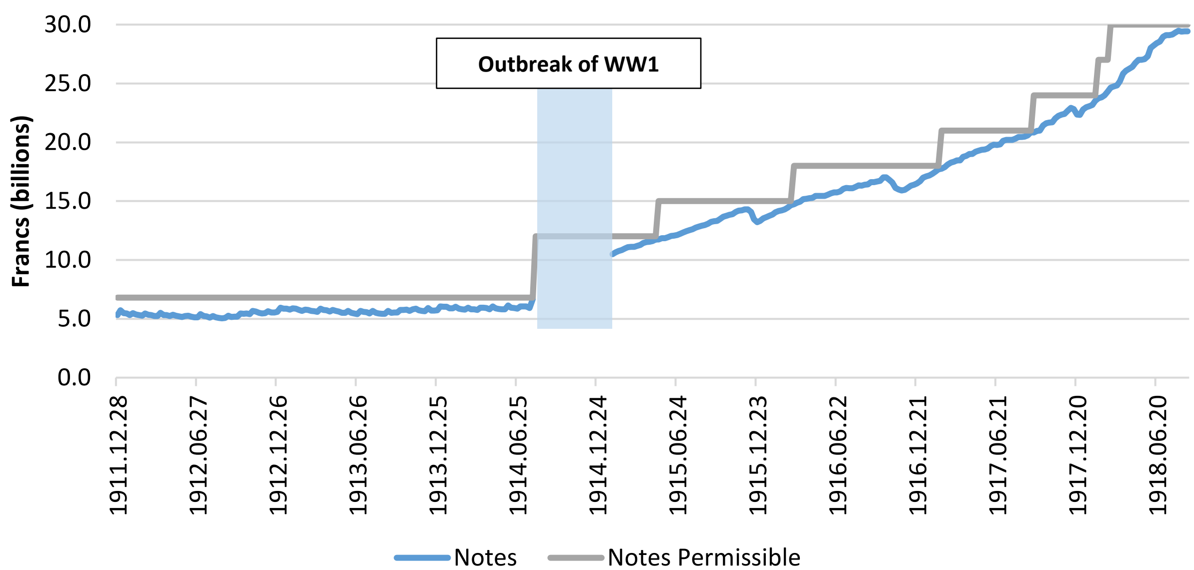
[29] Kenneth Mouré, "The Gold Standard Illusion: France and the Gold Standard in an Era of Currency Instability, 1914-1939," in *Crisis and Renewal in France, 1918-1962*, eds. Kenneth Mouré, Martin S. Alexander (New York: Berghahn Books, 2002), 68.

[30] Annie Sevin, "Les Acteurs Économiques et le Régionalisme Lorrain de la Belle Epoque," *Annales de Géographie* 115, No. 648 (2006), 175, www.persee.fr/doc/geo_0003-4010_2006_num_115_648_21308.

business endeavors by lowering dependence on foreign products and instituting higher tariffs.[31] And, recognizing the shortcomings of the current banking system, he also implemented a plan to extend credit to individuals and small enterprises through the *Banques Populaires*.[32]

Implications for this credit extension for the Bank can be found in its financial statements. During the war, the Bank temporarily ceased publication of its weekly balance sheets, contrary to the 1864 stipulations requiring it to do so.[33] Yet short-term notes exponentially increased as they acted as a means for financing military expenditures. The maximum volume of notes that the Bank was permitted to issue rose from 6.8 billion francs at the beginning of the war to 33.0 billion francs by the end. The notes issued often came close to this upper limit: from France's entrance into the war to the signing of the armistice in November 1918, the Bank issued approximately 87 percent of the total permissible notes; over this same period, notes rose by around 361 percent.[34]

Figure 3: Notes, 1911-1918



[31] David Stevenson, *Cataclysm: The First World War as Political Tragedy* (New York: Basic Books, 2004), 116.
[32] "Loi du 13 Mars 1917 Ayant pour Objet l'Organisation du Crédit au Petit et au Moyen Commerce, à la Petite et à la Moyenne Industrie," *Légifrance*, https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000879325.
[33] From 1848 to 1852 and again beginning in 1864, the Bank had maintained weekly balance sheets except during periods of war. Due to the outbreak of World War I, no weekly balance sheets were published between August 1914 and January 1915; *Situation Hebdomadaire de la Banque de France.*
[34] *Situation Hebdomadaire de la Banque de France.*

Figure 4: Maximum Legal Note Issue of the Bank of France Notes, 1911-1918

Date	Maximum notes issued in francs (billions)	Change from prior law
29 December 1911	6.8[35]	-
5 August 1914	12.0[36]	+ 76.4 percent
11 May 1915	15.0[37]	+ 25.0 percent
15 March 1916	18.0[38]	+ 20.0 percent
15 February 1917	21.0[39]	+ 16.7 percent
10 September 1917	24.0[40]	+ 14.3 percent
7 February 1918	27.0[41]	+ 12.5 percent
3 May 1918	30.0[42]	+ 11.1 percent
5 September 1918	33.0[43]	+ 10.0 percent

The Interwar Gold Standard

After the Great War, the Bank of France sought to re-establish its gold standard.[44] France suffered from astronomical debts, amounting to 42 billion francs by 1919, and from an excess money supply. Preliminary research on the Bank's balance sheet has identified that a lack of "a clear conceptual framework on how to deal with debt overhang without imposing a deflation"

[35] "Loi: Portant Modification de la Loi du 17 Novembre 1897 et Approbation de la Convention en Date du 11 Novembre 1911 et de la Convention Additionnelle du 28 Novembre 1911, Passées entre le Ministre des Finances et la Banque de France," *La Banque de France: Histoire*, Article 1 (29 December 1911), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=159.

[36] "Loi: Portant Augmentation de la Faculté d'Émission des Banque de France et de l'Algérie, Établissant à Titre Provisoire le Cours Forcé de Leurs Billets et Approuvant des Conventions Passées avec ces Établissements," *La Banque de France: Histoire*, Article 1 (5 August 1914), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=161.

[37] "Décret: Portant Élévation du Chiffre Maximum des Émissions de Billets de la Banque de France," *La Banque de France: Histoire*, Article 1 (11 May 1915), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=167.

[38] "Décret: Portant Élévation du Chiffre Maximum des Émissions de Billets de la Banque de France," *La Banque de France: Histoire*, Article 1 (15 March 1916), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=169.

[39] "Décret: Portant Élévation du Chiffre Maximum des Émissions de Billets de la Banque de France," *La Banque de France: Histoire*, Article 1 (15 February 1917), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=170.

[40] "Décret: Portant Élévation du Chiffre Maximum des Émissions de Billets de la Banque de France," *La Banque de France: Histoire*, Article 1 (10 September 1917), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=171.

[41] "Décret: Portant Élévation du Chiffre Maximum des Émissions de Billets de la Banque de France," *La Banque de France: Histoire*, Article 1 (7 February 1918), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=173.

[42] "Décret: Portant Élévation du Chiffre Maximum des Émissions de Billets de la Banque de France," *La Banque de France: Histoire*, Article 1 (3 May 1918), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=176.

[43] "Décret: Portant Élévation du Chiffre Maximum des Émissions de Billets de la Banque de France," *La Banque de France: Histoire*, Article 1 (5 September 1918), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=178.

