

Working Papers No. 159/12

Money and Monetary System in China in the  
19<sup>th</sup>-20<sup>th</sup> Century: An Overview

Debin Ma

© Debin Ma

January 2012

Department of Economic History  
London School of Economics  
Houghton Street  
London, WC2A 2AE  
**Tel: +44 (0) 20 7955 7860**  
**Fax: +44 (0) 20 7955 7730**

# Money and Monetary System in China in the 19<sup>th</sup>-20<sup>th</sup> Century: An Overview

Debin Ma<sup>1</sup>

## **ABSTRACT**

This article provides an historical overview on the development of Chinese money and monetary regimes between about 1800 and 1950. It develops a simple conceptual framework based on the relative costs of assessing the inherent value of the currencies of different denomination. Based on this framework, I develop a historical narrative that ties important political and institutional changes with the evolving structural changes in the Chinese monetary regime marked by the vicissitudes in the use of copper, silver currencies and paper money in both the private and public financial sectors from the Opium War in mid-19<sup>th</sup> century to the end of the Civil War in the 1950s.

JEL classification codes: E42 E52 N15 N95

---

<sup>1</sup> Thanks to Charles Calomiris, David Chilos, Larry Neal, Kaixiang Peng and Xun Yan for their comments.

## Introduction

In 1889, a Westerner made the following comment on the Chinese currency system: "...Its (the Chinese currency's) chaotic eccentricities would drive any occidental nation to madness in a single generation, or more probably such gigantic evils would speedily work their own cure. In speaking of the disregard of accuracy we have mentioned a few of the more prominent annoyances. One hundred cash are not 100, and 1,000 cash are not 1,000, but some other and totally uncertain number, to be ascertained only by experience. In wide regions of the Empire 1 cash counts for 2, that is, it does so in numbers above 20, so that when one hears that he is to be paid 500 cash he understands that he will receive 250 pieces, less the local abatement, which perpetually shifts in different places. There is a constant inter-mixture of small or spurious cash, leading to inevitable disputes between dealers in any commodity..." (quoted in Kann 1927, pp. 415-6).

Notwithstanding the somewhat prejudicial and exaggerated tone, the statement nonetheless conveys facts closer to reality on the ground. These so-called "chaotic eccentricities" were in fact the shadow of what was meant to be a bimetallic system where one *tael* (or *liang*) of un-minted silver ingot was set equal to one thousand copper cash exclusively minted by China's monetary authority<sup>2</sup>. In reality, however, silver ingots even standardized by weight varied in shapes, purity, fineness, and in the end the *tael* as a unit of account varied by regions and lines of trades. The situation with copper cash fared no better or even worse. The standard copper cash (*Zhiqian*) as minted by the government was by design a currency by count rather than by weight. But being bulky and low in value as individual pieces, copper cash usually of 1000 pieces were strung together to form a unit of account often referred to as a *tiao* or *chuan*. But the *tiao* as a unit varied again by regions or trades. While the number of cash strung in each *tiao* usually ranged between 900 and 1000 in most places, they could be as low as 150 in some regions of the empire. The unit was further confounded by the widespread use of cash of varying qualities or simply private or counterfeited coins intermixed with the standard ones (see Frank King 1965, Zhang 1925).

A third dimension to this bimetallic system was the concurrent use of silver dollars mostly imported from Spanish America. Here again, the spread and popularity of Spanish silver dollars varied by regions with greater penetration in the southern and coastal regions connected with the trade routes of global commodities such as silk, tea or opium. High quality silver dollars such as the Carlos pesos commanded superior reputation and a significant premium over their

---

<sup>2</sup> One tael or liang of silver was roughly equal to 37 grams of silver.

market value in silver. But still, the value of Spanish silver dollars as a medium of exchange often relied on additional chops by local silver assayers as stamps of approval for local circulation. Except for some major trading ports, the presence of silver dollars was negligible in Northern China or the Hinterland.

To satisfy the need for a common unit of account within this perplexing amalgam of currencies, or mixtures of currencies, with exchange rates constantly shifting across time and space (for disparate as well as overlapping regions), imaginary units of account emerged for various trading zones or guilds in China. These imaginary units, mostly denoted in silver *tael*s but sometimes in copper cash or silver dollars, were usually defined by a set of physical characteristics such as the purity, fineness, weight or even shape of the metallic ingots. As these imaginary units often bore no equivalence to any actual currencies circulated in the market, they provided a reliable anchor against which the value of the amalgam of currencies could be ascertained and converted often through professional assayers or money exchangers.

