

## A Classical Prelude, 1880–1914

During the interwar era, there was no shortage of cranks, traditionalists, revolutionaries, reactionaries – indeed, thinkers and policymakers of all kinds – offering cures for society’s ills. This was especially so in the monetary field, where proposals ranged from minor alterations to radical reconfigurations. Yet, to an astounding degree, this sweeping debate revolved around a shared reference point: the classical gold standard. A nebulous mixture of historical fact and economic abstraction, the classical gold standard represented an idea as much as it depicted the reality of the international monetary system in the decades before the First World War. As history, theory, and ideology, it permeated the discussions and influenced the decisions of the interwar period, from the near-universal desire to resurrect its tenets in the 1920s to the abandonment of many of those principles in the 1930s.<sup>1</sup> It was worshipped by some and reviled by others, but rarely a matter of indifference.

The classical gold standard is therefore the natural starting point for studying the monetary twists and turns of the Great Depression. What follows is a brief overview of the system’s history and theory.<sup>2</sup> Along the way, this chapter introduces some institutional details of British monetary policymaking, such as the relationship between the Treasury and the Bank of England (BoE) as well as regulations surrounding the BoE’s note issue, which play a crucial part in the interwar story. In addition, exploring the gold arbitrage mechanism in its classical form sets the stage for the 1930s,

<sup>1</sup> Eichengreen and Temin (2000) argue that the “mentality of the gold standard” conditioned policymakers’ response to the Great Depression and delayed appropriate action to combat the downturn.

<sup>2</sup> For in-depth studies on the classical gold standard, see Bordo and Schwartz (1984), Eichengreen (1992, chapter 2), and Eichengreen and Flandreau (1997).

when gold and exchange markets were the focal points of monetary action, the arenas in which countries battled one another and eventually – after much damage had been done – worked to promote the common good.

Beyond providing context, surveying the classical era sheds light on a recurrent theme throughout this book: Gold is not monolithic. There is not one way to be “on” gold, and there are many ways to be “off” it. Even during the classical gold standard, when reality came as close as ever to approximating the textbook model, no two countries had precisely the same monetary setup. Decades later, once the Great Depression had demolished the world’s monetary infrastructure, this multiplicity only intensified, and governments had to figure out how to operate in a fractious, balkanized system where every country treated gold differently.

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Today, the BoE is housed in a hulking structure that crams two massive stacks of columns, a narrow portico, a balcony, and a large pediment into its facade. While the building dates from the 1920s, the BoE’s history and traditions stretch back much further into the past. Founded in 1694, the BoE has occupied the same area on Threadneedle Street in the City of London since 1734. Gatekeepers clad in a centuries-old uniform – black trousers, pink tailcoat over red waistcoat, black top hat with gold trimming – continue to greet visitors. For ceremonial occasions, they don red capes and carry bamboo staffs. Other connections to the past are less visible from the outside but no less significant. Several floors below ground level, nine vaults store 400,000 bars of gold on behalf of clients around the world. These vaults are not only important to owners of the gold, which is worth some £200 billion, but they also hearken back to a time when the metal was the foundation of the monetary system, when gold was money and money was gold.<sup>3</sup>

Exactly when the classical gold standard began is to some degree a matter of definitional preference. Britain went on gold in 1717, and save for a disruption of several decades during the Napoleonic Wars, continued at the same parity into the twentieth century. Most scholars date the international system as starting around 1880, by which point all the major Western powers were on gold.<sup>4</sup> It ended, far more abruptly, with the outbreak of war in 1914. During its heyday, the vast majority of countries – from the core of Britain, France, Germany, and the United States to much of the rest of Europe, Latin

<sup>3</sup> Bank of England (2020). For a general history of the BoE, see Kynaston (2017).

<sup>4</sup> Eichengreen and Flandreau (1997, 3).

America, and elsewhere – made gold the cornerstone of their monetary systems. Not that any treaty brought this about.<sup>5</sup> Rather, the international gold standard developed from the individual decisions of countries to connect their currencies to the metal, decisions that no doubt took into account the rising benefits of joining as globalization proceeded apace.

There were several steps to establishing a gold standard.<sup>6</sup> A country needed to (1) define its currency in terms of a specified weight of gold, (2) coin gold and designate the coins legal tender, (3) enforce the interchangeability between gold and paper currency, and (4) allow the export and import of gold without restriction. These measures did not imply that gold changed hands with every transaction. Monetary authorities issued paper currency and deposit banking became more advanced, and hence gold coin tended to play a decreasing role in everyday life. However, the legal obligation to convert paper currency into gold on demand constrained the amount issued by authorities – often but not exclusively central banks – as they had to hold a specified reserve of gold to back up the promise.<sup>7</sup> In addition, even though gold was at the center, not all gold was considered the same. Gold coin, minted by the government, was legal tender, whereas gold bullion (non-coined gold, such as gold in bar form) was not. For this reason, bars were worth less than coins, but as bars were easier to handle in large amounts, gold operators preferred this form of the metal.