[44] Johnson, *Gold, France, and the Great Depression*, 2.

as one of the blockers to economic recovery.[45] Another challenge was the collapse of the Reichsmark following Germany's defeat, which "created a vacuum into which francs were drawn."[46] Notably, in the Saarland, Palatinate, and Rhineland, which fell under French occupation, francs became the de facto legal tender for around 10 million inhabitants. Concerns emerged surrounding not simply the weakened mark, but the currencies of France and Britain. As H. Clark Johnson has articulated, "[t]he functional weakness of the interwar gold standard was that it rested on an inadequate real quantity and a historically low real price of gold."[47]

Attempting to restrain its own spending, the government limited the Bank's advances to the Ministry of Finance in the François-Marsal Convention of December 1920.[48] The Bank, however, found itself unable to sustain operations under this limit and violated the ceiling on several occasions. Speculative attacks on the franc began as early as March 1924, testing the institution's ability to respond to crises. Foreign investors viewed the franc as overvalued given the country's war debts, and securities valued at 50 billion francs began to approach their maturity dates.[49] The exchange-rate crisis proved to be devastating. Although gold reserves had been protected, the Bank found it difficult to attract buyers for its short-term debt.[50] In addition, the Governors held firm in their commitment not to purchase currencies at any level above the prewar franc parity, effectively confirming the Bank's unwillingness to stabilize its currency.[51] While intervention on foreign-exchange markets did not seem impossible, several of the Regents—led by industrialists François de Wendel, Théodore Laurent, and Eugène Schneider—refused to issue any *new* banknotes in fear of generating more inflation.

Instead, the Bank borrowed US$100 million from J.P. Morgan & Co. and £5 million from a British syndicate in an effort to defend the franc from fluctuations of the prewar exchange rate.[52] These funds were subsequently used to discount bonds (*obligations*) tax-free and duty-free in the U.S.[53] In addition, the Morgan loan allowed the Governors to buy francs with dollars in an effort to re-stabilize exchange rates. But speculators continued to attack the franc, sparking a second currency crisis in 1926. Under the direction of a new Finance Minister, Émile Moreau, the Bank negotiated a loan from Dillon, Read & Co., another American financial institution. These two major loans changed the very composition of the Bank's balance sheets. Foreign loans appeared in the asset portfolio as gold, silver, and foreign currency purchased (*or argent et devises achetées*). In 1926 alone, this line-item increased from 6.7 million francs in

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[45] Vincent Bignon and Marc Flandreau, "The Other Way: A Narrative History of the Bank of France," *Centre for Economic Policy Research Discussion Papers* DP13138, 22, https://cepr.org/active/publications/discussion_papers/dp.php?dpno=13138.

[46] Charles P. Kindleberger, *A Financial History of Western Europe* (London: George Allen & Unwin, 1984), 347.

[47] Johnson, *Gold, France, and the Great Depression*, 2.

[48] Kindleberger, *A Financial History of Western Europe*, 347.

[49] Ibid., 350.

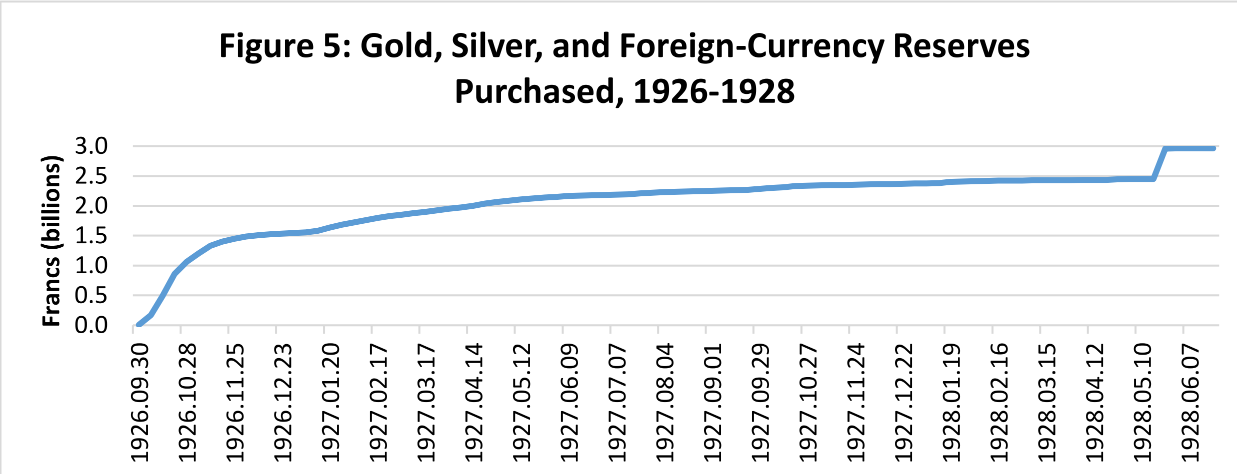
[50] Liaquat Ahamed, *Lords of Finance: The Bankers Who Broke the World* (New York: Penguin Books, 2009), 241.

[51] Johnson, *Gold, France, and the Great Depression*, 79.

[52] Ibid.

[53] "Loi: Concernant l'Émission d'un Emprunt de 7% aux États-Unis," *La Banque de France: Histoire*, Article 1 (21 November 1924), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=189; Johnson, *Gold, France, and the Great Depression, 1919-1932*, 79.

September to 1,547.3 million by year's end.[54] This "bulging portfolio of foreign holdings," as Accominotti suggested, was the assured technique for avoiding excessive fluctuations against the franc.[55]



On 7 August 1926, the Governors passed a new law, which authorized them to make purchases of gold, silver, and foreign currencies on the open market.[56] Bignon and Flandreau have attributed the Bank's financial woes during the interwar period to its greater involvement in government financing and subsequent debt overhang: "Before 1926, no serious attempt was undertaken to consolidate the floating debt into long-term bonds or to create or endow a public institution with the goal of holding the debt overhang."[57] Because wartime expenditures had instigated inflation, the Bank decided to stabilize the franc by manipulating its gold, silver, and foreign-asset reserves. The restoration of the gold standard for the country meant a restoration of monetary authority for the Bank. At first, the Bank found foreign reserves, especially sterling and U.S. dollars, to be particularly attractive.[58] Driven by an anti-inflationary agenda, the Bank's Regents, largely at the behest of Wendel, wanted to accumulate more foreign-currency reserves—that is, selling francs for pounds and dollars—to combat domestic inflation. But, when they later believed the sterling was becoming overvalued, Governor Émile Moreau undertook a series of swap operations, selling sterling spot contracts on the money market and purchasing forwards against them.[59] He also ceased renewals of additional sterling contracts as a means of securing the Bank's gold reserves.

Perhaps a reason for this gold hoarding stemmed from the idea that a central bank needed to hold global influence. Professor Kenneth Mouré has asserted that the gold-exchange standard

[54] *Situation Hebdomadaire de la Banque de France.*

[55] Accominotti, "The Sterling Trap," 351.

[56] L-L. Klotz, "Loi: Concernant des Opérations en Vue de la Stabilisation de la Monnaie," *La Banque de France: Histoire*, Article 2 (7 August 1926), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=193.

[57] Bignon and Flandreau, "The Other Way," 20.

[58] Douglas A. Irwin, "The French Gold Sink and the Great Deflation of 1929–32," *Cato Papers on Public Policy* 2 (2012), 13, https://www.dartmouth.edu/~dirwin/French%20Gold%20Sink.pdf.