The most prominent cases of imaginary units were, not surprisingly, connected with the empire-wide fiscal system. The Kuping *tael* was a standard unit of silver used for all taxes collected by the central government in Beijing.<sup>3</sup> But even here, the government dictated the terms of transaction in its favour by making the Kuping *tael* unit used for receiving tax revenue slightly larger than that used for paying out expenses. The Kuping *tael* unit in imperial Beijing varied from those used in provinces and counties which furthered differed among themselves (Zhang 1925, p.55-60). Other than these imaginary units connected with national taxation, imaginary units of account for regional and local markets proliferated across the empire, numbering into the hundreds in the early 20<sup>th</sup> century (Dai 2007, chapter 3). All this means that, depending on supply and demand, there existed a nearly infinite set of cross exchange rates among the imaginary units, between the imaginary units and actual currencies, and among the actual currencies (see Frank King 1965, Kaan 1927, Kuroda 2005 for details). Indeed, as poignantly demonstrated by Morse (1910), a single remittance of fiscal revenue from Jiangsu province to Gangsu province via Shanghai could altogether entail nine different conversions of exchanges in different silver units, imaginary and real (Vol. 1, p.29).

---

<sup>3</sup> Other *tael* units connected with government taxation are Chao ping for grain tribute, see Zhang 1925, p. 67. After the mid-19<sup>th</sup> century, a new imaginary silver *tael* unit called the Haikwan *tael* emerged as a standard for customs tax payment for the Maritime Customs, see later in the text.

## A Conceptual Framework

This Chinese monetary system that characterized the entire 18<sup>th</sup>-19<sup>th</sup> centuries and the first two decades of the 20<sup>th</sup> century defies easy conceptualization within existing models of monetary systems. One simple analogy is to liken it to the Medieval European system where multiple currencies and exchange rates proliferated and straddled across a multitude of territories and jurisdiction. The analogy is both useful and misleading as modern China and Medieval Europe shared as many commonalities as contrasts. Indeed, as with any monetary and financial system, political institutions exerted overriding influence, which is where the Europe-China divergence is most sharply distinguishable.

Being a centralized and unitary empire, the Qing China (1644-1911) had a single national minting authority in charge of the production of standardized copper cash. There were provincial mints besides the imperial mints centred in Beijing but they were all regulated in terms of minting standard for copper cash. The bulky and small-denomination nature of copper cash relegated it mostly to small and local retail transactions. Like Europe before the emergence of gold standard, the use of multiple metal-based currencies helped solve the “big problem of small change” in China, with silver acting as the medium for large transactions or long-distance trade and copper cash as small change. But here again the second distinguishing feature of what some referred to as a flexible bimetallic system stood out as the larger unit of account in this metallic mix, silver, was not coined or minted by the Qing authority until about the end of the 19<sup>th</sup> century. To understand the Chinese monetary regime, I propose a simple historical framework based on the interaction of politics and geography in the unique Chinese context.

One great advantage of minted or coined currencies over (un-minted) metallic ingots is that coins reduce the transaction costs of having to constantly assess the inherent metallic value or worth of each piece of metal used in each exchange. But this saving in transaction cost of constantly assessing currency at each exchange concurrently raises the vulnerability of that currency to manipulation either through debasement by the minting authority or counterfeiting by the private sector. Alternatively put, constant assessment of currency, while driving up the transaction costs, also acts as a safeguard against possible tempering of currencies motivated by seigniorage profits.