Britain's monetary system followed these general tenets. First, the government defined sterling in terms of gold. The Coinage Act of 1816 set one standard ounce of gold (11/12 fine) at £3. 17s. 10½d.<sup>8</sup>

<sup>5</sup> There were some attempts at international cooperation on monetary matters, including a series of conferences during the second half of the nineteenth century, as discussed in Reti (1998). In addition, the Latin Monetary Union, formed by treaty in 1865, harmonized the then bimetallic monetary systems of Belgium, France, Italy, Switzerland, and, several years later, Greece, as recounted in Einaudi (2001).

<sup>6</sup> This section draws on Officer (1996, chapter 2).

<sup>7</sup> The United States notably had no central bank until the creation of the Federal Reserve in 1913.

<sup>8</sup> Governments measured gold content differently. Gold could be measured in fine ounces, which referred to the total amount of pure gold, or standard ounces, which referred to gold of a certain percentage of fineness. However, standard ounces were not standardized: Different countries used different ratios of fineness. The British measured gold in terms of standard ounces that were defined as gold that was 11/12 fine (11 parts gold to 1 part alloy). Some other countries, including the United States, defined a standard ounce as 9/10 fine. Since standard ounces are not always the same, fine gold measurements are best for comparing gold content. There are 480 grains of fine gold per troy ounce. With one standard ounce of gold 11/12 fine equal to £3.89, one pound sterling was equivalent to 113 grains of fine gold (Officer 1996, part I).

Prior to decimalization in the 1970s, there were 12 pence (d) to the shilling (s) and 20 shillings to the pound (£), hence the value of a standard ounce of gold in decimal form was roughly £3.89 (though the pre-decimal practice will be used in this book). Second, Britain allowed the coinage of bullion and the melting of coins; the former permitted gold to become money and the latter simplified the export of gold. Both gold coins and BoE notes were legal tender. Third, the BoE bought and sold gold at fixed prices against its notes. The prices were statutorily set at £3. 17s. 9d. per standard ounce for buying bullion and £3. 17s. 10½d. for selling coin, respectively.<sup>9</sup> This spread between buying and selling prices, in part a function of minting costs, was a key component in market operators' calculations as to when gold arbitrage was profitable, as discussed below. Finally, gold movements and exchange transactions were unrestricted so that holders of sterling could receive gold in exchange no matter where they resided.

Just how much gold the BoE had to hold in reserve was set out by the Bank Charter Act of 1844. This Act divided the BoE, which was privately owned at the time and would remain so until its nationalization in 1946, into two departments: the Issue Department and the Banking Department. The Issue Department had responsibility for supplying notes to the public as well as exchanging gold for notes. The Act allowed the BoE to create notes against a fixed Fiduciary Issue, composed of (mostly government) securities, and then required all notes beyond that to be backed one-for-one with gold. For instance, at the beginning of 1914, the Fiduciary Issue was £18 million and the Issue Department held £36 million in gold, and hence the total note issue was £54 million. If the BoE wanted to print an additional £1,000 of notes, it would have needed an additional £1,000 of gold. Clearly, the larger the Fiduciary Issue relative to the size of the note issue, the more fragile the commitment to convert notes on demand appeared.<sup>10</sup> The Banking Department, on the other hand, was that part of the BoE that, as its name suggests, acted as banker for the government and other banks.<sup>11</sup>

These policies, both those specific to Britain and the many variations adopted by other countries, created domestic and international gold

<sup>9</sup> Technically, the law required the BoE to pay at least £3. 17s. 9d. per standard ounce for bullion. It could pay more and did so at times when it employed gold devices as described below (Sayers 1953, 132–33).

<sup>10</sup> Some countries implemented this fiduciary system, while others enacted percentage-based gold covers, which mandated that there should be enough gold to back up a set percentage of liabilities (Eichengreen and Flandreau 1997, 5).