[59] Kindleberger, *A Financial History of Western Europe*, 359.

worked in favor of gold centers, such as the Bank, "which benefited from increased deposits without being required to redeem the claims of foreign central banks in gold."[60] In one instance, Governor Moreau strived to accumulate gold reserves by agreeing to pay the Bank of England £37 million in exchange for the release of reserves which roughly equaled £18.56 million. In a letter to Benjamin Strong, the Governor of the Federal Reserve Bank of New York, Moreau wrote that the Bank had abundant available funds (*abondantes disponibilités*) and was planning to consolidate a portion of its floating debt (*dette flottante*) by the following year.[61] All further changes in assets for the Bank of France were also to be in the form of gold rather than re-exchange for credits denominated in francs.[62] A writer in the *Commercial and Financial Chronicle* in April 1927 maintained that "[t]his augmentation of the French gold reserve is regarded as of pronounced significance," as reserves would have allowed Poincaré to stabilize the franc much sooner than previously thought.[63] Mouré further stipulated that efforts to raise the amount of bullion in circulation, and thereby part of an effort to stabilize the franc, were "the product not of a preconceived plan, but of renewed crisis."[64]

Under the Poincaré Stabilization Law, the Bank received redemption funds, equivalent to 5.93 billion francs, for its discount of Treasury bonds during World War I.[65] This law also effectively valued the franc at 1926 rates, resulting in a fivefold increase to take place in 1928: "*La nouvelle définition du franc multiplia par cinq la valeur en francs de cette encaisse*."[66] According to Professor Douglas Irwin, the Minister of Finance, Raymond Poincaré, "wanted to allow the franc to appreciate before formally establishing the peg to gold, while Governor Moreau wanted to resist the market pressures and keep the franc at the lower rate."[67]

An interesting observation from the balance sheet is the reserves held as gold far exceeded those held as silver. Simply stated, the Bank preferred gold, especially after the 1926 law allowed it to intervene on the open market. It increased its gold holdings from an estimated 5.55 billion francs at the end of 1925 to 36.62 billion by the end of 1928; over the same period, foreign-currency reserves increased from 0.56 billion francs to 13.9 billion. According to its

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[60] Mouré, "The Gold Standard Illusion," 72.

[61] Émile Moreau, "À Monsieur Benjamin Strong," *Federal Reserve Bank of St. Louis: Correspondence with France* (1 March 1927), 10, https://fraser.stlouisfed.org/files/docs/historical/frbny/strong/strong_1125_3_moreau_1926-1928.pdf; "Décret: Relatif à la Conversion d'une Partie de la Dette Flottante en Rente 5% Amortissables en 75 Ans," *La Banque de France: Histoire*, Article 1 (30 April 1928), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=193.

[62] Larry Neal, *A Concise History of International Finance: From Babylon to Bernanke* (Cambridge: Cambridge University Press, 2015), 242; Johnson, *Gold, France, and the Great Depression*, 136.

[63] *Commercial and Financial Chronicle* 124, No. 3224 (9 April 1927), 5, https://fraser.stlouisfed.org/title/1339/item/518404.

[64] Kenneth Mouré, "Undervaluing the Franc Poincaré," *The Economic History Review* 49, No. 1 (1996), 143.

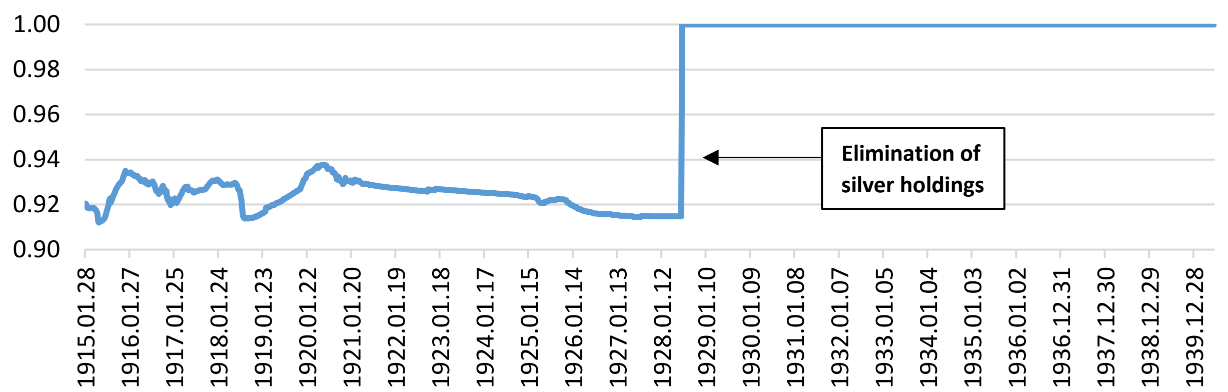
[65] A more thorough explanation is available in Bazot, Bordo, and Monnet's research in regards to arbitrage on gold premiums; Bazot, Bordo, and Monnet, "The Price of Stability," 10; Nicolas Barbaroux, "The Bank of France and the Open-Market Instrument: An Impossible Wedding?," *HAL Working Papers* 23 (2014), 6-7, https://halshs.archives-ouvertes.fr/halshs-01069286/file/1423.pdf.

[66] Jeanneney, "Monnaie et Mécanismes Monétaires en France de 1878 à 1939," 39.

[67] Irwin, "The French Gold Sink and the Great Deflation of 1929–32," 13.

balance sheets, the Bank also completely eliminated its holdings of silver by 1928.[68] J. A. M. de Sanchez, an economist at the French Commission in the United States, claimed silver was, "a material for minor coinage… legal tender for only small amounts."[69] While the Governors favored gold for its apparent stability, they perceived silver as less desirable after 1928. Because the 1928 law deemed the five-, 10-, and 20-franc notes non-legal tender from 1932 onwards, bimetallism was effectively abolished.[70]

Figure 6: Ratio of Gold Reserves/Metallic Reserves, 1915-1939



According to Sanchez, by 1928 confidence in the "French State" and the possibility of any successful fiscal reform had reached its lowest point in over a century.[71] The franc had returned to the gold standard after over a decade of inconvertibility.[72] Perhaps leaving the standard had been necessary as a wartime finance measure. But, as some government officials believed, there did not seem to be a need to continue such a currency regime. Poincaré considered that requiring the franc be tied to a stable metric would have helped to deter future currency speculation as well.[73] In contrast, the gold standard failed to deter unmitigated expansion of the money supply and augmented the severity of the next crisis.

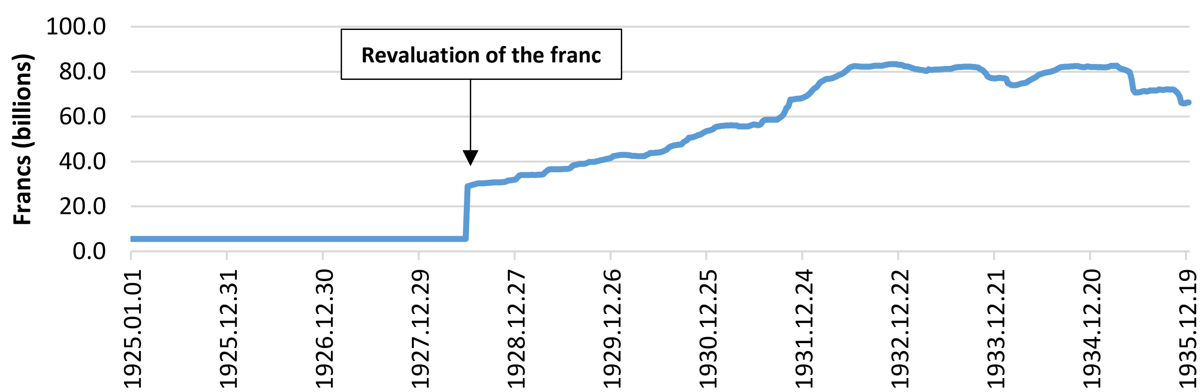
The Bank of France's Gold Reserves and the Great Depression

