

ENGLAND AND THE INTERNATIONAL MONETARY
SYSTEM OF THE NINETEENTH CENTURY

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ENGLAND AND THE INTERNATIONAL MONETARY ²⁸
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CHAPTER I

INTRODUCTION

The international gold standard of the nineteenth century is usually considered to have been a prime example of the laissez faire doctrine in action. In theory the standard was automatic, answerable only to those immutable laws of nature which controlled the whole of economic life. It served, according to theory, as a world-wide pricing mechanism which assured that prices in all the countries on the standard would adjust to its equilibrium prices.

Only recently have economists come to doubt that the standard was fully automatic. This change in thinking resulted primarily from the establishment of central monetary authorities which obviously possessed some discretionary power over the international mechanism. However, the principle of automaticity has not been completely discarded. It is still generally assumed that the central banks regulated policy in reference to their gold reserves. By inference then, the central banks were responding to commands from the standard, and adjustment was made "semi-automatically."

The original purpose of this thesis was to examine the validity of the principle of automaticity which has, to a greater or lesser extent, been attached to the international

mechanism of the nineteenth century. The fact that England occupied a dominant position in international affairs during this period suggested that perhaps she played a major role in the operation of the standard. However, a survey of the pertinent source material indicated that an entirely different approach would have to be used. For, it seemed, the international "gold" standard was largely a fiction.

It is generally recognized that the transfer of international payments was made primarily by sterling during the nineteenth century. By means of the sterling bill of exchange the great London money market financed not only the trade with Britain but the bulk of the trade between other nations as well. Several economists have emphasized in well-documented studies that control over credit policy was not evenly distributed among the several nations on the gold standard but was centralized in London. Furthermore, these studies indicate that the nucleus of the London money market was the Bank of England. Money rates charged in the City were determined by "Bank rate"--the Bank of England's discount rate. Due to its relationship with the financial firms in London, the Bank was the holder of the final gold reserve and the lender of last resort for not only Great Britain but the world as well.

Apparently, then, there were two international standards in the nineteenth century, the theoretical gold standard and the historical sterling standard. The primary interest of

this thesis is the latter, although the theoretical framework of the gold standard will also be examined. Because of its role in the London money market, particular attention will be given to the Bank of England. Since the Bank and the international standards were products of the evolutionary and revolutionary changes which occurred in Britain during the eighteenth and nineteenth centuries, an attempt will be made to examine them within their historical context.

Chapter II will examine the Industrial Revolution in England and its effect on world trade. The chapter will also survey the evolution of the gold standard in England and the sterling standard throughout the world. Chapter III will examine the evolution of the Bank of England and the London money market and the relationship between the two during the nineteenth century. Chapter IV will be concerned with the Bank's role in the international standard in theory and in practice and with the breakdown of the standard in 1914. Finally, Chapter V will attempt to draw together the findings of the thesis and will suggest some implications.

CHAPTER II

FREE TRADE AND THE GOLD STANDARD

Nineteenth-century England is usually considered to have been the paragon of economic liberalism. The literature of the period abounds with references to the virtues of free competitive enterprise and laissez faire. The shopkeeper, the merchant, the banker, and the industrialist all pictured themselves as being merely the interpreters of universal economic laws; passive agents guided by Adam Smith's "invisible hand." This image of a "natural order of things" was not restricted to the domestic economy but encompassed the entire world and formed the theoretical basis for Britain's international economic policy.

Free trade and the international gold standard were the two great pillars on which trade was based during the nineteenth century.¹ It is difficult to consider either to have been "natural" since both constituted breaks of great dimension with the British traditions of protection and silver. These changes were of course in keeping with the economic tenets of the day, but more was back of the break with tradition than the precepts of economic soothsayers. By 1832

¹Karl Polanyi, The Great Transformation (New York, 1944), p. 3.

control of Parliament had passed from the hands of the agricultural classes to the hands of the business and industrial classes. The latter now had the opportunity to complete reforms in which they had a vested interest just as the wealthy landowners had used the government to protect their interests when they were in control.

The Move to Free Trade

Richard Cobden, Britain's great apostle of free trade, stated the temper of the early nineteenth century thusly: "Commerce is the grand panacea, which, like a beneficent medical discovery, will serve to inoculate with the healthy and saving taste for civilization all the nations of the world."² Commercial statistics indicate that Cobden and Great Britain had every right to consider trade to be "the grand panacea." Sixty per cent of the total ocean-going tonnage of the world was under the British flag in 1850.³ Her position in 1846 in relation to the rest of Europe constituted a virtual monopoly in shipping: Britain's tonnage was 3.8 million tons as compared with 1.4 million tons for the rest of Europe combined, or about 73 per cent of the total.⁴ These statistics indicate Britain's position in the

²Quoted in David Thomson, England in the Nineteenth Century: 1815-1914 (Baltimore, 1950), p. 32.

³J. H. Clapham, An Economic History of Modern Britain: Free Trade and Steel, 1850-1886 (New York, 1932), II, 211.

⁴"Navigation Laws," The Edinburgh Review, LXXXVI (October, 1847), 280-281.

world economy when in 1849 she decided to "risk" repeal of the Navigation Laws.

Britain's enviable position in commerce resulted from her technological superiority--until well into the nineteenth century she was the only industrial nation. Described as a predominately self-sufficient, agricultural nation at the beginning of the eighteenth century,⁵ England was well into the Industrial Revolution by 1800. As a result of technological improvements in the major industries, production was greatly expanded. The output of iron almost doubled during the period from 1788 to 1796 due to the application of the steam engine to the blast furnace. A series of important inventions, culminating with the power loom, resulted in the output of cotton goods tripling in the fifteen-year period from 1788 to 1803.⁶ Cotton-goods exports increased in value from £355,060 in 1780 to £7,624,505 in 1802.⁷ The latter figure alone was greater than the value of exports of all commodities one hundred years earlier.⁸

Corresponding with the large increase in exports was an equally great increase in imports, especially in fibers and

⁵E. A. G. Robinson, "The Changing Structure of the British Economy," The Economic Journal, LXIV (September, 1954), 444-445.

⁶Arnold Toynbee, The Industrial Revolution (Boston, 1956), pp. 62-63.

⁷W. W. Rostow, The Stages of Economic Growth: A Non-Communist Manifesto (Cambridge, 1950), p. 54.

⁸Toynbee, p. 28.

unprocessed foods. Merchants and manufacturers were quick to realize that import duties were a bane rather than a blessing. Since they enjoyed a virtual monopoly on manufactured goods, the tariffs could offer them no protection but meant instead higher costs in the form of raw materials. In 1820, a group of London merchants presented a petition to the House of Commons asking for the removal of restrictions on trade, and in 1824 and 1825 substantial reductions and modifications were made in the tariff structure.⁹ By 1842, when the tariff was reduced on 750 items, duties had been practically abolished on raw materials, and those on manufactured goods changed to remove the burden from commerce and place it instead on the consumer.¹⁰

But the two greatest victories for the business groups remained to be achieved: the abolition of the Corn Laws and the Navigation Laws. The Corn Laws were especially onerous. In the first place, their purpose was to protect the agricultural interest from which the middle class had so recently wrested control of the government. In the second place, they theoretically resulted in higher food prices¹¹ which, in the Ricardian sense, meant higher wages. In 1839 the Anti-Corn

⁹Sir Charles Morgan-Webb, The Rise and Fall of the Gold Standard (New York, 1934), pp. 62-63.

¹⁰Thomson, p. 79.

¹¹Actually, repeal of the Corn Laws did not bring about either price stability or a noticeable decrease in bread prices. See Thomson, p. 81.

Law League was formed for the purpose of agitating for removal of the Laws, and in 1845 they were repealed.¹²

The Navigation Laws, intended to protect the English shipping interest, were firmly entrenched in English custom. No less an advocate of free trade than Adam Smith considered the Laws, even though they were "unfavorable" to trade, to be probably "...the wisest of all the commercial regulations of England."¹³ But by the middle of the nineteenth century Britain's commercial fleet had attained a position in world trade which approached monopoly. A contemporary observer noted, "There is something ludicrous in the idea of England fearing the competition of foreigners, upon that element, of which it has always been our boast that it is eminently our own."¹⁴ The Navigation Laws, in spite of their long usage, were unable to withstand the rising tide of laissez faire and the vested interest of the middle class, and in 1849 they, too, were repealed.

Yet another factor served as a catalyst in the movement to free trade: the incompatibility of protection and the monetary standard which required the countries trading with England to pay their debit balances in gold. Since England

¹²Ibid., pp. 79-81.

¹³Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations, edited by Edwin Cannan (New York, 1937), p. 431.

¹⁴"Navigation Laws," p. 280.

was a creditor nation, many of the nations trading with her soon found themselves short of the metal. Britain's prosperity was contingent on exporting to these countries, and in the absence of gold the only way they could finance English goods was through trade.¹⁵ Therefore, the British soon found import tariffs a luxury they could not afford. Sir Charles Morgan-Webb states the case very well: "Either the sterling standard or Protection had to go."¹⁶ In the end it was protection that went.

No other nation liberalized trade during the nineteenth century to the extent that England did. For most of the century the trade restrictions of other countries did not greatly affect England. For the Industrial Revolution had given her what no other nation would have for many years: the industrial techniques to produce quality goods on a mass production basis. During the years 1870 to 1874 England produced over half of the world's pig iron and nearly two thirds of the world's coal. In the early 1880's England had 54 per cent of the world's spinning capacity. During the same period she accounted for approximately 64 per cent of the total machinery exports of the four industrial nations. And in 1890, 80 per cent of the newly-constructed ships came from British shipyards.¹⁷ The value of her exports increased accordingly.

¹⁵Morgan-Webb, pp. 56-57.

¹⁶Ibid., p. 63.

¹⁷G. P. Jones and A. G. Pool, A Hundred Years of Development in Great Britain (London, 1940), pp. 186-190.

They were, in millions of pounds; 7.0 in 1700, 14.5 in 1760, 50.0 in 1815, and 200.0 in 1870.¹⁸ In 1870 England's volume of trade was still greater than the other European nations combined and four times that of the United States.¹⁹

Free trade was not adopted out of blind loyalty to the economic dogma of laissez faire. It resulted instead from the realization that, as Thomson so aptly states it, "Free competition is of most value to those who need not fear any competition."²⁰ In short, free trade was a pragmatic experiment, and a successful one, on the part of England. Arnold Toynbee recognized this as long ago as 1884 when he wrote that, while it may be a sound policy at certain stages of economic development, "...It is open to any one to say that free trade is only good under certain conditions."²¹ It is interesting to note that commercial and industrial interests came to recognize this, even if economic philosophers did not. For toward the end of the century, when European and American industry began to rival England's, influential persons began to advocate "fair trade"²²--an euphemism for restrictive tariffs. The government had been used to impose and enforce free trade; it would soon be used to repeal it.

¹⁸The figures for 1700 and 1760 are from Toynbee, p. 28; those for 1815 and 1870 are from Thomson, p. 83.

¹⁹Thomson, pp. 100-101.

²⁰Ibid., p. 27.

²¹Toynbee, p. 5.

²²Thomson, p. 194.

The Evolution of the Gold Standard

Throughout history gold has commanded an appeal which no other metal can boast. Primitive man, fascinated by its unusual properties, endowed it with magical qualities.²³ The progenitors of modern chemistry were preoccupied with gold, considering it in most cases to be the only perfect metal toward which other metals were developing. Western, Chinese, and Hindu alchemists all made attempts at creating gold through various chemical experiments.²⁴ The present-day inclination is to dismiss the efforts of the alchemists as being the actions of ignorant men. While it is true that attempts are no longer made to convert lead into gold, much of the mysticism surrounding gold remains. How else can the modern-day assertions that only gold (or possibly silver) can confer value upon a monetary unit be explained?