There existed differentials in relative costs and benefits between large and small denomination currencies: the marginal (or variable) cost of assaying metallic ingots at each transaction for a large-denomination currency would be relatively small whereas the capital loss to holders of large-denomination currency (or capital gains to minting authority) due to tempering with minting standards would be relatively large in comparison with those for small-

denomination currency. Hence, holding everything else constant, the relative benefits of assessing the intrinsic value of large denomination currency outweigh those for small-denomination currency. This may explain the circulation of silver in the form of ingots, whose high intrinsic value (sometimes even in the case of foreign silver coins) needed assessment for each transaction or for different localities, whereas the low denomination copper cash or even their counterfeits circulated in the form of countable currency, which served the very useful function of a medium of exchange for small transactions but with a value (per cash) too low to justify the cost of constant assessment.<sup>4</sup>

The rise and fall of paper notes as a currency in Chinese history would serve as a fine illustration of the problem of politics in the management of large-denomination currency. The potential of printed paper to become a monetary instrument of (infinitely) large denomination was a constant lure to any political authority with enough administrative and coercive capacity. The Chinese empire, endowed with a relatively advanced degree of centralization and absolutism, had long experimented with the large-scale use of paper notes as fiat money in the Song (960-1279 AD), Yuan (1286-1368) and early Ming (1368-1644) eras. But the governmental desire for seigniorage revenue (often prompted by fiscal crises induced by invasions and rebellion) had invariably resulted in over-issuance of paper notes, leading to high inflation or hyperinflation throughout history. These sustained historical episodes of currency tempering driven by fiscal motives severely damaged the reputation of paper money, the issuance of which was often viewed as a bad omen of dynastic collapse (see Lien-sheng Yang). Indeed, the early Ming attempts to force paper notes through the private sector only ended up reducing a large section of the Chinese economy to barter exchange and self-sufficiency. It was partly due to this “currency” vacuum that Japanese and Spanish silver found their entry into China during the 17-19<sup>th</sup> century. Through the well-known Single-Whip fiscal reform in the late 16<sup>th</sup> century, even the Ming imperial treasury itself recognized the benefit of adopting un-minted silver ingot, the Kuping *tael*, as the monetary standard for tax collection, due to the inherent stability of an imaginary unit.

The second complicating factor for China’s monetary system was geography: that is, China’s sheer size. The imperial mandate of a uniform currency matched poorly with the immense local variation resulting from China’s giant size and geographic distance. The unitary and centralized political system also precluded the rise of local autonomous jurisdiction with

---

<sup>4</sup> This is another side of the argument of the “big problem of small change” advanced by Oliver Volckart for explaining the stability of gold currency (the large-denomination) relative to silver (the small denomination) in Medieval Europe (Volckart 2008).

political and legislative power to mint or regulate local money. What emerged to fill (albeit imperfectly) this jurisdictional vacuum across a vast and diverse empire were private rules and customs often generated through guilds or local traditions. The informal nature of these groups and networks and the absence of any overarching or coordinating authority explain the proliferation of currencies or units of currencies, imaginary or real. The result of this complex and unique interaction was a monetary system that perched on a nexus of contradictions that simultaneously harboured both uniformity and diversity, centralization and localization, governmental heavy-hand and laissez-faire, openness and insularity. Evidently, the lack of a clearly defined unit of account and a stable minting standard reflected both the arbitrary nature and limited reach of an absolutist political regime, and in turn, imposed high transaction costs on market exchanges across a vast empire. However, as we will see, these transaction costs may have been a price worth paying in view of imperial China's historical record of low credibility in managing currencies of large-denomination. Below I trace the evolution of this system from roughly 1800 to 1950.

## **1800-1850**

The often touted glorious reign of Kangxi and Qianlong of the 18<sup>th</sup> century corresponded to a century of relative political peace, economic prosperity, population growth, fiscal stability, and most importantly, "cheap silver." In fact, if any difficulty was encountered in the monetary affairs of that century, it was Imperial Beijing's struggle to ensure a steady and reliable supply of copper cash to prevent the copper cash/silver tael exchange rate from drifting too far below the ideal rate of 1000.

The tide, however, began to turn from the end of 18<sup>th</sup> century when the value of silver trended upward, reaching by the mid-19<sup>th</sup> century above 2000 copper cash/tael (see Lin 2006). Traditional historiography or nationalism-fuelled populist sentiment had pointed to the alarming level of opium imports in the early 19<sup>th</sup> century as the main culprit for the balance of payments deficit and the associated silver outflow from China. An in-depth look, however, reveals a far more complex picture on this age of "expensive" silver. Indeed, the collapse of the Spanish American empire around 1820, which led to major disruptions in supply of silver and high quality silver coins, may have just as much do with silver appreciation in China as the opium inflow. It may also be possible that the high quality of Carlos III silver dollars had so deeply penetrated into the trading networks in China's Southeast coast and carried such a premium that silver ingots were drained from other parts of China to overseas to be shipped back as

minted silver dollars (see Irigoien 2009). In this scenario, trade imbalance within the domestic Chinese regions also created disequilibrium in regional money supply.