The Bank became a key agent in exacerbating, or perhaps even creating, the Great Depression. By one estimate, around 40 percent of worldwide deflation could have been attributed to the neutralization (non-monetization) of gold reserves by the central banks of the United States and of France.[74] According to Professor Barry Eichengreen, this practice among surplus

[68] *Situation Hebdomadaire de la Banque de France.*
[69] A. M. de Sanchez, "Stabilizing the Franc," *Foreign Affairs* (October 1928), https://www.foreignaffairs.com/articles/france/1928-10-01/stabilizing-franc.
[70] J. M. K., "The French Stabilisation Law," *The Economic Journal* 38, No. 151 (1928), 490.
[71] De Sanchez, "Stabilizing the Franc."
[72] "Loi: Loi Monétaire Modifiant la Valeur du Franc," *La Banque de France: Histoire*, Article 3 (25 June 1928), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=201.
[73] De Sanchez, "Stabilizing the Franc."
[74] Irwin, "The French Gold Sink and the Great Deflation of 1929–32," 37.

countries like France was "seen as a reflection of the desire to accumulate gold."[75] Since June 1928, the Bank had been accumulating both gold and foreign-currency reserves, mainly British pounds. An estimated 40 billion francs in sterling and an additional 12 billion in gold reserves had been accumulated over the previous two years.[76] (The *Federal Reserve Bulletin* of the period does remark, however, that the sharp rise in reserves may have been in part due to the re-categorization of the "Miscellaneous assets" into the "Purchases of gold, silver, and foreign exchange" item on the 23 June balance sheet.)[77] Professor Douglas Irwin has likewise noted that the Bank of France was a key player in the depression, as it greatly increased its share of world gold reserves and, more importantly, neutralized (failed to monetize) that accumulation.[78] The volume of world gold reserves continued to increase, while slower growth in gold production proved insufficient in keeping up with global demand. [79] Johnson has contended that this monetary policy directly caused global deflation in prices.[80] And Accominotti's research adds to Irwin and Johnson's claims, proposing a credibility test using spot- and foreign-exchange rates to show that, from 1929 onwards, the sterling became less credible as an international currency.[81] While Johnson's causality argument may leave room for debate, the significant deflationary pressures, coupled with Accominotti's insights into credibility, suggest the evident monetary crisis triggered by currency reserves. Only Eichengreen has come to the defense of the Bank in a qualified way, arguing that French sterilization can only be understood through the historical understanding of the "traumatic inflationary experience of the early 1920s."[82]

Figure 7: Nominal Gold Reserves, 1925-1935



Economists and historians often agree that the global return to the gold standard in the interwar period exacerbated, or at the very least contributed to, the severity of the Great

[75] Eichengreen, "The Bank of France and the Sterilization of Gold," 57.
[76] Mouré, "Undervaluing the Franc Poincaré," 137.
[77] *Federal Reserve Bulletin* (August 1928), 40, https://fraser.stlouisfed.org/content/?item_id=20680.
[78] Irwin, "The French Gold Sink and the Great Deflation of 1929–32," 4.
[79] Ibid., 8; Neal, *A Concise History of International Finance*, 242-243.
[80] Johnson, *Gold, France, and the Great Depression*, 147.
[81] Accominotti, "The Sterling Trap," 367.
[82] Eichengreen, "The Bank of France and the Sterilization of Gold," 79.

Depression.[83] A shortage of gold in circulation, compounded by the structural flaws and inefficiencies within the international financial system, led to a downward spiral in prices. Professors Eichengreen and Peter Temin have contended that the gold standard was itself one key factor in, not only contributing to worldwide deflation, but also prolonging any chance at recovery: "[t]he constraints of the gold-standard system hamstrung countries as they struggled to adapt during the 1920s to changes in the world economy."[84] An essential component of the Great Depression existed in the very framework of the global monetary system, the stability of which was dependent on international settlements. Further adding to Eichengreen and Temin's research, Professor Mouré has even maintained that the "[f]aith in the gold standard… slowed the development of modern central banking and monetary management in France."[85] His analysis argued that the gold standard "extended and accentuated deflationary pressures" by imposing the "burden of adjustment for international payments imbalances" on "deficit countries."[86] Perceptions of the Bank appeared to have just as much an effect on economic recovery as actual decisions of monetary affairs did. The secondary literature on the Great Depression expounds the role of the gold standard, and even more so on gold-reserve accumulation, in exacerbating a global crisis.[87]

The cover ratio represents one indicator of Bank performance during the years of the depression, showing the relationship between gold reserves and liquid liabilities (defined herein as notes and deposits). The ratio increased from an average of 11.9 percent in 1925 to 58.0 percent in 1930.[88] The Bank was a known exception among the industrial world's core and periphery countries for its higher-than-average reserve ratios.[89] (Other gold-hoarding European countries included Belgium and Switzerland, where gold stocks doubled and quadrupled over the same five-year period, respectively.[90]) Presumably, these reserves would have shielded the Bank from volatile fluctuations of exchange rates. The large influx in gold may have stemmed from France's growing presence in the world economy, as it had noticeably attracted foreign capital (*capitaux étrangers*) estimated at 500 million U.S. dollars by 1927.[91] Countries that re-joined the gold standard set stringent reserve requirements, or the minimum amount of gold needed to hold to meet demand.[92]

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[83] Ben Bernanke and Harold James, "The Gold Standard, Deflation, and Financial Crisis in the Great Depression: An International Comparison," in *Financial Markets and Financial Crises*, ed. R. Glenn Hubbard (Chicago: University of Chicago Press, 1991), 33, www.nber.org/chapters/c11482.pdf; Irwin, "The French Gold Sink and the Great Deflation of 1929–32," 4; Mouré, "The Gold Standard Illusion," 75; Mark Metzler, *Lever of Empire: The International Gold Standard and the Crisis of Liberalism in Prewar Japan* (Berkeley: University of California Press, 2006), 164-165; Mouré, "Undervaluing the Franc Poincaré," 138.

[84] Barry Eichengreen and Peter Temin, "The Gold Standard and the Great Depression," *National Bureau of Economic Research Working Papers* 6060 (1997), 1-2, www.nber.org/papers/w6060.pdf.

[85] Mouré, "The Gold Standard Illusion," 67.

[86] Mouré, "Undervaluing the Franc Poincaré," 137.

[87] Irwin, "The French Gold Sink and the Great Deflation of 1929–32," 5.

[88] Liquid liabilities includes all notes and deposits; *Situation Hebdomadaire de la Banque de France.*

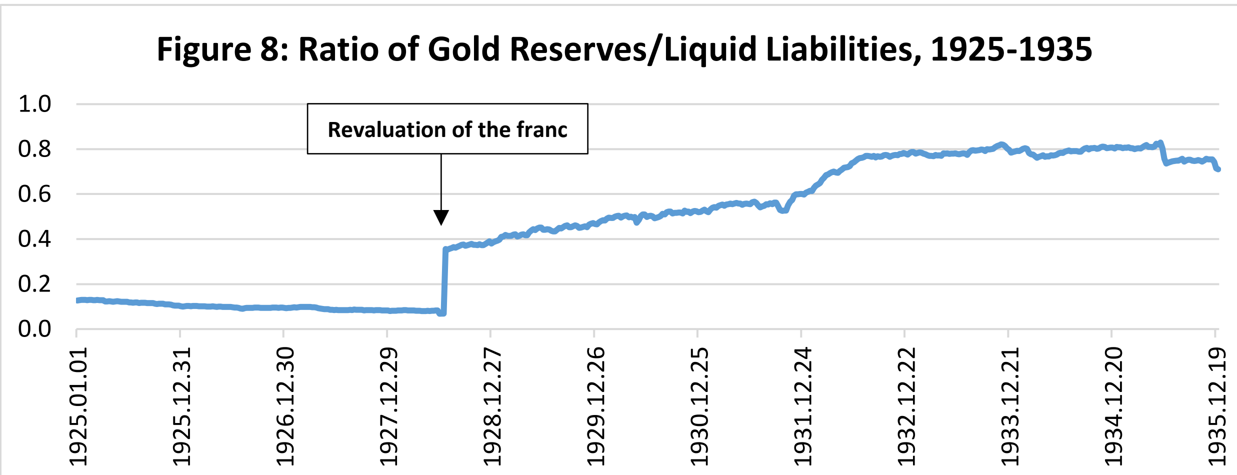
[89] Matthias Morys, "Monetary Policy under the Classical Gold Standard," 14.