Gold has been used intermittently as a medium of exchange since early in history. It ceased to serve in that capacity in late antiquity when the mines were exhausted and the accumulated stocks were dispersed.²⁵ Gold appeared again in the Italian mercantile cities of Florence and Venice, but served only as a merchant's medium. In fact, wherever gold

²³Lewis Mumford, Technics and Civilization (New York, 1934), p. 66.

²⁴Stephen F. Mason, A History of the Sciences, rev. ed. (New York, 1962), pp. 66, 77, 93.

²⁵Joseph Kitchin, "Gold," Encyclopaedia of the Social Sciences, VI (New York, 1931), 689.

appeared as money, it was used almost solely by merchants until modern times. Historically, the principal medium of exchange has been silver.²⁶

Although gold coins were issued regularly in England after the middle of the fourteenth century, they were little used except in trade until the eighteenth century. There was an excellent reason why they were used only in trade. The smallest gold coin issued, the penny, represented at least a week's wages for the average laborer. Neither he nor the citizens of the self-supporting agricultural towns had any use for a coin of such value.²⁷ "The gold coins were merely 'passengers,' issued for the convenience of the wealthy and to facilitate the wholesale transactions of merchants."²⁸

The ascendancy of gold in the eighteenth century was not due to any inherent superiority of that metal. It was due instead to the inability of silver to finance all the increased economic activity which was occurring on both the domestic and the international level. During most of the period gold was overvalued at the mint, making it of more value in internal than in external trade. As a result gold was coined and remained in England for domestic purposes and

²⁶R. G. Hawtrey, The Gold Standard in Theory and Practice, 2nd ed. (London, 1931), p. 59.

²⁷A. E. Feavearyear, The Pound Sterling: A History of English Money (London, 1931), pp. 19-22.

²⁸Morgan-Webb, p. 29.

silver was shipped abroad. According to Feavearyear, "For all practical purposes the Mint was closed to the coinage of silver during the greater part of the eighteenth century."²⁹ From 1695 to 1740 the gold coins minted were valued at over £17,000,000 while the silver coins minted amounted to less than £1,000,000.³⁰

The silver coinage, which Morgan-Webb considers to have been "...the finest silver currency in Europe" following Sir Isaac Newton's recoinage in 1698,³¹ soon became badly depreciated. The full-weight coins were exported, leaving only clipped and under-weight pieces for circulation in England. By 1760 the crowns and half-crowns had disappeared from circulation. In 1774 the silver coinage, which had been valued at £5,000,000 in 1717, had decreased in face value to less than £2,000,000, and because of its condition was actually worth much less.³²

As Feavearyear points out, "England did not establish the gold standard by any conscious and deliberate act, and it is doubtful whether anyone foresaw that it would establish itself."³³ Instead, gold was forced into service because silver was not available. When Newton retired as Director of the Mint, silver lost its last great advocate. Conduitt, who replaced him, was content to "let the best metal win."

²⁹Feavearyear, p. 146.

³⁰Ibid.

³¹Morgan-Webb, p. 31.

³²Ibid., p. 38.

³³Feavearyear, p. 142.

The resulting "battle of the standards," which occupied the first three-quarters of the eighteenth century, saw the end of the silver standard and the beginning of a de facto gold standard. In 1774 silver was restricted as legal tender for payments of twenty-five pounds or less.³⁴

From 1797 until 1823 England was on a paper standard. Private bank notes were redeemable in Bank of England notes which were legal tender but could not be exchanged for specie. When the country began preparing for resumption of payments, it turned to gold for silver was completely discredited and "a byword for inefficiency."³⁵ In 1816 the Coinage Act was passed making gold the standard metal and limiting silver as legal tender for payments up to two pounds only. Peel's Act of 1819 provided for free import and export of gold. It was established that the Bank of England would buy gold in unlimited quantities at £3 17s. 9d. per ounce and would sell in unlimited quantities at £3 17s. 10 1/2 d., although this provision was not made official until the Bank Charter Act of 1844.³⁶

Through these measures England established the basis for a monetary standard which it was to dominate throughout

³⁴Morgan-Webb, p. 38.

³⁵Ibid., p. 45.

³⁶Feavearyear, pp. 206, 254. In practice the Bank often entered the market as a bidder for bullion at a price above £3 17s. 9d. It seldom bid as high as £3 17s. 10d., and, of course, £3 17s. 10 1/2 d. was the upper limit. See W. Edward Beach, British International Gold Movements and Banking Policy: 1881-1913 (Cambridge, 1935), p. 44.

the nineteenth century. When in the last quarter of the century the other major countries of the world found it necessary to adopt the gold standard, they discovered they could do so only under conditions allowed by England. For with the Bank of England standing ready to buy and sell gold in unlimited quantities at a fixed price, the world market price was established. As a result the bullion market in London became the predominant one. Most of the newly-mined gold was sent directly to refiners there and then sold through the London bullion dealers.³⁷ In order for foreign countries to purchase gold they had to remit in the currency demanded, which was sterling since the market was in London. In this manner the currencies of all the countries on the gold standard were fixed in terms of sterling.³⁸

For the purpose of this study the international standard covers the period from about 1819 to 1914. But the "international gold standard," as it is usually defined, was in operation for less than twenty years. The last two major countries to join, Russia and Japan, did not do so until 1897; and, with the outbreak of the First World War in 1914, the standard was abandoned. Although attempts were made to reestablish the standard following the War, it would never again be the same for the world of the nineteenth century no

³⁷Beach, p. 44.

³⁸J. B. Condliffe, The Commerce of Nations (New York, 1950), p. 363.

longer existed. England was now a debtor nation and therefore in no position to reassume leadership of the standard.³⁹ But the basic change, which had its roots in the nineteenth century, was in the structure of economic and political power. As this thesis will attempt to show, international power had been centralized in England during most of the nineteenth century. The War was only the final event in a chain of events which broke down and diffused that power.

The Sterling Standard

In theory the international standard of the nineteenth century was not a pure gold standard; "rather it was a series of credit systems based on gold and linked with each other by fixed exchange rates."⁴⁰ In this system the primary function of gold was to support and determine the superstructure of credit. This system will be examined in more detail in Chapter IV.

The system of international payments, as distinct from the theoretical international gold standard, was centralized in London. The pound sterling served as the medium of international trade and short-term settlement of accounts. The purpose of this sub-chapter is to examine the manner in which sterling served as the international currency and the extent

³⁹"A debtor country can have little or no influence on the management of an international currency. It is the creditor countries which alone can take part in its active operation." Morgan-Webb, p. 75.

⁴⁰Condliffe, p. 365.

to which it acted in that capacity. The control and management of the international currency will be the subject of the next two chapters.

Sterling gained its position as the international currency through the bill of exchange drawn on London and as a direct result of England's dominant position in foreign commerce. "The position attained by London in the nineteenth century as an international financial centre grew out of its business as a mercantile centre."⁴¹ The Industrial Revolution had made England the world's major importer and exporter and London the hub of international trade. According to Hawtrey, "The bill on London furnished the means by which traders all over the world...could both receive and make payments at the marketing centre."⁴²

Although British merchants had utilized the bill of exchange since the thirteenth century,⁴³ until the nineteenth century it had usually taken the classic form of an order to pay drawn by the exporter on his foreign importer. In the course of the nineteenth century, however, it became customary for exporters to draw bills on the large merchant bankers of London. These firms were familiar with both the international markets and the credit standings of importers throughout the world.⁴⁴ Many of these firms soon discontinued their trading

⁴¹R. G. Hawtrey, Currency and Credit, 4th ed. (London, 1950), p. 133.

⁴²Ibid., p. 135.

⁴³Feavearyear, p. 91.

⁴⁴Hawtrey, Currency and Credit, pp. 134-135.

operations and concentrated instead on financing trade. They "accepted" or endorsed bills of exchange drawn on them and discounted the bills in the London money market. After they were discounted the bills became an important component of the international credit superstructure.

The bill of exchange drawn on London was not restricted to English trade but was used to finance trade which never touched the shores of the British Empire. Morgan-Webb estimates that, at the height of its influence in the nineteenth century, the sterling bill financed between 80 and 90 per cent of all the trade between nations.⁴⁵ The volume of bills accepted each year in London increased from £349,300,000 in 1859-60 to £587,100,000 in 1870-71.⁴⁶ Condliffe estimates that in 1914 the outstanding bills on London which were due within ninety days amounted to £350,000,000.⁴⁷ As early as 1858 a director of the Bank of England could testify before a committee of the Commons that "a man in Boston cannot buy...tea in Canton without getting a credit from Messrs Matheson or Messrs Baring.... English credit supplies the capital of almost the whole world."⁴⁸

⁴⁵Morgan-Webb, p. 54.

⁴⁶Leland Hamilton Jenks, The Migration of British Capital to 1875 (New York, 1927), p. 245.

⁴⁷Condliffe, p. 355.

⁴⁸From the testimony of T. M. Weguelin before the Select Committee on the Bank Acts, House of Commons, 1857-58, cited in Sir John Clapham, The Bank of England (New York, 1945), II, 237.

Because it was the currency recognized by merchants all over the world, sterling became the medium used to settle international accounts. Foreign banks which received bills of exchange drawn on London maintained sterling accounts in London banks. If needed, short-term loans were available through the London money market to meet temporary deficit balances.⁴⁹ According to Brown, "The combined London banking system, of which the London Clearing House in a narrow alley off Lombard Street was the final settling pivot, acted as one bank for a customer-neighborhood of bankers that comprised not only the British island but the whole world."⁵⁰

Under this arrangement gold flows were necessary only when a prolonged and distinct disequilibrium existed. In such cases the gaining country would convert some of its sterling holdings into gold and the losing country would be forced to use gold to settle its balance. The transfer was not made directly between the two countries because "foreign countries had no...facilities for obtaining gold from one another."⁵¹ Since the transfers were made in London, and since the primary bullion market was there, foreign countries usually shipped their excess gold to

⁴⁹Morgan-Webb, p. 74.

⁵⁰William Adams Brown, Jr., The International Gold Standard Reinterpreted: 1914-1934 (New York, 1940), I, xvi.

⁵¹R. G. Hawtrey, The Art of Central Banking (London, 1932), p. 203.

London and convert it into interest-bearing assets.⁵² In this manner gold flows were kept to a minimum. According to Morgan-Webb, "Gold movements declined till they represented little more than the distribution of the newly mined gold to the countries most in need of it."⁵³

Even during that period when most of the major countries of the world were on gold standards, the international standard was based on the pound sterling. The sterling standard was established quite a few years before gold was adopted world-wide at the end of the nineteenth century. Williams states that "England was on the gold standard and the rest of the world was on the sterling standard."⁵⁴ But on the international level the price of gold for all practical purposes was also fixed in terms of sterling. Perhaps it would be more accurate, then, to say that gold was on the sterling standard.

How, then, did the international "gold" standard manage to win such a company of admiring followers? At least part of its popularity is probably due to that human propensity to invest gold with certain "mystic potencies." However, it must be admitted that the set of arrangements which passed for the standard functioned very effectively. In praising

⁵²Ibid.

⁵³Morgan-Webb, p. 74.

⁵⁴John H. Williams, "Monetary Stabilization from an International Point of View," American Economic Review, XXV, supplement (1935), 161.

the operation of the standard, Polk writes, "In the second half of the century times were so stable and prosperous that poets grew melancholy with longing for the disconcerting days of the past."⁵⁵ This thesis will attempt to demonstrate that the stability was due not to gold but to the successful management of the standard.