<sup>11</sup> Meltzer (2003, chapter 2).

standards. The domestic system resulted from the first three pillars: The currency was defined in terms of gold, bullion could become legal coin (and vice versa), and gold could be obtained in exchange for paper currency. A specie standard, whereby specie (coin) is in circulation, exists when all three of these conditions are in operation. Specie standards were common during the classical era, with coin and currency notes circulating freely and interchangeably. A gold bullion standard, on the other hand, occurs when coinage of bullion is not allowed, and the monetary authority converts currency into gold for large amounts only, requiring customers to purchase heavy bars instead of coin. The currency still revolves around gold, but coin does not circulate widely, allowing the monetary authority to centralize the nation's gold and exert greater influence over its movements. Britain, France, and many other countries would switch to the gold bullion standard in the 1920s.

The international aspect derived from the above in conjunction with the unrestricted movement of gold. Because countries defined their currencies in terms of gold, each pair of currencies had a mint parity that expressed their relative gold values. For example, the United States fixed the dollar at 23.22 grains of fine gold, meaning that one ounce of fine gold was worth \$20.67. The mint parity between the dollar and the pound was then the ratio of the grains of gold in each currency. Since one pound sterling was worth 113 grains of fine gold, the mint parity was  $113/23.22 = \$4.8665$  per pound, conventionally reported as \$4.86. Equivalent calculations pinned down mint parities for all currencies tied to gold.

Importantly, exchange rates were not simply frozen at mint parities. Then as today, market trading – the balancing of supply and demand for each currency – determined exchange rates. But the mint parity acted as a fulcrum around which the exchange rate pivoted. The commitment to convert currency into gold and allow the import and export of gold kept the exchange rate close to parity because once the former drifted too far from the latter, market operators could capitalize on the gap and make a profit. For example, if sterling was trading significantly below parity, it was profitable to convert sterling into gold, sell the gold to the United States in exchange for dollars, and then use those dollars to purchase sterling: Arbitrageurs doing so would end up with more sterling than they began. As a result of these transactions, gold flowed from London to New York and the associated sale of dollars helped support the sterling exchange. Likewise, when sterling was well above parity, gold flowed from New York to London.

Arbitrageurs did not act the moment the exchange rate deviated from mint parity. After all, arbitrage was not riskless, nor was transporting a

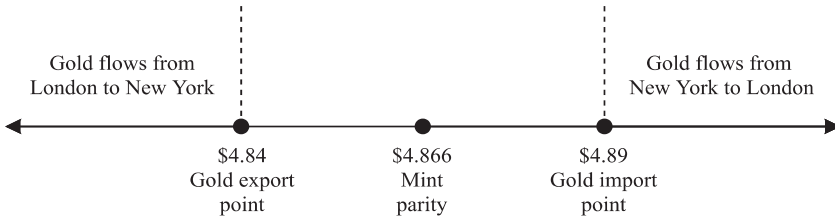


Figure 1.1 Sterling-dollar gold points.

heavy, valuable metal across vast distances free. There were many costs: insurance, brokerage, packing, freight, foregone interest, forward cover, just to name the most important. Monetary authorities also usually had a spread between buying and selling prices for gold. Because of these costs and spreads, arbitrage did not become profitable until there was a sufficient wedge between the exchange rate and mint parity.

The cutoffs for determining whether or not arbitrage transactions made sense were termed “gold points,” the gold export point signaling that exporting gold was profitable and the gold import point that importing it was. Each pair of nations had its own such points with each other, so that, for example, the pound could be at gold import point relative to the franc (gold flowing from Paris to London) but at gold export point relative to the dollar (gold flowing from London to New York). Moreover, the gold points were not set in stone. They depended on the constellation of forces determining the costs of shipping as well as the statutory prices of gold. During the classical era, exchange rate movements tended to be confined to tight bounds, with the sterling-dollar gold points roughly one-half of a percent on either side of parity (around \$4.84 and \$4.89) in the decade before the war.<sup>12</sup> Figure 1.1 illustrates the sterling-dollar gold points.

The notion of ships crisscrossing the oceans to move tons of gold from one vault to another might seem odd today, but these transfers were foundational to the system as it then existed.<sup>13</sup> Gold flows settled balance of payments deficits and helped re-equilibrate the global economy. A nation running a persistent current account deficit, without offsetting capital inflows, would have its exchange rate fall below gold export point since demand for foreign currency exceeded demand for home currency. With the exchange rate below gold export point, the country would

<sup>12</sup> Officer (1996, 174).