[90] Richard N. Cooper, "Fettered to Gold? Economic Policy in the Interwar Period," *Journal of Economic Literature* 30, No. 4 (1992), 2125.

[91] Ahamed, *Lords of Finance*, 268; Jeanneney, "Monnaie et Mécanismes Monétaires en France de 1878 à 1939," 42.

[92] Irwin, "The French Gold Sink and the Great Deflation of 1929–32," 9.

Policymakers, including the Minister of Finance Reynaud, defended the Bank, arguing that the new francs were being issued at a rate similar to the increase in gold.[93] The balance sheets complicated this narrative, as a rising cover ratio implies rising gold reserves, decreasing liabilities, or both. Indeed, gold purchases had been notably increasing, and the aforementioned Poincaré Stabilization Law of 1928—which required maintenance of gold backing at least 35 percent of liabilities, including notes and demand deposits—worsened the crisis as it failed to mention any upper limit to gold-backed deposits.[94] Certainly the Bank needed to "increase its reserves to exceed that percentage in order to meet any foreign drain."[95] In failing to neutralize its inflows, compounded by the lack of controls on reserves, the Bank continued to hoard unsterilized gold and drive global deflation.



British officials demonstrated their concerns of France's gold hoarding at the League of Nations, citing an unbalanced distribution of reserves globally. Attempted adjustments in the Bank of England's interest rates failed to act as a successful corrective mechanism.[96] When it became clear that the League would not address their predicament, many bankers turned to the Bank for International Settlements for guidance.[97] Founded in 1930, the Bank for International Settlements (BIS) provided a channel for international cooperation among the world's central banks. Initially entrusted with administering the reparation payments under the Young Plan, the BIS gradually evolved to take on a larger role as the "central bankers' bank" of the world.[98] In its first *Annual Report*, the BIS outlined its agenda centered on facilitating "collaboration between Central Banks" and establishing "regular personal contact between Governors of many Central Banks," among them 21 central banks, 14 Japanese banks, and three commercial

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[93] Ibid., 25; Paul Reynaud, "France and Gold," *Foreign Affairs* (January 1933), https://www.foreignaffairs.com/articles/france/1933-01-01/france-and-gold.

[94] "Loi: Monétaire Modifiant la Valeur du Franc," Article 4; Irwin, "The French Gold Sink and the Great Deflation of 1929–32," 17.

[95] Mouré, "Undervaluing the Franc Poincaré," 150.

[96] Cooper, "Fettered to Gold?," 2127.

[97] Irwin, "The French Gold Sink and the Great Deflation of 1929–32," 26.

[98] Roger Auboin, "The Bank for International Settlements, 1930-1955," *Essays in International Finance* No. 22 (1955), 5-7, https://www.princeton.edu/~ies/IES_Essays/E22.pdf.

banks ("The American Group").[99] But the post-crisis years saw the BIS also struggle to overcome global deflation.

The Bank of France perhaps proved to be one of the greater blockers to global recovery, as its gold inflows continued to increase from 1929 to 1933. At its peak in June 1932, it held 28.3 percent of the world's gold stock, just shy of the United States at 30.4 percent.[100] Faced with "budgetary difficulties" and a "pronounced weakness of sterling," France's monetary authority began to suffer from severe losses in gold reserves by the end of 1933.[101] The BIS tried to act as an intermediary for these gold inflows and outflows, mitigating reserve oscillations associated with the Bank of France's monetary aspirations. Its failure to resolve the gold crisis may have been, in part, due to heavy reliance on U.S. isolationism. According to Professor Richard Cooper, the continual tensions over war debts, coupled with the "inward orientation" of the U.S., were leading factors in the economic downturn.[102] International cooperation, however much maintained by the BIS, failed to bring about swift recovery.

Figure 9: Bank of France Gold Reserves, 1930-1935"[103]

Year end	**Reserves (million francs)**	**Change from previous year**
1930	53,578	-
1931	68,863	+15,285 (+28.5 percent)
1932	83,017	+ 14,154 (+20.6 percent)
1933	77,098	- 5,919 (-7.1 percent)
1934	82,124	+ 5,026 (+6.5 percent)
1935	66,296	- 15,828 (-19.3 percent)

In the summer of 1934, Minister of Finance Reynaud again published an essay in *Foreign Affairs*, defending the Bank's deflationist policies during the Great Depression. As gold reserves stockpiled, so too did deposits at the Bank, which he claimed indicated that the self-regulating mechanisms of the gold standard had securely maintained a stable balance between reserves and assets: "The franc is the only stable currency that rests today on a gold reserve of any very considerable proportions."[104] Much more than silver or foreign financial assets, gold played an increasingly important role for the Bank, according to Reynaud. He reasoned that French desires to raise gold reserves were due, in part, to the historic "ghastly memories of inflation."[105] Was the increase in notes proportional to the increase in gold reserves?

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[99] "Bank for International Settlements: First Annual Report, For the Business Year Ended March 31, 1931," *Bank for International Settlements: Research & Publications* (1931), 7-14, https://www.bis.org/publ/arpdf/archive/ar1931_en.pdf.

[100] *Situation Hebdomadaire de la Banque de France.*

[101] "Bank for International Settlements: Sixth Annual Report, 1st April 1935 - 31st March 1936," *Bank for International Settlements: Research & Publications* (1936), 29, https://www.bis.org/publ/arpdf/archive/ar1936_en.pdf.