⁵⁵Judd Polk, Sterling: Its Meaning in World Finance (New York, 1956), p. 32.

CHAPTER III

THE BANK OF ENGLAND AND THE LONDON MONEY MARKET

The London money market and the Bank of England were organized at about the same time and grew up together. Jenks states that the money market, in its modern structural form, "...may be said to have come over the Channel with William of Orange."¹ The Bank was formed in 1694 under a charter granted by William and Mary. The prominent characteristic in the evolution of both was the relatively short period of time which elapsed before both were dominant in the world economy. Their rapid growth had its foundation in the profound technological changes which occurred in England in the eighteenth century. It was quickened somewhat by the wars of Napoleon which destroyed the financial institutions on the continent while leaving London stronger than ever. As the only industrial nation England was logically the world's marketing center. And because she was the world's marketing center, England became the leader in international finance.

The Evolution of the London Money Market

A money market was first organized in London by Italian merchants, the Lombards, from whom the main financial street in London gained its name. According to Feavearyear, "They

¹Jenks, p. 10.

financed the wars of Edward I, farmed his customs and controlled his exchanges...."² In spite of numerous attempts to banish them, including efforts by the House of Commons,³ the Lombards remained at their exchange tables. The English monarchy became so dependent on them that when, in 1300, they were charged with counterfeiting, they were given royal protection.⁴ It was not until the sixteenth century that English capital, gained from an increase in trade, began to replace that of the Lombards.⁵ Even then London remained a second-class money market behind the continental centers at Lyons, Antwerp, Frankfurt, and Venice.⁶

Even in the sixteenth and early seventeenth century many of the merchants and landowners refused to trust their cash to the goldsmiths, then the principal component of the London money market. Instead they employed professional scribes or cofferers to keep their accounts and to receive and make payments. The scribes and cofferers were not bankers but merely bookkeepers: money placed in their charge remained there and was not loaned to persons seeking funds.⁷

During the Commonwealth period the merchants and landowners began leaving their cash in the hands of the London

²Feavearyear, p. 24.

³R. H. Tawney, Religion and the Rise of Capitalism (New York, 1959), p. 51.

⁴Feavearyear, p. 24.

⁵Tawney, p. 117.

⁶Ibid., p. 69.

⁷Feavearyear, p. 92.

goldsmiths and drawing interest on it.⁸ At first the goldsmiths were not involved in banking in its modern sense, that is, in the lending of money. They merely sorted the coins left in their charge, removed the heavier ones, and melted them down for export. Feavearyear reports that "they became interested in loaning money only when the government began to borrow."⁹ In 1656 Cromwell borrowed £150,000 in silver from the goldsmiths, a transaction which Feavearyear considers to have been the first of its kind.¹⁰

By 1656, when war was declared with Holland, many of the goldsmiths were deeply involved in government finance. For some of them this constituted their only line of activity, except the old operation of sorting and perhaps clipping the coins they received. Since they were forced to pay relatively high rates of interest to the merchants and landowners, the rate they charged the government was usually around 10 per cent.¹¹ When the government raided the Exchequer in 1672, this brand of goldsmith became insolvent. The new group which emerged disassociated itself from the King's business and concentrated instead on financing private industry and commerce and developing modern techniques of deposit banking.

⁸According to Clapham, "6 per cent was a normal rate." Clapham, The Bank of England, I, 10.

⁹Feavearyear, p. 96.

¹⁰Ibid.

¹¹Ibid., p. 103. However, a rate of 40 per cent was not unusual. See Walter W. Haines, Money, Prices, and Policy (New York, 1961), p. 55.

Although they had been forced to pay as much as 6 per cent interest on borrowed money as late as 1672, "...soon after the Revolution merchants trusted the goldsmiths for the mere convenience of using paper money, and paid and received goldsmiths' notes freely and without interest."¹² According to Clapham, by the end of the eighteenth century, "...the goldsmith bankers of London were doing every kind of banking business."¹³

During the eighteenth century the London money market began to rival the financial cities on the continent. The Dutch had ruled the commercial world throughout the sixteenth and most of the seventeenth centuries. However, the war with England had crippled them, and by the middle of the eighteenth century, the money market at Amsterdam was in deep trouble.¹⁴ The Napoleonic War and the fall of Amsterdam in 1795 applied the coup de grace. As Napoleon's army flooded the continent, many of the leading merchants and financiers fled to London, adding experience and knowledge to the growing City.¹⁵

The Evolution of the Bank of England

The idea of a chartered bank had been debated in England long before the Bank of England was formed. The financial and mercantile community, greatly impressed by the Bank of

¹²Feavearyear, p. 107.

¹³Clapham, The Bank of England, I, 10.

¹⁴Ibid., 254.

¹⁵Condliffe, p. 148.

Amsterdam, was in general agreement that such a bank should be controlled by private interest. The irresponsibility of the monarchs in financial affairs helped to convince them that a government-controlled bank would be dangerous.¹⁶ At the time the Bank was formed and for many years to come the concept of central banking was completely unknown. The Bank was to assume this responsibility only through a long evolutionary process and was to become a central bank in fact before it was in theory.

In 1693 the government found itself badly in need of money to finance the war with France. William Paterson presented a proposition for raising funds which was to result in the formation of the Bank of England. His proposal met with little opposition, and after minor modifications were made, it was adopted in 1694. It provided for a loan in perpetuity of £1,200,000 to be made to William and Mary by the subscribers of the newly formed Bank of England. In return the Bank received government securities on which it could issue notes. It was to be paid interest at the rate of 8 per cent in addition to an annual payment of £4,000 for "management." It was also given a Royal charter to operate as a bank for a period of twelve years.¹⁷

¹⁶Feavearyear, p. 102.

¹⁷Clapham, The Bank of England, I, 14-18; Condliffe, p. 149.

The role played by William Paterson in the formation of the Bank of England is obscure. Clapham writes, "Whether he was strictly the originator of the final Bank of England scheme, or merely the mouthpiece of a City group, we cannot be quite sure."¹⁸ At any rate, there can be no doubt that the Bank had the backing of the majority of the City merchants. It is also apparent that the backers of the Bank were well organized for the entire loan of £1,200,000 was subscribed for in less than two weeks.¹⁹

The Bank's charter and its intimacy with the government allowed it several important advantages over other banking firms. In the first place, until 1855 the Bank of England was the only banking firm which enjoyed limited liability.²⁰ In the second place, it was the only joint-stock bank which could issue notes.²¹ Until the nineteenth century this provision of the charter was interpreted to mean that the Bank had the exclusive right of joint-stock banking. As a result there were no joint-stock banks in England until 1826 and none in London until 1833.²²

The third important advantage which the Bank had was that it became the holder of the government's balances.²³ Although this provision was not explicit in the charter,

¹⁸Ibid., pp. 14-15.

²⁰Haines, p. 60.

²²Condliffe, p. 150.

¹⁹Ibid., p. 20.

²¹Ibid.

²³Haines, p. 60.

the Bank had a large part of these deposits as early as 1714. Following the "South Sea Bubble" and the decline of the South Sea Company, the deposits increased greatly. By 1762, 70 per cent of the government debt was held by the Bank, and it had become "...by habit not by law, bankers to the state and most of its departments."²⁴ By 1874 "the Bank of England had the exclusive possession of the Government Balances."²⁵

The Bank of England, which began its history doing the regular business of the goldsmith bankers, soon became much more than an ordinary bank. During the bank run of 1745, 1,100 London merchants agreed to accept Bank of England notes in unlimited amounts,²⁶ an indication that these notes were considerably above the ordinary. Smith wrote, "The stability of the Bank of England is equal to that of the British government. All that it has advanced to the public must be lost before its creditors can sustain any loss.... It acts, not only as an ordinary bank, but as a great engine of state."²⁷ And according to Clapham, "The Bank of the early years was a speculation with an uncertain future; the Bank of the mid and late eighteenth century was an institution."²⁸

²⁴Clapham, The Bank of England, I, 101-102.

²⁵Walter Bagehot, Lombard Street: A Description of the Money Market (New York, 1874), p. 96.

²⁶Clapham, The Bank of England, I, 234.

²⁷Smith, p. 304.

²⁸Clapham, The Bank of England, I, 228.

By the end of the eighteenth century the Bank of England had assumed many functions of a public institution although its ownership remained in the hands of private interests. When war broke out in Europe in 1793 the government turned to the Bank for funds and within four years had borrowed nearly £10,000,000.²⁹ Much of the money was used to support foreign armies fighting Napoleon in Europe. As gold left England for the mainland, the Bank experienced a heavy drain on its reserves. In 1797 the rumor was spread that a French invasion of England was imminent. Spurred by these reports, deposit holders started a run on the country banks, resulting in a further decrease in the Bank's gold reserve. In order that the Bank be able to continue financing the war, the government suspended the convertibility of bank notes into gold, thus placing England on a paper standard.³⁰ When the Bank's reserve increased from £1,086,000 in February of 1797 to £4,090,000 in August of that year, the Bank notified the government that it was "able to issue Specie in any manner that may be deemed necessary for the accommodation of the Public, and...can with safety resume its accustomed functions, if the political circumstances of the country do not render it inexpedient."³¹ However, the government did not deem it expedient, and until specie payment was resumed in 1819, Bank

²⁹Condliffe, p. 151.

³⁰Polk, p. 31.

³¹Quoted in Clapham, The Bank of England, I, 272.

of England notes served as a means of final payment into which other bank notes were convertible.

The manner in which the Bank managed its affairs and the paper currency during the restriction has given rise to a great body of literature and much controversy. The period was one in which prices were characterized by instability and by sudden and rather sharp increases.³² Most modern writers assume that the Bank could have controlled prices to a greater extent by a more judicious control of its note issue. Among contemporary observers one faction, led by David Ricardo, argued along much the same lines. Another faction, led by many of the Bank directors, contended that the issue of Bank notes had nothing to do with the rise in prices.³³ It was an uneven contest and one in which the Bank had little chance of winning. The Ricardian view was encompassed in the Bullion Report of 1810, a document which was to form the basis for monetary theory throughout the nineteenth century.³⁴

The Bank Charter Act of 1833 removed a restriction which had greatly hindered the formulation of Bank policy, the 5 per cent maximum on the Bank rate. Since the maximum rate was not removed from the interest charges of other banks

³²Condliffe, p. 152.

³³Clapham, The Bank of England, II, 23-26.

³⁴Frank Whitson Fetter, "The Politics of the Bullion Report," Economica, XXVI, new series (May, 1959), 99-100.

until 1856, this action indicates that Bank rate was coming to be understood as an instrument of Bank policy. The Act also provided that Bank of England notes would be legal tender for all amounts above five pounds.³⁵

The most important changes made in the structure of the Bank of England came in the Bank Charter Act of 1844. The advocates of the so-called "currency principle" had long maintained that the Bank should be divided into two separate departments, one responsible for the issuing of Bank notes and the other structured to operate much like an ordinary banking firm. The Bank Charter Act of 1844 required that all Bank notes be backed completely by gold except the first £14,000,000 worth which could be based on government bonds. The Act further provided that the Bank was to be divided into two departments. The Banking Department was to turn over to the Issue Department securities in the amount of £14,000,000 and all the gold in excess to day-to-day banking needs.³⁶ The Issue Department was to use the securities and gold as the basis for issuing Bank notes.

The Structure of the London Money Market

During the nineteenth century the London money market was the center of a great national and international complex. Bagehot states that in 1872 and 1873 the "known deposits" of

³⁵Feavearyear, p. 234.

³⁶Clapham, The Bank of England, II, 181-183.