Silver appreciation had dire consequences for China's fiscal system denominated in silver tael. One natural solution to this silver-induced monetary contraction would have been for China to demonetize silver, a proposition hotly debated among bureaucrats and scholars of the time. But such a monetary reform would require intellectual and administrative capacity beyond the confines of a traditional empire such as the Qing in the mid-19<sup>th</sup> century (see Peng 1965/2007, pp.678-688, Lin 2006). The path that Qing took by banning opium imports led to a direct confrontation with Britain. China's fateful defeat in the so-called Opium War of 1842 heralded an historical turning point when China was forcibly opened to Western Imperialism.

## **1850-1911**

The devastating Taiping rebellion in 1850-60 triggered a major fiscal crisis in Central Beijing. The Manchu ruler's desperate scramble for revenue led to the so-called Xianfeng inflation (during the reign of Xianfeng emperor in 1850-61) generated by the government's massive debasement of copper cash and issuance of inconvertible paper notes. The process under which the Xianfeng inflation unfolded revealed as much about Qing's capacity to coerce as the constraint in her monetary management. With minting limited to copper cash only, Qing's debasement of copper cash was implemented in 1853 by the issuance of the so-called "big cash," a larger and heavier form of copper cash (often referred to as "big cash" in the market). For example, currency with intrinsic copper content equivalent to only two copper cash in the original mint would receive a stamped value equivalent to ten. Inconvertible paper notes were also issued and pushed through the market with the full coercive power of the state. These policies led to immediate market reaction that, upon rumour, caused closure of money shops and capital flight out of Beijing. Public distrust worsened when in the end, even the governmental agency refused "big cash" as payment (see King 1965, Peng 1965/2007 for details).

In a few years' time, both "big cash" and government paper notes suffered steep discounts, with "big cash" trading at a value equivalent to its intrinsic copper content. Both currencies proved to be short-lived, with their coinage ended within three or four years from its start. In Beijing, this simply translated into a permanent nominal adjustment in the units of accounts with a one-time jump of five fold in the nominal price level based on "big cash" units.

The inflationary policy of copper debasement and the issuance of inconvertible paper notes were also largely confined to the capital region and the immediate neighbouring provinces due to Qing's limited political control at the time of Taiping Rebellion (see Peng 1965/2007, pp. 613-623). This new differential between the "big cash" unit in the Beijing region and other regional currency units added further confusions to cross-regional trade during the Post-Taiping Rebellion era.<sup>5</sup>

The opening of China and the subsequent establishment of various treaty ports along China's coast or main waterways were to bring fundamental and long-lasting changes to the Chinese monetary and banking system through the establishments of Western merchant house and later banks that engaged in money exchange and trade finance. Western banks such as the HSBC and later Japanese banks began to accept deposits and issue bank notes convertible into silver, which quickly found favour with the Chinese public in the treaty ports. An important development was the newly established administration of the Maritime Customs, which was in charge of collecting transit taxes for goods shipped in and out of China, as stipulated in various trade treaties imposed by the Western powers. A critical institutional change in the administration of Maritime Customs occurred at the time of the Taiping Rebellion when the actual management of Maritime Customs, nominally still part of the Qing governmental bureaucracy, fell into the hands of Westerners. Led by Robert Hart, the British Inspector General well-trusted by both Western mercantile interests and the Qing imperial government, the Maritime Customs gained great autonomy as a highly efficient and transparent agency of revenue collection. The tax revenue collected by the Customs were often earmarked as collateral for Qing and later Republican governments' public debt subscribed by foreign banks as well as the open market.

Associated with the Maritime Customs is the development of Haikwan *tael*, an abstract unit of silver *tael* that became the nationwide standard unit of account for Customs tax. In contrast to the traditional Kuping *tael*, whose units varied often to the advantage of imperial tax collectors as a source of corruption income, the Haikwan *tael* unit was uniform, carefully defined and negotiated among various treaty powers and the Chinese government. Its unit was on average 5 to 10 per cent larger than various *tael* units prevailing in different localities, as it deliberately excluded any extra surcharges embedded in other *tael* units as a form of

---

<sup>5</sup> Indeed, an imperial attempt in 1883 to restore the copper cash to original units had created chaos among private money shops who were willing to pay premium copper cash to call back their bank notes issued in "Beijing cash" units for fear of the large capital cost of having to redeem their bank notes based on the previous standards of copper cash. See Shao Yi, pp.183-197.

intermediary income for tax collection, which never reached the Central government under the traditional fiscal regime (see Zhang 1925, pp.60-67 and Frank King 1965 for details).