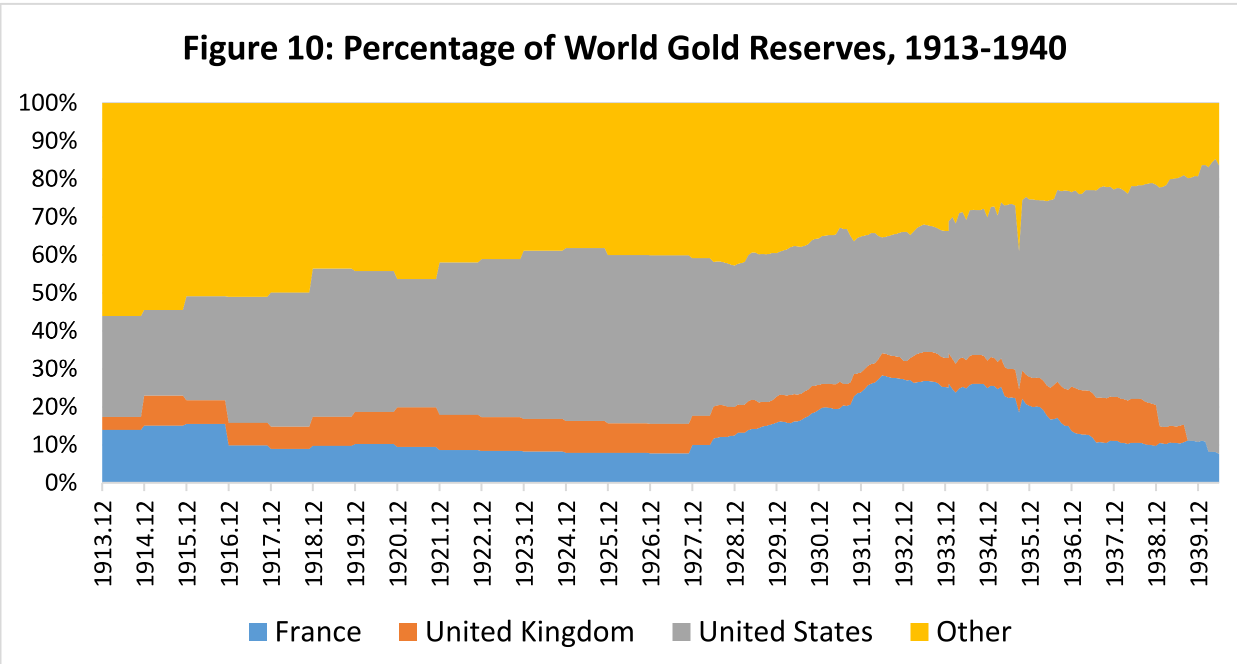
[102] Cooper, "Fettered to Gold?," 2127.

[103] "Bank for International Settlements: Sixth Annual Report," 28.

[104] Paul Reynaud, "The French Financial Outlook," *Foreign Affairs* (1 July 1934), https://www.foreignaffairs.com/articles/france/1934-07-01/french-financial-outlook.

[105] Ibid.

Between 1930 and 1932, gold reserves expanded from 53,578 million francs to 83,017 million, an increase of 55.0 percent.[106] France's percentage of world gold reserves increased from 19.2 percent to 27.3 percent over the same period.[107] All the while, notes only rose by 11.2 percent, thereby failing to support Reynaud's claim.[108] This fact, however, did not stop Reynaud from remarking that the economy of France, unlike that of the United States, was much more dependent on imported goods; any devaluation of the currency would have detrimental effects "[i]n the prices of raw materials and consequently in the prices of finished products."[109] Reynaud remained a steadfast economic liberal, suggesting that any future recovery could have been attributed to austerity programs: "the franc is beginning to glitter with a new lustre."[110]



Nationalization and Modernization

In 1936, the new French government, controlled by the socialist Popular Front, began discussing ideas for nationalizing the Bank. Prime Minister Léon Blum enacted a wide-range of labor reforms, such as establishing a 40-hour workweek and permitting collective bargaining. It was by popular will that the Popular Front was able to amass the political support to abandon

[106] *Situation Hebdomadaire de la Banque de France.*

[107] For monthly data prior to 06/1928: "Gold Reserves of Monetary Authorities and Governments," *Center for Financial Stability*. For monthly data on and after 06/1928, digitized by *Historical Financial Statistics*: Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics 1914-1941* (Washington: Board of Governors of the Federal Reserve System, 1943), 544-555.

[108] From 76,436,267,485 to 85,027,538,980 francs; *Situation hebdomadaire de la Banque de France.*

[109] Reynaud, "The French Financial Outlook."

[110] Ibid.

the gold standard.[111] At the same time, his cabinet bestowed upon the Bank the ability to create its own securities via a support fund (*fond de soutien des rentes*), which effectively enabled it to intervene in the market for long-term securities.[112] The fund later traded annuities (*rentes perpétuelles ou amortissables*) and treasury securities (*des valeurs du Trésor*) on the open market, whether short-, medium-, or long-term.[113] An October 1936 law also established an exchange stabilization fund (*fonds de stabilisation des changes*), initially entrusted with 10 billion francs to intervene on the foreign-exchange market.[114] This fund had to combat appreciations in the franc-dollar rate, while limiting the losses in gold holdings of the Bank itself.[115] Lastly, nationalization entailed eliminating the directorship and reorienting monetary policy around the slogan "*Ni déflation, ni dévaluation.*"[116] One economist and advisor to Blum, Georges Boris, envisioned a nationalized bank as one for the French people: "the country's leading financial institution should no longer serve private but national interests."[117]

Over a decade of nationalization, the socialist government attempted to continue its policy of maintaining high gold reserves. Professor Mouré maintained, "France steadfastly maintained the gold parity of the Poincaré franc, conceiving defense of the franc as a new battle of the Marne and insisting that the link to gold would prevent monetary chaos."[118] Yet the Bank struggled to restrict gold outflows as a result of increasing exports, according to the *Federal Reserve Bulletin* in April 1937.[119] As the institution itself depended heavily on gold, further stipulations were made to assure continued stability. The Bank was required, by the decree of 14 December 1936, to submit its weekly balance sheets (*des Situations Hebdomadaires et du Bilan*) directly to the Minister of Finance, as well as publish them in the *Journal Officiel de la République Française* (JORF).[120] It was also in this year that the franc was no longer nominally tied to any fixed rate of gold. According to the Monetary Law of 1936, which was later amended

[111] France agreed to maintain fixed exchange rates with the U.K. and the U.S. via the Tripartite Agreement of September 1936; Neal, *An Introduction to International Finance*, 245-248.

[112] Barbaroux, "The Bank of France and the Open-Market Instrument," 11.

[113] "Décret: Créant un Fonds de Soutien des Rentes et Valeurs du Trésor à Long et à Moyen Terme et Approuvant une Convention avec la Banque de France," *La Banque de France: Histoire*, Article 2 (22 July 1937), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=259.

[114] Julien Brault, "La Banque de France et les Transactions Internationales de la France des Années 1930 aux Années 1970," *Séminaire des Doctorants de la Mission Historique de la Banque de France*, 3, https://www.banque-france.fr/sites/default/files/la-banque-de-france-et-les-transactions_internationales-de-la-france-des-annees-1930-1970-julien-brault.pdf.

[115] Jeanneney, "Monnaie et Mécanismes Monétaires en France de 1878 à 1939," 46-47; "Loi: Loi Monétaire Fixant la Teneur d'Or pour un Franc, Mesures contre la Spéculation," *La Banque de France: Histoire*, Article 3 (1 October 1936), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=216.

[116] Mouré, "The Gold Standard Illusion," 79.

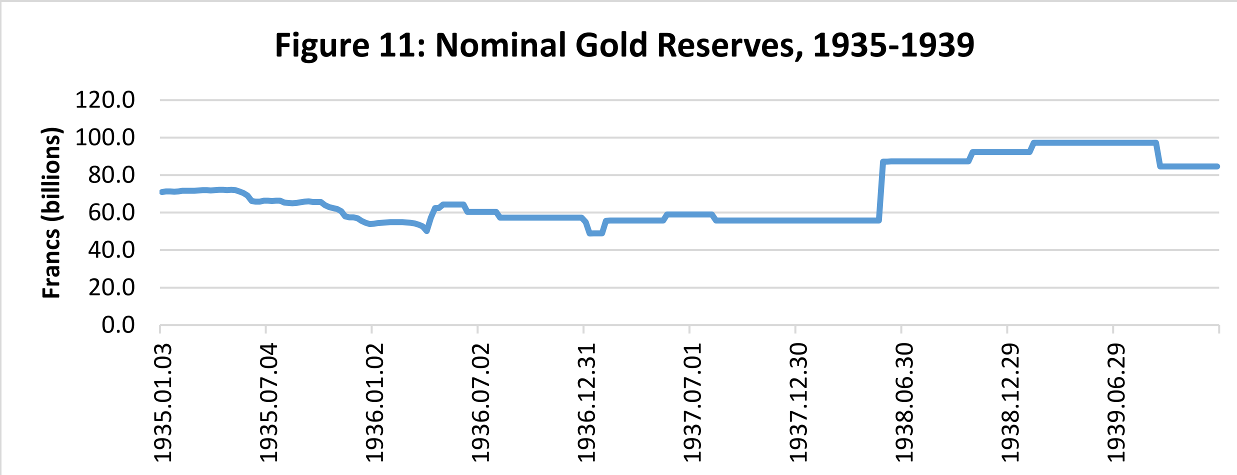
[117] Georges Boris, "Reforming the Bank of France," *Foreign Affairs* (October 1936), https://www.foreignaffairs.com/articles/france/1936-10-01/reforming-bank-france.