London banks were almost twice the combined total of the next three money markets. The figures he gives were £120,000,000 for London as compared to £61,000,000 for Paris, New York, and the German Empire.³⁷ "And the unknown deposits--the deposits in banks which do not publish their accounts--are in London much greater than those in any of these cities."³⁸ According to Jenks, bank deposits in England grew from about £30,000,000 in 1830 to £200,000,000 in 1856 and £350,000,000 in 1866.³⁹ Unlike the banking systems on the continent where checking accounts were seldom used, London transacted 95 per cent of her business by this method in 1860.⁴⁰

Toward the end of the eighteenth century there was a tremendous growth of country banking, primarily as a result of the Industrial Revolution. Because of the geographic distribution of industry these banks were rather sharply divided into lenders and borrowers, the lenders being in the agricultural areas and the borrowers in the industrial areas. These two groups of banks were linked by the London banks in which all country banks kept deposits.⁴¹

At the beginning of the nineteenth century most of the country banks, unlike the private banks in London, circulated their own bank notes. Because of the tendency to over issue

³⁷Bagehot, p. 4.

³⁸Ibid., pp. 4-5.

³⁹Jenks, p. 245.

⁴⁰Ibid.

⁴¹Feavearyear, pp. 153-154. The country banks also played an important role in the development of the discount market. See below, pp. 36-37.

laws were passed in 1776 and 1808 which prohibited notes for sums under one pound and required that a license be obtained from the government before notes could be issued. Following the joint-stock banking movement which began in the 1830's, the amount of country-bank notes in circulation declined since no joint-stock company except the Bank of England could issue notes.⁴²

By the nineteenth century the London private banks, mostly ex-goldsmiths, had long since ceased to issue their own notes and circulated instead Bank of England notes. These notes were used as a medium for settling balances through a clearing system which was well developed by 1780.⁴³ They also served, along with the accounts which the London banks maintained in the Bank of England, as reserves.⁴⁴ The London banks held little gold in their vaults but instead transferred it to the Bank of England in return for notes or accounts. The joint-stock movement affected London banks much as it did the country banks, and by 1913 only a dozen or so banks remained in the London area.⁴⁵

In addition to the network of banks, the London money market of the nineteenth century consisted of many specialized

⁴²Condliffe, p. 154. See Table I, p. 40.

⁴³Clapham, The Bank of England, I, 166-167.

⁴⁴Haines, pp. 166-167.

⁴⁵"Foreign Banks: Great Britain," Colliers Encyclopedia, VIII (New York, 1959), 255.

firms. Those which were primarily involved in international trade and finance were the most influential and had priority over the available funds. For example, between 1911 and 1913 an average of £200,000,000 of new issues of securities were floated annually in London. Of this amount only £36,000,000, on the average, were domestic issues.⁴⁶

One group of specialized firms which was involved in international finance was the acceptance houses. These firms formed the connecting link between the London money market and the world's traders. Under this system importers throughout the world established accounts with the large London houses. The acceptance houses then allowed exporters to draw bills of exchange against them rather than against the importers. The importer would then remit to the London house the amount of the bill of exchange plus a small commission.⁴⁷ Usually these firms did not hold the bills to maturity but discounted them in the London discount market.

The system under which the acceptance houses endorsed bills of exchange resulted in the sterling bill becoming the currency of foreign traders. As long as their credit remained good in London they had little use for gold. The system also meant that the world's trade was being financed through the London money market since the acceptance houses, in accepting

⁴⁶Condliffe, pp. 346-347.

⁴⁷Hawtrey, Currency and Credit, pp. 134-135.

bills of exchange, became short-term lenders. The merchants involved in foreign trade were therefore primarily dependent on credit conditions in London rather than in money markets in their resident countries or elsewhere.

The London bill brokers and discount houses served as intermediaries between the acceptance houses and the banking firms which had money to lend. In the original form the bill broker was merely "...a specialist broker who for a commission found a buyer for a bill or bills for buyers."⁴⁸ The bill broker developed rather late as a member of the London money market. Throughout most of the eighteenth century merchants had discounted their bills directly to the London banks, or if the supply exceeded the demand, the excess would be taken to the Bank of England for discount.⁴⁹ Under these conditions there was little need for a middleman.

The growth of country banking was an important factor in the development of bill broking. The banks located in the agricultural districts usually had excess funds which could not be employed in their home areas. They sought to find investment for their accumulations either in London or in the industrial districts which were usually short of funds for investment purposes. This was accomplished either by discounting and holding inland bills of exchange or by

⁴⁸Clapham, The Bank of England, II, 135.

⁴⁹Hawtrey, The Art of Central Banking, p. 117.

depositing their surplus in interest-drawing accounts in the London banks.⁵⁰ The bill broker, who had knowledge of both merchants desiring to discount bills and of banks with excess funds, began to play an important role in the money market by facilitating the transfer of the inland bills.

Following the suspension of payments in 1797 the bill-broking business was extended. As a result of the suspension the supply of paper money increased and interest rates fell. The London banks, which had previously paid interest on the country-bank deposits, ceased to do so. The country banks withdrew funds not needed for reserves from the London banks and made them available to the bill brokers.⁵¹ By 1810 the bill-broking firm of Richardson, Overend, and Company was doing a "huge broking business."⁵²

By 1825 the operations of the bill brokers began to change to that of discount houses. The London bankers, in an effort to keep their idle reserves at a minimum, began lending money to the bill brokers at call or short notice.⁵³ These loans gave the banks a source of near-liquid reserves which could be called in if needed but which in the meantime drew interest. "The bill-brokers, ceasing to be mere brokers,

⁵⁰Condliffe, p. 154.

⁵¹Clapham, The Bank of England, II, 135.

⁵²Ibid.

⁵³Hawtrey, The Art of Central Banking, pp. 118-119.

bought bills and held them on their own account, and paid the banks interest on the money lent at a rate a little below the average yield of the discount on the bills."⁵⁴

By the middle of the nineteenth century the bill brokers and discount houses had become established and influential members of the City. Although the inland bill had ceased to be an important instrument of trade, foreign bills were much more numerous, and "...the London discount market became bigger and more active than ever."⁵⁵ According to Jenks, "Neither Rothschilds nor Barings, neither the private banks nor their joint-stock competitors, were the representative institutions of this stage of London's credit evolution. None were so powerful as the bill-brokers."⁵⁶ The major discount house, Overend, Gurner, and Company, had bills outstanding in the amount of £64,000,000 in 1860. Between 1859 and 1865 their total volume of discounts was £115,000,000.⁵⁷

As England's wealth increased at home, the amount of capital which she sent abroad also increased. Jenks values the amount of surplus capital exported between 1815 and 1875 at £500,000,000. From 1850 until 1873 the amount exported each year averaged £15,000,000.⁵⁸ "Thru regular reinvestment of the accruing interest abroad, the nominal value of Britain's

⁵⁴Ibid., p. 119.

⁵⁵Ibid., p. 127.

⁵⁶Jenks, p. 246.

⁵⁷Ibid.

⁵⁸Ibid., pp. 332-333. These amounts were in addition to the reinvestment of accrued interest.

foreign wealth had swelled by 1875 to about £1,200,000,000."⁵⁹ From 1864 to 1914 Britain invested on the average 4 per cent of her national income abroad.⁶⁰ And during much of the nineteenth century and down to 1914, the income gained from these ventures was responsible for about 20 per cent of her national income.⁶¹

Much of England's capital export was in the form of foreign securities, both public and private, sold by the international investment houses in London.⁶² Although in many cases funds raised in this manner were squandered, especially those secured through the public issues, the money of the British investors nevertheless provided for the accumulation of capital throughout the world.

Foreign investment also took the form of short-term credit which was used primarily for speculation but which released other funds for capital investment purposes. The English banking firms which were stationed in leading money markets everywhere made credit available at extremely low rates of interest. In addition the firms of foreign countries operated in all important financial communities solely on credit from London.⁶³

⁵⁹ Ibid., p. 335.

⁶⁰ R. Nurskse, "The Problem of International Investment Today in the Light of Nineteenth-Century Experience," The Economic Journal, LXIV (December, 1954), 744-745.

⁶¹ Jenks, p. 6.

⁶² Condliffe, p. 341.

⁶³ Jenks, pp. 188-189.

The short-run effect of Britain's foreign investment was to greatly extend English markets. The long-run effect, however, was to hasten the industrialization of other nations, a process which would eventually destroy Britain's dominant position in the world economy. Even before the end of the nineteenth century England began to experience a relative decline of industrial capacity and output. The delicate balance between industry and agriculture was destroyed, and England became a heavy importer of agricultural commodities. According to Jenks, she ceased sending surplus capital abroad in 1875 and from that date reinvested only the profits from previous investments.⁶⁴

The Bank of England's Role in the London Money Market

The Bank of England's changing role in the London money market could serve as the epitome of the English tradition of empiricism and "muddling along." The Bank was organized during the era of Mercantilism for the primary purpose of financing the war with France. It reached its peak of power and influence during the laissez faire era, a period in which the economic theorists would have been much more comfortable if it had not existed at all. Its duties and functions were never codified in law but were accepted by the Bank when it became apparent that things needed doing and that there was

⁶⁴Ibid., p. 333.

no other agent which could handle the job, or at least handle it as well.

One of the functions assumed quite early by the Bank of England was that of principal note-issuer in Britain. The relative value of notes issued by the Bank and by other banks is shown in Table I.

TABLE I
NOTE CIRCULATION OF THE BANK OF ENGLAND AND
OTHER BANKS, SELECTED YEARS, 1792-1914*
(In Thousands of Pounds Sterling)

Year	Bank of England Note Circulation	Note Circulation of other Banks
1792	£11,000	£12,000
1796	11,000	5,500
1809	20,000	25,000
1819	24,000	20,000
1824	20,500	20,000
1844	21,250	11,000
1846	21,250	7,750
1856	20,500	6,750
1865	21,250	5,750
1889	24,500	2,300
1893	25,750	2,000
1900	29,500	1,250
1914	£ 74,750	£ 100

*Source: Feavearyear, p. 297

The notes circulated by private banks were composed only of country-bank issues during the period dealt with in Table I. The private banks in London had discovered earlier in the eighteenth century that the Bank's notes were preferred over theirs. They had ceased to issue and only Bank of England

notes circulated within the thirty-mile radius of London.⁶⁵ The country banks continued to issue throughout the nineteenth century, but as the number of private banks decreased and were replaced by joint-stock banks, the volume declined greatly.

Another function which the Bank of England came to accept was that of the holder of the final reserve. The reserves of the country banks consisted of correspondent accounts with the London banks. The latter, in turn, kept their reserves in the form of deposits in the Bank of England. When the international system matured in the nineteenth century, the Bank became the final source of reserves not only for Britain but for the world as well. For the banks and citizens of foreign countries held sterling bills and maintained accounts in London banks. Since the discount and bullion markets in London were open to foreigners, their sterling holdings could be readily converted to gold. And London's gold, for all practical purposes, was the Bank of England's gold.

During the early part of the nineteenth century the Bank accepted another responsibility in relation to the London money market, that of lender of last resort. During the first century of its existence the Bank had considered itself to be a private, profit-making organization in competition with other banks.⁶⁶ Its traditional ties were with the

⁶⁵ Feavearyear, p. 153.

⁶⁶ Ibid, p. 229.

merchants, and at the beginning of the century it had made a sizable portion of its income from discounting their bills of exchange. Table II shows the Bank's income derived from discounts between 1796 and 1915.