In the latter half of the 19<sup>th</sup> century, the Qing government remained conservative and only engaged in limited reforms to accommodate the new political reality. Indeed, it took another shattering military defeat in 1894-96 by Japan for the Qing to awaken to the need for more fundamental change. The subsequent signing of the Sino-Japanese treaty of Shimonoseki in 1896, which greatly expanded the scope of foreign direct investment and strengthened the political control of foreign business interest in the treaty ports at the expense of China's central authority, had set off two events of epochal consequence to China's monetary and banking evolution. The first was Qing's recognition of the need to set up its own modern bank, which led to the incorporation of the Imperial Bank of China in 1897 (Cheng 2003, p.25). The founding of the Bank itself was actually far less significant than the fact that it marked the beginning of a vibrant era of growth of Chinese modern public and private banks, beginning in the 20<sup>th</sup> century. Secondly, although provincial governments and treaty port authorities started minting silver dollars of their own in the latter half of the 19<sup>th</sup> century, it was only by the beginning of the 1910s that there was a genuine imperial attempt to establish a silver standard and mint a national silver dollar (Wei 1955, p. 119-136). These epochal changes in imperial ideology regarding the Chinese monetary regime took unexpected turns in the 20<sup>th</sup> century following the collapse of the Qing government in 1911.

## **1911-1930**

The devolution of central authority in Beijing to Chinese regional warlords, colonial authorities at various treaty ports, or concession territories characterized the political reality of the Republican era of the 1910s and 1920s (also alternatively termed as the Warlord era). With political disintegration came jurisdictional and economic competition, leading to what D. F. Denzer-Speck referred to as China's unique era of free banking. This era started with major attempts by the fiscally-strapped Republican government to manipulate currency for a fiscal purpose. In 1916, the new Republican government under the dictatorial ruler of Yuan Shikai, when confronted with severe fiscal shortfalls, ordered the suspension of bank note convertibility among the two large governmental banks, the Bank of China and the Bank of Communications headquartered in Beijing. As expected, the order sent shivers through major banking centres across China and led to bank runs and financial disruptions. However, taking advantage of the extraterritorial status of the treaty port, the Shanghai branch of Bank of China, in collaboration

with foreign banks, succeeded in resisting the order and maintained convertibility throughout the crisis.

The rising reputation of the Shanghai branch in the incident further weakened Beijing's credibility and control over China's nascent banking sector. Indeed, under the leadership of the Shanghai bankers, both the Bank of China and the Bank of Communications went through a process of semi-privatization that significantly reduced their ties with the government and transferred control of these banks largely to the hands of private shareholders. The International Settlement area of Shanghai emerged as China's financial centre. The 1920s marked the so-called "Golden Age" of Chinese modern banks. The total capital of Chinese banks, as calculated by Cheng Lin-shen, rose by nearly five-fold between 1911 and 1926 (p.71). They out-competed foreign banks such that by 1936 their share of total banking capital (defined as the sum of notes, deposits and equity capital) in China was 81 per cent, compared to 11% for foreign banks and 9% for traditional native banks (Cheng, p. 78).

The growth of modern Chinese banks led to important changes to the Chinese monetary system. With regard to silver, it saw the spread and prevalence of China's domestically minted silver dollars, the so-called Yuan Shikai dollar over other foreign silver dollars. According to a survey in 1924, out of 960 million silver dollars in circulation, 750 million were Yuan Shikai dollars and only 30 million were foreign dollars (Kuroda 2005, p.114). An intricate relationship between silver dollars and silver *taels* formed during this period. With the increasing popularity of the governmental minted silver dollars, silver *taels* (often denoted in abstract or imaginary units) increasingly acted as a form of bank reserves in major banking centres'. The anchor of silver *tael* in the form of imaginary units served as a crucial safeguard against the possible tempering of various forms of silver dollars or other currencies. The safeguard was institutionalized with the establishment of relatively independent silver assaying bureaus across major commercial cities in China, with Shanghai again leading the way. These bureaus or offices, established from the late 19<sup>th</sup> century, supported by local commercial guilds, banking communities, or local and regional governments, were instrumental in setting up and upholding the local standard of silver *tael* (see Dai 2007, chapter 3).