[118] Mouré, "The Gold Standard Illusion," 66.

[119] *Federal Reserve Bulletin* (April 1937), 29, https://fraser.stlouisfed.org/content/?item_id=20741.

[120] "Décret: Portant Codification des Textes Concernant la Banque de France," *La Banque de France: Histoire*, Article 153 (31 December 1936), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=247.

in December of that year, the Bank was no longer obligated to purchase gold at its branches, thereby effectively ending the second gold-standard era.[121]



The Bank's prerogatives further expanded on 17 June 1938 when it was permitted to engage in open-market operations on the money market (*marché monétaire*), thereby adopting the role of a more modern central bank:

> With the view of acting on the volume of credit and regulating the money market, the Bank of France is authorized, in addition to its operations listed in Article 106 of the decree of codification of 31 December 1936, to buy, on the free market (*le marché libre*), within the limits and the conditions set by the General Council, the short-term public negotiable instruments (*des effets négociables publics à court terme*) and private bills eligible for discount (*des effets privés admissibles à l'escompte*), and to resell without endorsement, the assets previously acquired. In no case may these operations be processed for the profit of the public treasury or the issuing authorities.[122]

Purchases made on the open market were, according to the BIS, confined to "short-term paper such as bankers' acceptances, *bons de la défense nationale*, the bills of certain public bodies," and other similar instruments.[123] Contemporary scholars have remarked that it was not until later in the twentieth century that the Bank of France became a "fully fledged" central bank."[124] The Governors were no longer tied to the pressure or permission of the Treasury for major

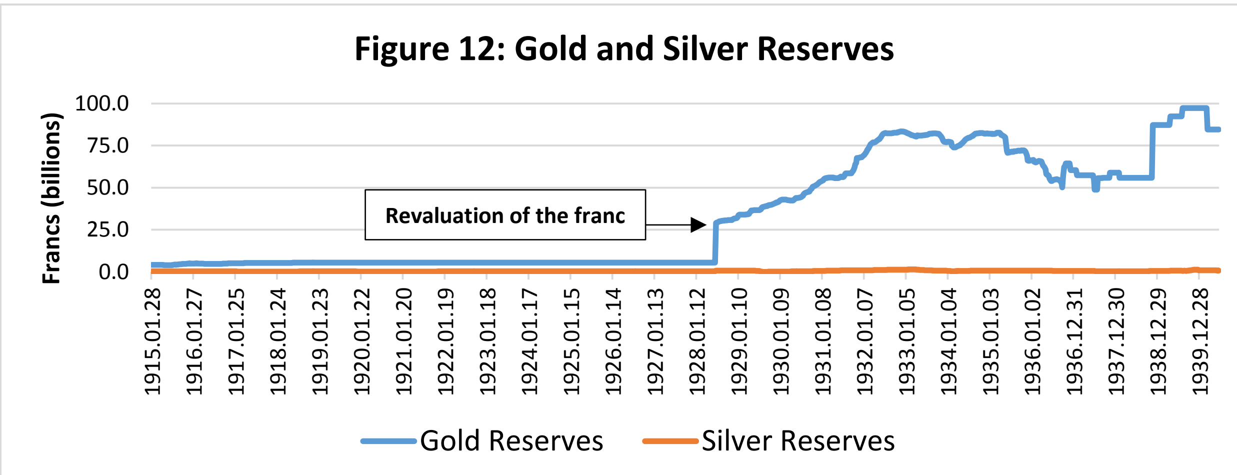
[121] Ibid., Article 175.
[122] "Décret: Relatif à l'Extension des Attributions de la Banque de France," *La Banque de France: Histoire*, Article 1 (17 June 1938), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=264; Some scholars have noted that, despite this prerogative, the bank rejected open-market operations throughout much of the interwar period; Barbaroux, "The Bank of France and the Open-Market Instrument," 23.
[123] "Bank for International Settlements: Ninth Annual Report, 1st April 1938 - 31st March 1939," *Bank for International Settlements: Research & Publications* (1939), 120, https://www.bis.org/publ/arpdf/archive/ar1939_en.pdf.
[124] Oliver Feiertag and Pablo Martín Aceña, "The Delayed Modernization of the Central Banks of France and Spain in the Twentieth Century," in *The Emergence of Modern Central Banking from 1918 to the Present*, eds. Carl-L. Holtfrerich, Jaime Reis, and Gianni Toniolo (New York: Routledge, 1999), 37.

decisions.[125] Further stipulations of the 1938 law included restrictions on the types of assets that were included in open-market purchases, such as Treasury bonds and national defense bonds, along with an 8 percent limit on gold reserves as a percentage of total assets to finance these operations.[126] As Professor Nicolas Barbaroux observed, the 1938 convention effectively only created "a light version of open-market operations."[127] The Governors were still reluctant to engage in purchases on the market, initially viewing them as highly inflationary. Indeed, they did not want to engage in any new methods of monetary-policy management out of fear of effectively admitting to the French public that prior policies had failed.[128] While the ability to buy short-term public assets on the money market had been in place since the previous decade, only by 1938 was the statute fully implemented and, over the years, seen as no longer "an inflationist and public debt instrument."[129]

By 1939, France found itself in the midst of another world war. On the day of Hitler's invasion of Poland, the Bank suspended Article 4 of the Law of 1928, giving it free rein to break its prior gold-to-liabilities limit.[130] In addition, the Governors ramped up efforts to repatriate capital via another stabilization fund (*fonds de stabilization*), an endeavor that had begun in the previous year. Both Governor Moreau and his successor, Clément Moret, shared concerns over exchange-rate risks, and so felt an insurance fund was necessary.[131] Yet efforts to keep pace with German rearmament proved costly. The BIS estimated the fund's value to be around US$3.3 billion by the end of August.[132] Moreover, the purchases of supplies from countries abroad still resulted in net negative flows for the Bank. Deputy Governor Charles Rist wrote in *Foreign Affairs* that the domestic budget was unbalanced even before the war had begun, estimating the deficit for 1938 to be around 30 billion francs.[133] Afraid of continual outflows, the Bank decided that any negotiations or transactions involving gold in France, including those involving the import and export of gold, was prohibited unless approved by the Bank itself.[134]

[125] Barbaroux, "The Bank of France and the Open-Market Instrument," 10.
[126] Ibid.
[127] Ibid., 6.
[128] Ibid., 29.
[129] Ibid., 3-4.
[130] "Décret: Relatif à des Dispositions d'Ordre Monétaire et Approuvant des Conventions Passées entre l'État et la Banque de France, et entre l'État et la Banque de l'Algérie," *La Banque de France*: Histoire, Article 4 (1 September 1939), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=270.
[131] Accominotti, "The Sterling Trap," 356-7.
[132] "Bank for International Settlements: Tenth Annual Report, 1st April 1939 - 31st March 1940," *Bank for International Settlements: Research & Publications* (1940), 26, https://www.bis.org/publ/arpdf/archive/ar1940_en.pdf.
[133] The gross national income of France remained below 250 billion francs in 1937, while the budget was at 85 billion; Charles Rist, "The Financial Situation of France Foreign Affairs," *Foreign Affairs* (July 1938), https://www.foreignaffairs.com/articles/france/1938-07-01/financial-situation-france.
[134] "Décret: Prohibant ou Réglementant en Temps de Guerre l'Exportation des Capitaux, des Opérations de Change et le Commerce de l'Or," *La Banque de France*: *Histoire*, Article 3 (9 September 1939), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=272.