TABLE II

THE BANK OF ENGLAND'S INCOME FROM DISCOUNTS
IN SELECTED FISCAL YEARS, 1797-1915*
(In Thousands of Pounds Sterling)

Year, August to August	Income	Year, August to August	Income
1796-1797	£233	1854-1855	£239
1799-1800	314	1859-1860	270
1804-1805	513	1864-1865	429
1809-1810	914	1869-1870	192
1814-1815	704	1874-1875	122
1819-1820	215	1879-1880	64
1824-1825	140	1884-1885	47
1829-1830	52	1889-1890	90
1834-1835	95	1894-1895	34
1839-1840	223	1899-1900	225
1844-1845	81	1904-1905	219
1849-1850	£ 78	1909-1910	183
		1914-1915	£949

*Source: Clapham, The Bank of England, II, 433-434.

Table II indicates that the volume of bills discounted by the Bank declined sharply after reaching a high in 1809 and 1810 and increased only in those years of crisis or of unusual business activity.

There were several reasons for the Bank's changing role in the money market in respect to discounting. In the first

place, Bank rate, which was seldom changed before 1844, remained at its traditional 5 per cent until 1822,⁶⁷ a figure which was well above the market rate for most of the period.⁶⁸ In the second place, it was during this time that the discount market really became organized. Previously, when merchants were unable to discount their bills at the private banks where they customarily traded, they would take them to the Bank of England and accept the penalty of paying a somewhat higher rate of interest. Other banks, and especially the country banks, which might have been in the market for bills were not approached. The bill broker, however, had knowledge of all banks desiring bills. "The results was that only a real excess of bills over what the banks could take was brought to the Bank of England."⁶⁹

It appears that even before the resumption of payments the Bank had accepted the role of lender of last resort. In 1817 a majority of the directors seemed to agree that the Bank should not compete for discounts with the private banks.⁷⁰ This was the policy which was elucidated by J. Horsley Palmer in 1832. Clapham is of the opinion that Palmer, who was a director in 1817, was not stating a new policy in 1832, but was "...generalizing from an already established practice."⁷¹

⁶⁷See Table III, p. 46.

⁶⁸Condliffe, p. 155.

⁶⁹Hawtrey, The Art of Central Banking, p. 118.

⁷⁰Clapham, The Bank of England, II, 62.

⁷¹Ibid.

The Bank of England also stood ready to give financial aid to firms in danger of becoming insolvent. This was a relationship which the Bank had with the money market almost from the beginning and seems to belie the claim that it was just another competing, private bank. In his discussion of the Bank Adam Smith noted that it occasionally supported commercial firms both in London and on the continent. "Upon one occasion, in 1763, it is said to have advanced for this purpose, in one week, about 1,6000,000%. [sic]; a great part of it in bullion."⁷² It seemed to have been motivated by neither profit nor friendship in these transactions. Several firms, including the South Sea Company, which had at one time or another offered serious opposition to the Bank numbered among those which benefited.

The Bank of England's Instruments of Control

The Bank of England's unique position in the money market made it imperative that instruments of control be created. As the holder of the final reserve, the Bank could not stand idly by and allow its vaults to be emptied of gold. The Bank's close connection with the government as well as the implicit but real obligation to assist commercial firms in difficulty increased the necessity for a stable financial community. Natural law might have been all the control necessary for some firms but not for the Bank of England.

⁷²Smith, p. 304.

The eighteenth century was a period of experimentation in which the Bank of England attempted to find methods of control by trial and error. In times of crisis the Bank advanced funds to distressed firms in an attempt to bolster the money market. The Bank also devised means of protecting its reserve. It came to realize that by discounting bills and paying for them in Bank notes the amount of specie which could be removed from its vaults by foreigners was increased. When such a drain became serious in 1783, the Bank faced it by refusing to discount.⁷³ In 1793 it used a different approach to combat an interior drain: Bank notes were issued in small denominations, thereby decreasing the demand for gold and silver.⁷⁴

From 1825 until the middle of the century the Bank relied mainly on open-market operations for the control of credit, with the use of Bank rate playing a greater and greater role. The Bank had learned that rationing of discounts was not a wise policy because commercial firms were endangered when they were unable to discount at the Bank.⁷⁵ In 1825 the Bank discounted almost £6,000,000 of bills during one six-day period and was prepared to continue discounting until its vaults were empty.⁷⁶

⁷³Clapham, The Bank of England, I, 255-256.

⁷⁴Ibid., p. 262.

⁷⁵Hawtrey, Currency and Credit, p. 269.

⁷⁶Clapham, The Bank of England, II, 99-100.

Changes in Bank rate, used as early as 1825, became the Bank of England's primary instrument of credit control after 1844. Prior to 1844 the rate had remained unchanged over long periods of time. As seen in Table III, the discount rate on inland bills of exchange remained at 5 per cent from 1719 to 1822. The changes in 1825 and 1839 were apparently the first attempts to control credit by use of the Bank rate.

TABLE III
CHANGES IN BANK RATE, 1719-1844*

Date	Rate	Date	Rate
1719, April 30	5%	1836, July 21	4 1/2%
1722, August 23	4**	1836, September 1	5
1745, December 12	5**	1838, February 15	4
1746, May 1	4**	1839, May 16	5
1773, May 13	5**	1839, June 20	5 1/2
1822, June 20	4	1839, August 1	6
1825, December 13	5	1840, January 23	5
1827, July 5	4%	1842, April 7	4
		1844, September 5	2 1/2%

*Source: Clapham, The Bank of England, I, 299; II, 429.

**Change in rate of foreign bills only

The utilization of the Bank rate in controlling credit was limited until the Bank Charter Act of 1833 removed the 5 per cent maximum. After 1844 the Bank began to make frequent use of the Bank rate as may be seen from Table IV. Notice the numerous changes and wide variations in the rate as compared with the pre-1845 period.

TABLE IV
CHANGES IN BANK RATE, 1845-1880*

Year	Highest Rate Set during Year	Lowest Rate Set during Year	Number of Changes in Rate during Year
1845	3 1/2%	2 1/2%	3
1846	3	3	1
1847	8	3 1/2	9
1848	4	3	3
1849	2 1/2	2 1/2	1
1850	3	3	1
1851	-	-	0
1852	2 1/2	2	3
1853	5	2 1/2	6
1854	5 1/2	5	2
1855	7	3 1/2	8
1856	7	4 1/2	8
1857	10	5 1/2	9
1858	6	2 1/2	6
1859	4 1/2	2 1/2	5
1860	6	3	11
1861	8	3	11
1862	3	2	5
1863	8	3	12
1864	9	6	15
1865	7	3	16
1866	10	3 1/2	14
1867	3	2	3
1868	3	2 1/2	2
1869	4	2 1/2	7
1870	6	2 1/2	10
1871	5	2	9
1872	7	3	14
1873	9	3	24
1874	6	2 1/2	13
1875	5	2	12
1876	5	2	5
1877	5	2	7
1878	6	2	10
1879	4	2	5
1880	3	2 1/2	2

*Source: Clapham, The Bank of England, II, 429-430.

It should not be assumed that the Bank's money rates were of no significance in the international system prior to 1844. When Bank rate was lowered to 4 per cent in 1822, Gentleman's Magazine reported, "As it was supposed that the impulse given here would be felt in all the markets of the continent, couriers were dispatched the same night, to carry the intelligence to all the chief cities of Europe."⁷⁷

A comparison of Table III and Table IV indicates the change in Bank policy in respect to the Bank rate which occurred around the middle of the nineteenth century. Prior to 1845 Bank rate seldom changed at all and for the most part was well above the rates charged by the other banks in London. During this period it certainly had no connection with "market" rate. Nor does there seem to be any evidence that Bank rate was determined by market forces after 1845. In fact, it is often asserted that just the opposite was the usual case; that is, all the other rates in the money market tended to change in response to changes in Bank rate.⁷⁸ For example, in 1857 an official of the discount house of Overend's stated that his company usually set its rate just under Bank rate.⁷⁹ It seems, therefore, that Bank rate was an effective

⁷⁷"Occurrences in London and Its Vicinities," The Gentleman's Magazine, XCII, part 1 (June, 1822), 558.

⁷⁸See, for example, Condliffe, p. 358; Hawtrey, Currency and Credit, p. 138; Nadler, p. 616.

⁷⁹Clapham, The Bank of England, II, 236.

instrument of control because it was the pivotal rate in the London money market: it determined the "Market" rate rather than being determined by it.

During the last quarter of the nineteenth century open-market operations were used as a supplement to changes in Bank rate. When the Bank desired to soak up credit, it would borrow from the market and put up securities as collateral.⁸⁰ The effect would be to force the bill brokers to discount their bills at the Bank where they would be met with an increased Bank rate.

⁸⁰Beach, p. 158.

CHAPTER IV

THE INTERNATIONAL STANDARD OF THE NINETEENTH CENTURY IN THEORY AND IN PRACTICE

The international standard of the nineteenth century was an English innovation. Other countries became a part of it not necessarily because they wanted to but because they had no alternative if they were to trade with Britain. And the advantages of trading with Britain dictated such a policy; only from Britain could industrial commodities of high quality be obtained so cheaply. The adoption of the sterling bill of exchange as the international currency required that England be the home base of the standard. Williams writes in this connection,

Gold standard operation before the [First World] War was not a matter of a mutual balance between a large number of co-equal countries, all responding equally, quickly and semiautomatically to gold flows between them. It rested primarily upon a world organization of trade and credit about London as a center. It was an organization which assigned to England an active role of control and to other nations a role of passive response to that control.¹

As discussed in Chapter III, the Bank of England was the central authority over the credit conditions in London. If, as Williams seems to indicate, London controlled the

¹Williams, p. 161.

operations of the international mechanism, then the Bank of England must have surely performed an important role.

The International Standard and The Bank of England in Theory

The nineteenth-century theorists asserted that the international gold standard was an automatic, self-equilibrating mechanism which was responsible for establishing prices on both the international and national level. It was assumed that the trading world was stable and atomistic and one in which no country was able to exert any influence. According to the theory, any deviation from international equilibrium would be only temporary. For example, an increase in prices above the equilibrium level would result in the exchange rate of the country's currency rising above mint parity. The result would be an efflux of gold and, according to the quantity theory of money, a decrease in prices.

According to nineteenth-century orthodoxy, international adjustment was accomplished through the central banks, of which the Bank of England was only one. The duty of the central bank was to adjust the note issue in accordance with its gold reserve. As long as the amount of currency in circulation responded to gold flows, the country would remain in step with the gold standard.

In England manipulation of the Bank rate became the accepted method of adjusting to international disequilibrium.

It was assumed that a persistent outflow of gold from the Bank meant that prices were too high in England. This was a signal that Bank rate should be raised, increasing money rates and decreasing the volume of business loans. Spending would be curtailed and prices would fall, tending to increase exports and decrease imports and turn the exchanges in favor of England.

By the middle of the nineteenth century it was also held that changes in the Bank rate would affect foreign lending as well as prices.² According to this theory an increase in Bank rate would draw short-term capital from foreign money markets. The dual theory is outlined by Bagehot:

Loanable capital, like every other commodity, comes where there is most to be made of it. Continental bankers and others instantly send great sums here, as soon as the rate of interest shows that it can be done profitably. While English credit is good, a rise of value of money in Lombard Street immediately by a banking operation brings money to Lombard Street. And there is also a slower mercantile operation. The rise in the rate of discount acts immediately on the trade of this country. Prices fall here; in consequence imports are diminished, exports are increased, and, therefore, there is more likelihood of a balance in bullion coming to this country after the rise in the rate than there was before.³

In 1832 the Bank of England officially adopted the postulate that Bank notes should be held in a fixed ratio to gold. Horsley Palmer, then Governor of the Bank, announced that the Bank would attempt to maintain a reserve equal to

²Wood, p. 151.