<sup>13</sup> See Chapter 2 for a discussion of the rising preference for earmarking gold to reduce shipments.

transfer gold (by way of arbitrage shipments) to surplus countries. This transfer reduced the payments deficit and, under what would later be called the “rules of the game,” signaled to policymakers the need to take steps that would work toward resolving the imbalance moving forward.<sup>14</sup> The country losing gold was to engage in monetary tightening, while the one gaining gold was to promote monetary expansion. Both of these actions helped to increase the price competitiveness of the deficit country and thus move the balance of payments back toward equilibrium.<sup>15</sup>

The policy interest rate was the usual lever for affecting credit conditions. For example, increasing the interest rate would help to attract short-term capital inflows or at least stanch outflows. A higher interest rate would also raise the cost of credit, acting as a force to reduce prices and thereby increase competitiveness. The BoE’s policy rate, known as Bank Rate, was the minimum rate at which it would rediscount paper. It fell under the BoE’s exclusive control, with the Treasury having no say in the decision process. “There has never been,” wrote a former Treasury official in the 1920s, “either in my time or previously, any ‘consultation’ between the Bank of England and the Treasury in any shape or form with regard to changes in bank rate. In prewar days a change in bank rate was no more regarded as the business of the Treasury than the colour which the Bank painted its front door.”<sup>16</sup> Responsibility for maintaining the gold standard rested squarely with the BoE, and its independence in carrying out this task went without question.

Gold flows in, lower the interest rate; gold flows out, raise the rate. The system seemed, to interwar observers at least, to have been automatic. So long as gold could move from country to country in response to market conditions and so long as central banks appropriately altered credit conditions, international balances would equilibrate and there would be little else to do. Monetary authorities simply had to maintain the gold parity. Achieving external equilibrium was thus the singular focus, even if the internal adjustments caused by a decrease or increase in credit might have been undesirable. In its fullest expression, then, the gold standard made domestic monetary conditions dependent on international ones.

<sup>14</sup> Keynes apparently coined the term in the 1920s (Bloomfield 1959, 47).

<sup>15</sup> In the mid-eighteenth century, David Hume described this process in his price-specie flow model (Eichengreen 1992, chapter 2).

<sup>16</sup> Quoted in Moggridge (1972, 160). Peden (2000, 12) writes that, in the prewar era, “the Governor of the Bank rarely had occasion to see the Chancellor—so much so that, when he did so during a financial crisis in 1914, his visit to the Treasury had to be concealed in case it caused further alarm.”

There are qualifications to this account, however, that, while not negating its thrust, nevertheless reveal a more nuanced system. The unspoken rules implied that countries were expected to refrain from sterilizing gold flows – that is, neutralizing them – through offsetting open market operations. In other words, a country losing gold needed to contract the money supply and a country gaining gold needed to expand it. But officials might not have wanted to deflate or inflate as required. If a central bank losing gold went into the market and purchased government bonds in the same amount, the domestic monetary base would not change and the adjustment process would not occur; likewise, if a central bank gaining gold went into the market and sold government bonds. In these cases, countries gaining gold would continue to gain it, countries losing gold would continue to lose it, and there would be no tendency for international imbalances to decrease. Sterilization appears to have occurred somewhat regularly, making the classical gold standard less automatic and self-equilibrating than the idea it represented.<sup>17</sup>

Sometimes authorities merely wanted to ease, rather than completely avoid, the adjustment process. For instance, if a country was losing gold, officials could manipulate the gold points to hasten the import of gold – such as by offering interest-free advances to gold importers – or impose difficulties on its export without having to implement as drastic an increase in interest rates as would otherwise be necessary. Britain, and especially France and Germany, resorted to these “gold devices,” which were an option because statutory regulations often left authorities wiggle room. The BoE, for example, could deal with foreign gold coins at whatever prices it desired; by altering these prices, it could impact the movement of gold between countries.<sup>18</sup> In addition, some central banks, notably those in France and Belgium, even had the option of converting their legal tender notes into silver coins instead of gold.<sup>19</sup>

The final qualification to the conventional story is the role of foreign exchange reserves. While Britain and the United States held the entirety of their reserves in gold, many other countries possessed considerable amounts of foreign exchange, whether as backing for their currencies or as supplemental resources. In 1913, foreign exchange accounted for almost 19 percent of reserves among thirty-five countries, including 21 percent for

<sup>17</sup> Bloomfield (1959, 47–51).

<sup>18</sup> Sayers (1953) details the BoE’s use of gold devices. See also Eichengreen (1992, 37).

<sup>19</sup> These countries were on the so-called limping gold standard. Eichengreen and Flandreau (1997, 5).



Switzerland and over 60 percent for Belgium.<sup>20</sup> To the degree that foreign exchange reserves substituted for gold, they helped economize on the use of the metal. They could also provide central banks with interest income, a not insignificant factor given that central banks were private institutions still concerned with profitability and there were storage and handling costs associated with gold.