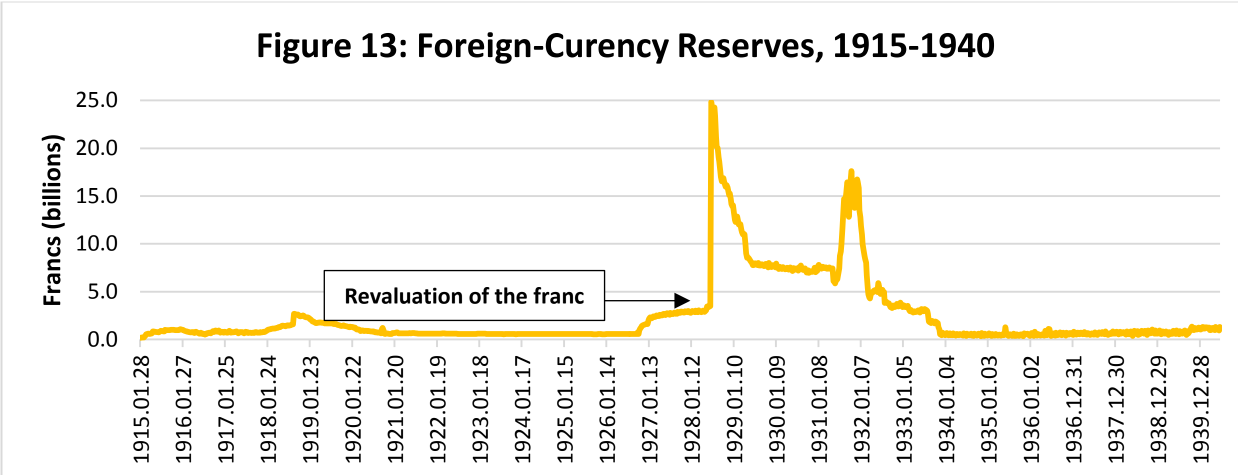
In preparation for the potential of war, the Bank stockpiled metallic reserves beginning in May 1938, a full two years before Germany's mobilization of troops against France in May 1940.[135] It also temporarily moved its headquarters to Saumur, then to Bordeaux, and later to Clermont-Ferrand.[136] Around 200 tonnes of gold reserves from France, as well as those from the National Bank of Belgium, were transported to Dakar in French West Africa. Fears of losing valuable gold reserves ran high among the administration. On 22 June 1940, French and German officers signed the armistice, which outlined the political and military terms of the French surrender. Economic concerns were addressed in later agreements, whereby the Bank fell under German control until the end of the war.[137] The Bank later re-emerged from the war as a new type of institution, rife with its own set of complexities, limitations, and financial innovations to shape future monetary policy.



[135] *Situation Hebdomadaire de la Banque de France.*

[136] "Décret: Premier Transfert du Siège de la Banque de France," *La Banque de France*: *Histoire*, Article 1 (9 June 1940), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=275; "Décret: Deuxième Transfert du Siège de la Banque de France," *La Banque de France*: *Histoire*, Article 1 (15 June 1940), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=276; "Décret: Ministère des Finances et du Commerce, 3ème Transfert du Siège de la Banque de France," *La Banque de France*: *Histoire*, Article 1 (27 June 1940), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=278.

[137] "Ordonnance des Autorités Militaires Allemandes: Relative aux Pouvoirs du Commissaire près la Banque de France," *La Banque de France: Histoire*, (23 July 1940), https://www.banque-france.fr/sites/default/files/arrete.pdf#page=280.



Conclusion

Decades of financial history provide a long-term view of the Bank's complex historical progression, as well as the reasoning behind ensuing proposals for international monetary systems later in the twentieth century. Many of the trials and tribulations for central-bank administration were not unique to the Bank of France, and indeed appear to demonstrate further implications for present-day institutions like the European Central Bank or the People's Bank of China. From the end of the classic gold standard era up to outbreak of World War II, the Bank was in a constant state of self-experimentation and re-evaluation. Its Governors faced constant pressure to maintain stability in world markets, all the while contending with industry and business pressures to keep inflation low. The Bank of France's active and outright policy of gold-reserve accumulation stemmed from contemporary views on gold in increasingly unstable markets, which was compounded by desires to hedge against unforeseeable risks.

In researching the gold, silver, and foreign currency reserves of the Bank, this research aims to contribute to the current literature on balance sheets and financial history. It seeks, not only to explicate a narrative of bankers and of economists, but also one of central banks and of institutions. Changes to the Bank's weekly balance sheets were inextricably linked to its monetary affairs. By providing added context to the works of Professors Accominotti, Eichengreen, Irwin, Mouré, and others, this essay aims to enhance the understanding of central banking as a historical practice. Future research on the Bank's history during and after World War II may also present additional insights: the nationalization of the Bank, initiated by the Socialist Party under Blum, in 1936; the monetary reforms of 1958 leading to the introduction of the *nouveau franc* in January 1960; and the state-imposed exchange controls and fiscal reform following the riots of May 1968 all remain viable topics for prospective researchers.[138]

Financial statements gauge a bank's willingness and ability to act. Central banks in the modern era are conferred with the monetary authority to behave in the best interests of their

[138] Michael D. Bordo, Owen F. Humpage, and Anna J. Schwartz, *Strained Relations: US Foreign-Exchange Operations and Monetary Policy in the Twentieth Century* (Chicago: University of Chicago Press, 2015), 184.

respective countries. Thus, the balance sheets of a bank prove vital in assessing the confluence of macroeconomic factors which affect and are affected by monetary policy. For example, the Federal Reserve Bank of the United States has maintained a myriad of policy tools, such as open-market operations and fractional-reserve banking, for setting its federal funds rate. Despite differences in the willingness to use such tools, the Bank of France retained such policies following the Great Depression. In another case, the central bank of the People's Republic of China has continued to stockpile both gold reserves and currency denominated in U.S. dollars. In a way, the Bank of France expanded its balance sheet under a similar presumption: that the maintenance of high reserves and foreign-denominated assets would have allowed it to achieve financial stability. The many different roles of the Bank of France have appeared to mirror the central banks of the present, both in its interest to hedge against economic catastrophes and its ability to adopt the necessary tools to respond.

Note on Data

An accompanying spreadsheet workbook contains all the referenced data, graphs and calculations associated with this paper. It includes the fully digitized weekly balance sheets of the Bank of France from mid-1898 to the end of 1973. These financial statements were aggregated by Professors Olivier Feiertag (Université de Rouen) and Michel Margairaz (Université Paris 1 Panthéon-Sorbonne). Additional spreadsheets and economic data were provided by Dr. Kurt Schuler (Center for Financial Stability).

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