³Bagehot, p. 48.

one-third the combined notes and deposits.⁴ The "Palmer plan" also called for a revised version of the Bank's relation to the money market which was not altogether in keeping with the orthodox theory of the period. Palmer argued that the Bank of England should not compete with other banks in the discount market, although it should stand ready to discount at the official Bank rate. Instead, Bank rate should be set higher than the market rate and increased as the demand for discounts became greater.⁵

The discount policy which Palmer advocated was in essence the same policy the Bank had been following for some time. As seen in Chapter III, Bank rate had been above the market rate since almost the first of the century. With the extension of the discount market, this necessarily meant that the Bank no longer competed for discounts. However, the establishment of a fixed ratio of gold to currency and deposits, if such a policy was actually established, was new. The plan as outlined was an attempt to remove the "human element" from gold standard operations and reduce Bank policy to a mathematical formula. According to Viner, the Bank attempted, for the most part unsuccessfully, to follow the rule from 1827 to about 1839.⁶ Probably, however, the Bank did not attempt to rigorously adhere to the formula.

⁴Feavearyear, pp. 230-233. ⁵Ibid.

⁶Viner, pp. 225, 227.

The Bullion Report of 1810 had firmly established the quantity theory of money as the basis for monetary policy. It had argued that an over-issue of paper money would result in price increases just as an influx of gold or silver would. Furthermore, men were incapable of controlling the issue of paper money unless it was tied directly to specie. Although Parliament rejected the report, it became the official document of the nineteenth-century economists. Thereafter the controversy was waged over what actually constituted money. The "currency school" argued that only bank notes and coins were money. The "banking school," on the other hand, insisted that checking deposits also were a part of the money supply.⁷

The Bank Charter Act of 1844 rejected the theory that checking deposits were a part of the money supply and turned instead to the currency principle. Since about 95 per cent of all transactions in London were made by checks, the Act was predestined to fail. As Haines points out, "The fact is that the Bank Charter Act of 1844 was an anachronism. It attempted to regulate the money supply by regulating currency at precisely the time when currency was becoming a minor part of that supply."⁸

The Bank Charter Act of 1844 might not have had logic on its side, but it did have tradition. The Bullion Report

⁷Haines, pp. 62-64.

⁸Ibid., p. 65.

had not mentioned checking accounts as being money. Also, the much-cherished notion that the Bank could somehow be made to compete like any other bank was still very much alive. When he introduced the Act in Parliament, Robert Peel stated, "'Banking business, as distinguished from issue is a matter in respect to which there cannot be too unlimited or unrestricted a competition.'"⁹

Viner states that "the passage of the Act of 1844 by huge majorities was evidence of a general lack of confidence in the ability of the Bank properly to carry out its responsibilities to the public."¹⁰ But according to theory the Bank had no responsibility to the public other than passive response to the standard. And it only seems logical that passive response could have been accomplished easier and quicker through a pre-arranged formula. The Act can be best understood as an example of the extent to which economic liberalism had become embedded in nineteenth-century England. Instead of displaying a lack of confidence in the Bank, the Act demonstrated that Peel and the liberal parliament had come to realize that the gold standard could be neither automatic nor "natural" as long as men were operating it.¹¹

⁹Quoted in Clapham, The Bank of England, II, 187-188.

¹⁰Viner, p. 255.

¹¹"The real purpose of the Bank Charter Act of 1844 had been to get rid of the discretionary management of the currency and to provide for its automatic functioning according to natural law." Wood, p. 171.

The Bank Act of 1844 was based on two serious misconceptions: the money supply was composed only of currency and the international mechanism could be made to operate automatically. The Act was not long in demonstrating its ineffectiveness. When the market became over-extended in 1847, the Bank relaxed and waited for the currency principle to contract credit and stop the outflow of gold. When it became apparent that the automatic contraction of note issue could not cope with the situation, the provisions of the Act which tied notes to gold reserve were suspended.¹² Thus, in order to relieve the crisis of 1847, as well as serious crises to follow, natural law was suspended and man-made law allowed to replace it.

It is interesting to note that those persons closest to the situation, the principal officials and directors of the Bank of England, were for the most part opposed to the Act of 1844.¹³ And, according to Clapham, "...Long experience and tradition saved it [the Court of Directors] from acting simply as the governing body of an ordinary bank with no special public responsibility."¹⁴ It is also noteworthy that merchants and bankers never paid much attention to the automatic provisions of the Act. One banker, when asked if he had feared the Act would keep the Bank from issuing

¹²Viner, pp. 229-230.

¹³Clapham, The Bank of England, II, 114.

¹⁴Ibid., p. 188.

sufficient notes to meet the demand during the crisis of 1857, said, "I must say that that never gave us the smallest concern."¹⁵ He went on to explain, "We should have always have thought that if the Bank of England had stopped payment, all the machinery of Government would have stopped with it, and we never could have believed that so formidable a calamity would have arisen if the Government could have prevented it."¹⁶

Several other theories designed to restrict the discretionary powers of the Bank were advanced during the nineteenth century. Notable among these was Walter Bagehot's version of the defense-fund doctrine. Bagehot argued that the Bank's gold stock should never be allowed to go below £11,000,000. In order that it stay above this minimum, the Bank should raise the discount rate when the reserve decreased to about £14,000,000 or £15,000,000. This margin, Bagehot felt, would allow time for gold to be attracted from abroad.¹⁷

Throughout the nineteenth century, therefore, orthodox theory allowed the Bank of England only a passive role in the international system. In this connection Wood writes, "Bank of England policy...was regarded as a means of maintaining the most satisfactory contract with the international standard, which was itself governed by natural laws and not

¹⁵From the testimony of Alderman Salomons of the London and Westminster Bank before the Select Committee on the Bank Acts, House of Commons, 1857-58, cited in Bagehot, pp. 339-340.

¹⁶Ibid.

¹⁷Bagehot, pp. 327-328.

by decisions made in London."¹⁸ In what must have been a frustrating experience, proponents of the passive adjustment theory attempted to apply it to the Bank of England. These attempts failed for the Bank refused to react according to the tenets of natural law.

Modern theory is somewhat more sophisticated than nineteenth-century theory. Short-run adjustment, according to modern theory, occurs in much the same manner as thought by the classical theorists or through gold flows and short-term capital movements. But long-run adjustment is made primarily through changes in income rather than through changes in prices. Modern theory employs a complicated set of multipliers to explain how adjustment to disequilibrium is made.¹⁹

The income approach is superior to the price-specie flow mechanism in many ways. It does not depend on the quantity theory of money nor is it necessary to assume full employment or flexible prices determined in a free, competitive market.²⁰ But however valuable the income approach might be in general, it apparently does not offer a completely satisfactory model for analyzing the nineteenth-century situation. For the international mechanism which existed during the nineteenth century was unique and cannot be fitted

¹⁸Wood, p. 175.

¹⁹Roland L. Kramer, Maurice Y. d'Arclin, and Franklin R. Root, International Trade (Cincinnati, 1959), pp. 167-173.

²⁰Ibid., p. 166.

easily into an abstract model. The mechanism was dominated not by gold but by a highly centralized credit system which revolved around sterling.

The International Standard and the
Bank of England in Practice

Those studies which approach the nineteenth-century international standard historically seem to offer the best guide to its actual operation. Several of these studies seem to cast serious doubt on the image of automaticity which surrounds the standard. Both Viner and Polanyi emphasize that the mere existence of central banks restricted to some extent its automatic operation. Viner defines an "automatic international mechanism" as one in which all the currency is either metallic or based on metal under fixed fractional reserves. But when the amount of specie reserve is determined by a central authority, the standard can no longer be completely automatic but is to some degree "managed." The extent to which the mechanism is managed depends on the policy of the central authority. If it bases the ratio of specie to currency on a simple formula, the mechanism might approach automatism. However, Viner feels that this is seldom the case.²¹

Polanyi states it much the same way: "Central banking reduced the automatism of the gold standard to a mere

²¹Viner, pp. 390-392.

pretense. ...Manipulation was substituted for the self-regulating mechanism of supply credit, even though the device was not always deliberate and conscious."²² He continues, "more and more it was recognized that the international gold standard could be made self-regulating only if the single countries relinquished central banking."²³

The nineteenth-century theory of the trading world as a group of equal, competing nations is generally denied by economists who have studied the period. These economists emphasize that the dominating influence came from England. Hawtrey expresses this position clearly:

The nineteenth century credit system is not to be interpreted as consisting of a number of countries each exercising independent control over credit within its limits, and being led by the influence of gold movements to accommodate its credit policy to that of the others. It is rather to be regarded as a centralized system responding to a leader. The center was London and leader the Bank of England.

.....
Other countries, while they had to exercise so much credit control as was necessary to adopt their own conditions to world credit movements, usually found their task more than half done for them. The world credit movements were initiated in London, and tended to spread to all other centers without further action.²⁴

Brown suggests that this centralization of authority was not only present but was actually necessary for the successful operation of the system.²⁵

²²Polanyi, p. 195.

²³Ibid.

²⁴R. G. Hawtrey, "London and the Trade Cycle," American Economic Review, XIX, supplement (March, 1929), pp. 70-71.

²⁵Brown, I, xiii.

The theory held by both classical and modern economists that the immediate result of international disequilibrium was short-term capital movements does not seem to have always been the case during the nineteenth century. Polk reports that during the crisis of 1857 an increase in Bank rate and other money rates in London resulted in similar increases on the continent.²⁶ According to Hawtrey, from 1871 until 1914 money rates in other financial centers seldom diverged far from rates in London.²⁷ "...The Bank of France and the Reichsbank had practically surrendered the control of credit in Europe to the Bank of England."²⁸

Although many excellent studies have been made of both the Bank of England and the international mechanism of the nineteenth century, there apparently has been no thorough examination of the relationship between the two. Studies of the Bank have generally concentrated on its function as the English central bank. Those economists who have concluded that the international standard was in fact a sterling standard have for the most part failed to examine closely the manner in which the Bank performed its role in that standard. As a result the international function of the Bank has been examined only superficially.

²⁶Polk, p. 36.

²⁷Hawtrey, Currency and Credit, p. 140.

²⁸Ibid., p. 141.

However, several economists have to some extent made notice of the Bank of England's international role during this period. Among these economists Wood is of the opinion that the Bank managed the standard, but his work is primarily in the history of central-banking theory and is concerned only indirectly with the international aspects. Hawtrey states time and time again that the Bank was responsible for world-wide credit conditions, but he apparently fails to draw the conclusion which this interpretation implies. He further obscures the Bank's role by emphasizing the rhythmic and "natural" contractions and expansions of credit resulting from the "automatic" operation of the standard. Hawtrey's interpretation of the trade cycle is included in most studies of the cycle, usually as a demonstration of a bankrupt theory, but unfortunately his examination of the standard is usually overlooked.

One of the keys to understanding the nineteenth-century Bank of England is the background and tradition of those men who determined its policy. The governing body of the Bank was the Court of Directors, composed of twenty-four persons, of whom one was the Deputy Governor and one was the Governor. By custom a director was elected first to the position of Deputy Governor for two years and at the end of this period was elevated to the Governor's position. After two years as Governor the director "passed the chair" and continued on as

a member of the Court.²⁹ Tradition was so strong that only one person became Governor without having first served as Deputy Governor, and only one, the same man, was Governor for more than one term. Of the more than one hundred Governors that served during the period from 1694 to 1914, only eight had their terms extended from two to three years.³⁰

The line of advancement to the Governor's chair was determined mainly by the length of service as a director. According to Bagehot, the average period which elapsed from the time a person was first elected a director until he became Governor was about twenty years.³¹ New members to the Court of Directors were in fact named by the members of that body although in theory they were elected by the stock holders. By law each year a percentage of the directors were not subject to reelection. According to custom it was the youngest members who withdrew. Usually they remained out the required year and were then reelected. Once a director had "passed the chair" he was immune to the rotation and became a fixture. Under this arrangement it was the older members of the Court who wielded the real power and influence.³²

Another aspect of the Bank's tradition was the professional background of the directors. During the period under

²⁹Clapham, The Bank of England, I, 108.