Most important, foreign exchange reserves provided yet another means to affect the flow of gold. As Bloomfield (1959, 55) writes, they “enabled the central banks in question to intervene directly in the exchange market when it was desired to smooth out excessive and erratic fluctuations in exchange rates within the gold points and, in particular, to prevent rates from moving to the gold export point at which private arbitrage outflows of gold would have become profitable.” At the same time, foreign exchange reserves could increase the system’s vulnerability: If official holders of sterling, say, began to distrust it, they could sell their sterling assets and purchase other currencies or gold. Given the size of central bank balances, such portfolio adjustments could put immense pressure on the target currency. This potential for trouble did not materialize during the classical era, but it would become a colossal problem in the interwar years.

Notwithstanding these important caveats, the classical gold standard largely operated in accordance with the stylizations that so entranced – or exasperated – interwar observers. And while it was not without problems, it functioned reasonably well. Gold flows kept exchange rates in tight bounds. After a prolonged period of deflation in the last quarter of the nineteenth century, discoveries of the metal in South Africa along with improvements in mining provided a large enough output to keep pace with the growing global economy as the twentieth century began.<sup>21</sup> Money traversed the world at record levels. Long-term capital flows were large, as Britain and other European nations invested in developing economies. And short-term capital flows tended to be stabilizing because faith in exchange rate pegs appeared justified. There was a tacit understanding that authorities would suspend convertibility only in the event of a national emergency, such as war, and that once the crisis had passed, they would work toward returning to convertibility at the old parity, just as Britain had done after the Napoleonic wars. Indeed, the credibility of the parity structure was an essential element of the system’s success.<sup>22</sup>

<sup>20</sup> Lindert (1969, table 1).      <sup>21</sup> Friedman and Schwartz (1963, 90–91).

<sup>22</sup> Eichengreen (1992, chapter 2).

Sterling, and by implication the BoE, was at the center of this system, with the sterling bill serving as the predominant instrument for financing trade. As the economist John Maynard Keynes famously wrote, the BoE “could almost have claimed to be the conductor of the international orchestra,” its moves to ease or tighten credit setting the tempo for the rest of the world.<sup>23</sup> The United States, on the other hand, did not even have a central bank, and its at times dysfunctional monetary system spread financial turmoil abroad. But the creation of the Federal Reserve in 1913 seemed to augur a more responsible future for the rising economic power. For the most part, the system operated through the independent actions of monetary authorities rather than collaboration between them. Despite a few episodes of cooperation between European central banks during crises, there was no sustained development of relations.<sup>24</sup> There did not seem to be much need: Each country just had to keep its own house in order and, the thinking went, all would be well.

At its height, the classical gold standard appeared, particularly to the elite, as self-evidently the optimal setup, a system that respected traditional verities and represented a triumph of civilization. The ministers and officials responsible for guiding policy in the 1930s began their professional lives in this milieu. Montagu Norman was already a director of the BoE in 1907, an institution he would later lead for nearly a quarter of a century. Neville Chamberlain, the future chancellor, won his first election for the Birmingham City Council in 1911. Harry Siepmann graduated from Oxford in 1912, earned the third-highest score on the civil service exam, and entered the Treasury, his first step in becoming an expert in international monetary affairs.<sup>25</sup> Frederick Phillips and Frederick Leith-Ross – both in time Sir Frederick – were getting their feet wet at the Treasury as well.<sup>26</sup>

Also in London, the Frenchman Charles Cariguel was learning the foreign exchange trade at Société Générale’s office, a skill that would prove invaluable during his sixteen-year reign over the foreign department at the Banque de France.<sup>27</sup> In Paris, many of the politicians who would accept the seemingly cursed finance ministry portfolio were just starting their careers. Across the Atlantic, the future secretary of the

<sup>23</sup> Quoted in Eichengreen (1990, 289).

<sup>24</sup> Eichengreen (1992, chapter 2) argues that cooperation was essential to upholding the system; Flandreau (1997) considers it to have been far less important.

<sup>25</sup> “Mr. H. A. Siepmann,” *The Times* (London), September 17, 1963.

<sup>26</sup> Peden (2008); Middleton (2008).

<sup>27</sup> “City Men and Matters,” *Financial Times*, February 2, 1938.

Treasury, Henry Morgenthau, seemed destined for a more bucolic life in these last years of peace, buying an apple farm in upstate New York in 1913. There was little reason for any of these men or their colleagues to think twice about the gold standard. And then the world went to war.