³⁰Ibid., I, 108; II, 418. ³¹Bagehot, p. 211.

³²Ibid., pp. 208, 211.

study no professional bankers served on the Court, ostensibly because of the traditional belief that the Bank of England was just another private, competing firm. To allow rival bankers into the sanctum of the Court would have violated all the rules of good business practice. Instead of being private bankers the directors were almost without exception London merchants and merchant bankers. According to Clapham, all the active members were involved in commerce or were from mercantile families with one exception--the brother-in-law of Walpole.³³

Therefore, it is not surprising that the Bank remained close to the mercantile world throughout the nineteenth century. The Bank's discount business, which during the first hundred years or so of its existence composed the major part of its non-government business, strengthened the relationship. As late as 1857 the Bank displayed a hesitance to break these traditional ties. By this time the bill broker had become an important part of the London money market. The Bank, eager to restore the practice of doing business directly with the merchant, attempted to exclude the bill broker from its discounting facilities.³⁴

The Bank's policy was determined not by the traditions and rules of the commercial-banking world, but by those of

³³Clapham, The Bank of England, I, 109.

³⁴Hawtrey, The Art of Central Banking, pp. 117-119.

the mercantile world. Bagehot was correct when he wrote,

A board of upright and sensible merchants will always act according to what it considers "safe" principles-- that is according to the received maxims of the mercantile world then and there--and in this manner the directors of the Bank of England have acted nearly uniformly.³⁵

The "received maxims of the mercantile world" which guided the directors were international in scope rather than domestic. One of the few clear statements on this point is made by Condliffe:

In their judgments the directors of the Bank were influenced by financial needs of British industry only as one consideration among many world-wide factors.

.....
Thus the ultimate control of the money market lay in the hands of the Bank directors and these men were primarily interested in international trade and finance.... More and more the indices they interpreted were those reflecting world trade and finance rather than national production and employment.³⁶

In practice, then, the Bank was the international central bank first and the English central bank second. This was the case because, in the first place, the Bank had no other choice. Because of its position in the London money market it was the holder of the final reserve and the lender of last resort for all the trading world. Secondly, the men who determined Bank policy were outward-looking. Their interests were international rather than national.

It should not be assumed that the Bank of England was specializing in international economic affairs at England's

³⁵Bagehot, pp. 173-174. Bagehot's emphasis.

³⁶Condliffe, pp. 348, 358.

expense. As everyone connected with trade and industry knew, the well-being of England was closely connected with that of the trading world. A stable world meant stable markets for British products, and prosperous foreigners meant that domestic industry and trade would prosper.

The failure to understand that the Bank of England was the international monetary authority has led to a greatly over-simplified picture of what determined Bank policy. It is generally assumed that the Bank based policy strictly on its reserve position. According to this theory, Bank rate was raised as a response to an efflux of gold and lowered when gold began to flow back into the Bank's vaults in a sufficient amount. This was the theory advanced by the classical economists and clearly accepted by Hawtrey: "And credit policy [of the Bank] was guided entirely by the gold position."³⁷ In another source he writes, "The vital indicator was the reserve of the Banking Department of the Bank of England."³⁸

As Viner points out, a characteristic of central banks in general is a disinclination to accept any simple formula as a basis for determining policy. Instead, they prefer to meet each situation as it comes.³⁹ This is a vital point,

³⁷Hawtrey, "London and the Trade Cycle," p. 72.

³⁸Hawtrey, The Art of Central Banking, p. 202. Also see Beach, p. 154.

³⁹Viner, p. 391.

for in the classical system gold flows constituted the primary equilibrating device. Central banks were allowed in the system only under the condition that they hinge their policy on gold movements. While it is true that the Bank officials usually, but not always, claimed that they based policy on the reserve position, the indication is that they did so in deference to the economic opinion of the period and to the Bank Charter Act of 1844. Wood, the only source found which directly questions the theory that Bank policy was tied to gold, writes,

As a governor once stated, the Bank considers, in addition to minor gold movements at the time, probable future gold movements, the state of trade, the condition of borrowers, the markets for produce, the harvest, and home and foreign politics. To my mind this meant really that the Bank had no formula. While gold movements were a very important factor in regulating the rate, there was no automatic or predictable relation between the two.⁴⁰

In short, it appears that the Bank did not base its policy on the state of its reserves alone but on general and worldwide economic conditions. While this explanation is much more compatible with generally accepted theories of human action, it would seem to question the validity of the position granted gold by traditional wisdom.

Any attempt to measure the relationship between Bank rate and the Bank's gold reserve will be, because of the nature of the variables, something less than perfect.

⁴⁰Wood, p. 8.

Table V, therefore, attempts only to demonstrate that from year to year no fixed and inviolable pattern emerged from the relationship.

TABLE V
NET FOREIGN GOLD LOSSES AND GAINS OF THE BANK OF
ENGLAND AND BANK RATE, 1881-1909*

Year	Net Gains (+) or Losses (-) of Gold (Thousands of £)	Bank Rate	
		At End of June	At End of December
1881	-£2,340	2 1/2%	5%
1882	+ 2,441	3	5
1883	+ 802	4	3
1884	+ 964	2	5
1885	+ 1,059	2	4
1886	- 3,980	2 1/2	5
1887	+ 804	2	4
1888	+ 33	2 1/2	5
1889	+ 1,358	2 1/2	6
1890	+ 8,796	4	5
1891	- 1,558	3	3 1/2
1892	+ 1,061	2	3
1893	- 26	2 1/2	3
1894	+ 9,019	2	2
1895	+14,376	2	2
1896	- 8,099	2	4
1897	- 1,084	2	3
1898	+ 1,947	2 1/2	4
1899	+ 9,691	3	6
1900	+ 998	3	4
1901	+ 3,070	3	4
1902	- 246	3	4
1903	- 297	3	4
1904	+ 2,816	3	3
1905	+ 589	2 1/2	4
1906	+ 5,762	3 1/2	6
1907	+ 6,293	4	7
1908	- 3,009	2 1/2	2 1/2
1909	+£8,119	2 1/2%	4 1/2%

*Source: Beach, p. 68; Clapham, The Bank of England, II, 431-432.

As a parallel to the generally accepted theory that Bank rate was determined solely by the Bank's reserve position, it is assumed that changes in Bank rate always influenced gold flows. In this connection Condliffe states, "...By the simple expedient of raising the discount rate, London could attract short-term credit and gold from every other center."⁴¹ This theory, too, was of classical origin and was a necessary condition if the standard was to operate automatically.

However, empirical evidence fails to support the idea that the Bank was invariably able to directly and promptly influence gold movements by manipulating the Bank rate. Polk states that in 1847, 1866, and 1873 Bank rates of from 8 to 10 per cent were unable to immediately return gold to the Bank.⁴² Wood reports that in 1844 and 1857, when Bank rate stood at 8 and 10 per cent, gold was being sent to some countries by London and was being imported from others.⁴³ An examination of Table V indicates that relatively high Bank rates did not guarantee an influx of gold nor did low Bank rates mean that gold would leave the Bank.

The reason the Bank of England could not be assured of always obtaining gold from other countries was based on the Bank's position in the international mechanism. Short-term credit was not always forthcoming because Bank rate was the

⁴¹Condliffe, p. 356.

⁴²Polk, pp. 36-38.

⁴³Wood, p. 161.

determining rate throughout the world. An increase in Bank rate meant an increase in money rates in all money markets, a condition which removed the inducement to transfer funds to London.

The assumption made by Condliffe and Hawtrey that the Bank could always attract gold by raising the Bank rate does not depend solely on classical theory. It is based instead on the prominent role of the Bank in international finance. Hawtrey admits that gold would flow into England as a direct result of an increase in Bank rate only if other countries "had gold to spare."⁴⁴ Otherwise foreign countries would be forced to contract credit. He argues, as does Condliffe, that the credit restriction would in turn result in a flow of gold into England. This influx depended on the net change of sterling bills financed in London. Even though importers restricted their purchases as a result of the credit contraction, the outstanding bills would still have to be paid. Since fewer bills would be obtained following the restriction than before, Hawtrey and Condliffe argue that the difference would have to be paid to London in gold.⁴⁵

This explanation of the effect of Bank rate on gold movements is vastly superior to the classical theory and with modifications would appear to be valid. As it stands

⁴⁴Hawtrey, The Art of Central Banking, p. 204.

⁴⁵Hawtrey, Currency and Credit, pp. 138-139; Condliffe, p. 356.

it cannot be accepted as a hard and fast rule. In the first place, it depends on the willingness of foreign countries to play the gold standard game, that is, to agree, at whatever cost, to ship gold to England. In the second place, it fails to take into consideration that merchants could usually meet current obligations only by extending their credit in London. As Keynes points out,

For the payment of these various forms of indebtedness as they fell due, foreign creditors had mainly relied either on renewing them on much the same terms as before, or on turning them into funded debts, or on ultimately shipping goods or international securities to meet them.⁴⁶

All these forms of payment depended to a large degree on credit from London. The situation was intensified by the practice of foreign banks of keeping their excess reserves in London in the form of sterling bills, which drew interest, rather than in gold, which did not. In this manner the gold reserves of foreign countries were held at a level which they considered necessary for liquidity. Under these conditions, "the possibility of diverting gold to London depended upon getting other countries to reduce their preference for gold in favor of other liquid resources."⁴⁷

The extent to which these factors limited the Bank's ability to obtain gold can be readily seen in the events of

⁴⁶J. M. Keynes, "The City of London and the Bank of England, August, 1914," Quarterly Journal of Economics, XXIX (1914-1915), 54.

⁴⁷Wood, p. 162.

1914. Both Keynes⁴⁸ and Wood⁴⁹ attribute the breakdown of the standard to the refusal of London to extend credit to foreign merchants and the resulting refusal of other countries to continue playing the gold standard game.

The Bank's inability to directly control gold movements by Bank rate does not weaken the theory that the Bank managed the international sterling standard. The function of a central bank is to hold the final reserve and to manage the credit system. It cannot enter into competition with member banks for reserves without altering the entire credit structure. Under the conditions which prevailed in the nineteenth century the Bank had to place its gold at the disposal of the world or destroy the system.

The notion which persists even among modern economists that Bank rate was adjusted strictly according to the gold reserve and that it was always effective in regulating the reserve leaves the impression that the international system was at least "semi-automatic." For Bank policy responded passively to impulses from the gold standard and brought about results which could be determined beforehand. The Bank's monetary policy might have been felt throughout the world, but this was due to its unique position and influence. A gold standard governed by natural law remained the final and supreme arbiter.

⁴⁸Keynes, p. 54.

⁴⁹Wood, p. 162.

If the Bank of England was primarily the international central bank during the nineteenth century, this would help explain the apparent inability of economists to adequately define the Bank's role. Indeed, an international central bank operated by merchants could not be evaluated by classical economists for no such bank could exist. An excellent example of the perplexity of this situation may be found in the writings of Bagehot, the much-quoted critic of the Bank. Bagehot was aware of the value of the mercantile experience of the Bank directors:

The mass of the Bank directors are merchants of experience, employing a considerable capital in trade in which they have been brought up, and with which they are well acquainted. Many of them have information as to the character and wealth of merchants, and as to the present course of trade, which is most valuable, or rather is all but invaluable, to the Bank.⁵⁰

Conceding this point, Bagehot explains why the directors were not more adept at carrying on the business of the Bank:

Nobody could expect great attainments in economical science from such a board; laborious study is for the most part foreign to the habits of English merchants. Nor can we expect original views on banking, for merchants, as a body, have no experience in it.⁵¹

Bagehot then sums up what he considered to be the weaknesses and shortcomings of the Bank:

...We have placed the exclusive custody of our entire banking reserves in the hands of a single board of directors not particularly trained for the duty--who might be called "amateurs,"--who have no particular interest above other people in keeping it undiminished--

⁵⁰ Bagehot, p. 214.

⁵¹ Ibid., pp. 173-174.

who have never been told by any great statesman or public authority that they are so to keep it or that they have anything to do with it--who are manned by and are agents for a proprietary which would have a greater income if it was diminished--who do not fear, and who need not fear, ruin, even if it were all gone and wasted.⁵²

In these passages Bagehot, himself a banker of no mean ability, exhibits both a keen understanding of the operations of the Bank and a failure to understand why it could not be made to operate differently. He understood quite well that the Bank directors were not bankers in the ordinary sense, that Bank policy was not subject to any hard and fast rules, and that the Bank was not particularly anxious to maintain a well-filled vault. But customary ways of thinking forced him to accept a priori the Bank as only the central monetary authority of England. Given this assumption, the operation and organization of the Bank were clearly inadequate. For, as Bagehot points out, banking was an occupation best understood by professional bankers instead of merchants. And a first principle of commercial banking was that a watchful eye be kept on the reserves lest they be allowed to drain away.

Bagehot's opinion as quoted here is not a relic of the nineteenth century, for it seems that nearly all modern economists who have written on the subject accept his approach to the Bank if not all his conclusions. Because of

⁵²Ibid., p. 42. Bagehot's emphasis.

this tendency, even those scholars who have made extensive and otherwise excellent studies have apparently done so under the assumption that the Bank was primarily a national central bank.

If the implications of this thesis are correct, it seems that modern economists have failed to discard completely the classical explanation and method when examining the international mechanism of the nineteenth century. Apparently they have accepted the notion that the international gold standard was paramount and assumed that sterling passively adjusted to it. Perhaps Keynes's observation can be extended to cover the case under study: "Contemporary economists, who might hesitate to agree with [J. S.] Mill [that supply creates its own demand], do not hesitate to accept conclusions which require Mill's doctrine as their premiss."⁵³

Perhaps basically at fault is the tendency to separate the study of economic analysis from that of economic history. Ferdinand Zweig writes, "The modern purists, i.e., the followers of so-called 'pure economics,' which is to say economic analysis, have brought this combination into disrepute, asking each economist to choose whether he wishes to pursue economic history or economic theory."⁵⁴ Economics cannot be abstracted

⁵³John Maynard Keynes, The General Theory of Employment, Interest and Money (New York, 1936), p. 19.

⁵⁴Ferdinand Zweig, Economic Ideas: A Study of Historical Perspectives (New York, 1950), p. 41.

completely from its institutional milieu without running the risk of destroying any meaning or order which might have been present.

The End of an Era

From the end of the Napoleonic Wars until the outbreak of World War I, a period of nearly a hundred years, England enjoyed almost continuous peace. This condition was not the result of happy accident. England, by virtue of her extraordinary economic and political power, had been able to maintain a policy of balancing nation against nation. But by 1900 England's economy began falling behind Germany's and the United States' in critical industries. And as her economic power declined relative to other countries, she was no longer able to maintain her political influence.

A few comparative statistics will demonstrate how suddenly England's economic power was overtaken. In 1870 the output of England's iron and steel industry had exceeded the combined output of the rest of the world. By 1900, however, both Germany and the United States were ahead of England in output.⁵⁵ In 1899 Carnegie Steel Company alone produced more steel than the entire British industry.⁵⁶ England's machinery exports declined from 64 per cent of the world's total in

⁵⁵Jones and Pool, p. 186.

⁵⁶Robert L. Heilbroner, The Making of Economic Society (Englewood Cliffs, N. J., 1962), p. 184.

1880 to 34 per cent in 1909.⁵⁷ In addition, many of the new industries, including chemicals, automobiles, and electric power, were being pioneered by the United States and Germany. England's national income remained practically unchanged from 1900 to 1914.⁵⁸ By 1911 the per capita income of Britain lagged far behind that of the United States--\$250 to \$368.⁵⁹

In spite of Britain's declining status in industry and trade the London money market still remained unchallenged in 1914. When the War began, other nations found themselves greatly indebted to London. This indebtedness was primarily in the form of bills of exchange accepted in London and now falling due. As discussed above, foreign merchants had previously relied on credit from the London money market to meet obligations coming due. Because of the War, however, London refused to extend credit to the merchants in 1914. This situation forced foreigners to decide between remitting in gold or defaulting. Since the former course presented a real or imagined threat to their liquidity, most countries chose the latter alternative.⁶⁰

The effect of the breakdown in the remittance system on the London money market demonstrates the intricacy which that system had developed during the nineteenth century. The

⁵⁷Jones and Pool, p. 190.

⁵⁸Thomson, p. 196.

⁵⁹Heilbroner, p. 184.

⁶⁰Keynes, "The City and the Bank," p. 54.

failure of foreign clients to remit threatened, first of all, the acceptance houses, the firms through which London credit flowed into the financing of foreign trade. When the merchants defaulted the acceptance houses were confronted with immediate insolvency.⁶¹ Next, the default constituted a threat to the discount houses which bought the bills from the acceptance houses with funds borrowed from the joint-stock banks. The failure to remit meant that the principle assets of the discount houses were worthless. The joint-stock banks were also threatened. They had regarded the money loaned to the discount houses at call or short notice to be second in liquidity only to their reserves at the Bank of England. This source of liquidity was no longer available to them.⁶²

The crisis was met with the usual English acumen and foresight. The Bank of England agreed to discount all the bills offered and, more important, to accept liability for them.⁶³ This meant, in effect, that the Bank had assumed responsibility for the debt which foreigners had refused to pay. The discount houses and joint-stock banks were quick to avail themselves of the privilege of exchanging assets which were, for the time being, worthless for Bank of England credit. During the three-month period from July to September,

⁶¹Ibid., p. 56.

⁶²Ibid., p. 57.

⁶³Ibid., pp. 60-61.

1914 the Bank's holdings of "other securities," primarily bills, increased from £33,700,000 to £113,800,000.⁶⁴

The London money market, which was to remain the world's most important one for some years to come, was rescued by the Bank of England in 1914, but the international sterling standard was destroyed. The sterling standard broke down when London refused to advance credit to foreign merchants. The gold standard was called into action and it, too, failed when the countries on the standard refused to give up their gold. The international mechanism of the nineteenth century could not be reestablished because it was much more than an international monetary system based on gold and meeting the two or three requirements outlined in standard economic texts. It was an international credit system based on the pound sterling and centered in England. As Brown points out, "...What was really destroyed in 1914 was the high degree of centralization of the world's credit system in London.... That system was not and could not have been restored at any time after the war...."⁶⁵

⁶⁴Ibid., p. 61.

⁶⁵Brown, I, xiii.

CHAPTER V

CONCLUSIONS

This thesis has explored the functioning of the international financial standards of the nineteenth century as part of an historical era, an era in which Great Britain was the dominant power in international affairs. This approach led to a preliminary conclusion that the international mechanism was based on the pound sterling rather than on gold. The problems which remained to be investigated revolved around the operation and control of this mechanism.

In Chapter II it was found that the international system of the nineteenth century theoretically hinged on free trade and the international gold standard. Historically, it seems, neither were of the "natural order of things." England adopted free trade when it became expedient to do so and at a time when she dominated world trade. And, in the same manner, when her position in world trade was threatened, the movement began to abandon free trade. As Thomson points out, "...When it became clear that British agriculture and industry might not be able to compete with those of foreign countries even on the home markets the days of free trade were numbered."¹

¹Thomson, p. 202.

The gold standard, too, was of British origin. It was adopted in England primarily because of the failure of silver. The other trading countries of the world were forced to embrace gold simply because it was England's standard. Not only were these countries forced on the gold standard, but they had to accept it under terms elected by England. This was true because the primary gold market was in London and gold was priced in terms of sterling.

The world-wide adoption of gold as standard money had little effect on the international mechanism, however. The sterling standard was well established when the world-wide adoption took place at the end of the nineteenth century. By the middle of the century sterling had become the medium through which international trade was financed and international payments were settled. The international mechanism, highly centralized in London, was a system in which gold movements were for the most part unnecessary.

The end of the international mechanism, like free trade, was not caused solely by World War I. The major causes are to be found in the nineteenth century. It was during this period that the processes of economic growth began to diffuse the economic power once held almost entirely by England. The international sterling standard required the centralization of power in England, an arrangement which would have soon become impossible even without the War. And, it seems, the gold standard required the sterling standard instead of the

opposite being the case. For when the sterling standard broke down in 1914, the countries on gold refused to abide by the free-shipment rule necessary for an international gold standard.

In Chapter III it was found that the Bank of England came to control the credit policy of the London money market during the nineteenth century. The Bank was founded as a privately-owned firm under a Mercantilist charter and acquired its nineteenth-century functions by an evolutionary process. For this reason it is difficult to measure the extent of control which the Bank exercised over the market at different periods of its development. It seems, however, that this control, primarily by means of the Bank rate, was well developed shortly after the middle of the nineteenth century.

The information gathered in Chapter IV indicates that the Bank was primarily internationally oriented. This was the case because of the Bank's relation to the London money market and the money market's position in the world economy. In this connection the Bank's traditional mode of operation was a source of strength, for custom demanded that the Bank directors be men with considerable knowledge of international commerce and finance. It appears that men with this background were much better prepared to handle the Bank's affairs than professional bankers. If the Bank had been nationally oriented, this might not have been the case.

The international orientation of the Bank apparently has not been taken into consideration in most analyses of the international mechanism. Instead the Bank is usually considered to have been just another central bank which "played the gold standard game" by basing its credit policy on gold flows. Such analyses often lead to the conclusion that gold was of prime importance in the mechanism.

Apparently, however, Bank policy was not determined solely by gold flows but by general and world-wide economic conditions. Furthermore, because of the Bank's connection with the sterling standard, the effect of Bank policy was not merely to equilibrate England's income and prices but to change economic conditions throughout the world. It appears, therefore, that not only was gold insignificant as a direct factor in the international mechanism but was no more important than other factors in determining the state of the sterling standard.

Although no definite conclusions can be reached on the basis of this thesis, it appears that the Bank of England was not an ordinary central bank but was the international central bank charged with the management of the sterling standard. The Bank's main instrument of credit control, the Bank rate, apparently was an administered rate which, instead of being set by market forces, in fact determined the "market" rate of interest. If this analysis is correct, prices set by the international mechanism were administered prices.

It should not be assumed that the Bank gladly accepted the responsibility of managing the international mechanism or even that it was completely aware the responsibility existed. The Court of Directors were not immune to the spirit of laissez faire which filled Lombard Street as well as the whole of England. Nor should it be assumed that the Bank performed perfectly its role as the international central bank. The Bank clung tenaciously to the past, accepting innovation only as a last resort, and then with reluctance and much misgiving.

There is need for further study into the part the "human element" played in the operation of the international standards of the nineteenth century. Since in theory the gold standard was one of the pillars of the laissez faire system of that period, a completely different picture could emerge of that system. Also, it is anticipated that other questions would arise from such studies. For instance, what meaning did the "market" rate of interest have if that rate was administered by the Bank of England? Or, what was the import of international equilibrium if it was an administered equilibrium? These are interesting questions not only from a historical viewpoint but in connection with present-day economic problems and policy.

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