What emerged in this era of political decentralization was a complex but relatively transparent national system of multiple currency standards (or currencies), which themselves proliferated to over one hundred nationwide (see Dai 2007, pp. 58-79). The financial section of a major daily newspaper for two different dates, 1911 and 1925, as cited by Tomoko Shiroyama, listed bilateral exchange rates of eight to ten different types in Shanghai alone, with their rates fluctuating between morning and afternoon of the same day (p. 24). Proliferation of

standards and currencies naturally raised transaction costs for cross-regional trade, but the newly added features of relative transparency among these standards and exchange rates brought by local regulation and information dissemination also generated momentum for monetary and financial integration nationwide.

Indeed, as the decades proceeded, silver dollars were gradually replacing silver *taels* as a medium of exchange even in rural areas. In agricultural trade, seasonality in the agricultural harvest led to cyclical demand for cash and generated a premium for silver dollars (versus silver *taels*) at peak seasons of the marketing and distribution of agricultural cash crops. Ma Junya's research has documented in detail how a vast network of native banks throughout China transferred both bills and silver dollars across major trading centres to take advantage of the regional differentials in exchange rate (dollars versus *taels*) due to the varying agricultural cycles in China (particularly between Northern and Southern China). Silver arbitrage of this kind, involving mostly native banks, as well as Chinese and Foreign banks, brought needed liquidity to rural markets while simultaneously saving in the use of scarce silver. Overtime, with the use of silver dollars converging for the Yuan Shikai silver dollar, there emerged increasing calls towards the use of a single silver dollar standard delinked from the silver *tael*. In 1933, the Nanjing-based Republican government, with the backing of the powerful Shanghai-based Chinese modern banks, officially established a single monetary standard based on the silver dollar (Dai 2007, p.116-7).

The greatest transformation in China's monetary and financial system occurred with respect to paper money and banking deposits, which was propelled by the rapid growth of modern banking, particularly Chinese banking. Rawski estimated that the share of bank notes and deposits in the total money supply (M1) increased from a little over a third in 1910 to over two thirds by 1926, with a corresponding decline in the share of silver and copper in the total money supply (p. 157). The growth of paper money occurred in the so-called era of "free banking" where private foreign and Chinese banks, as well as Chinese governmental or provincial banks, freely issued bank notes circulating as media of exchange. As expected in a system of competitive and differentiated money, reputation effects would win out over time. Bank notes printed by various provincial banks connected with regional warlords were prone to over-issue, leading to steep discounts and often to complete exit from the market. Banks connected with the colonial authorities of Russia and Japan fared somewhat better and gained wide circulation in their spheres of influence in North-eastern parts of China. Banknotes issued by prominent Western banks such as HSBC and the Chartered Bank (now known as the Standard Chartered) carried good reputations due to their strong reserve position and ready

convertibility to silver reserves and circulated widely in major treaty ports and their immediate hinterland (see Horesh 2009).

By the 1920s, banknotes issued by Bank of China and Bank of Communication grew by leaps and bounds, overshadowing the Western banks. While benefiting from the relatively secure and well-developed legal environment of treaty ports, the growth of banknotes also owed to the successful institutional development of a banknote exchange system where the smaller private modern banks and native banks could pledge their holding of cash reserves and governmental bonds in exchange for an equivalent amount of banknotes issued by these two Banks. This system of banknote exchange, while allowing the smaller banking institutions to take advantage of the reputations of large Chinese banks, contributed to the rapid diffusion of notes issued by these two large Chinese Banks as well as monetary convergence (See Zhang 1925, pp.126-148 for details). As Rawski shows, by 1930, paper notes and bank deposits in Chinese banks had a market share of about 80 per cent. By 1936, Chinese modern banking reached far beyond the treaty ports with a nationwide network of branches amounting to as many as 526 (Rawski, p. 135-6). In many ways, the growth and integration of monetary and financial markets in this era of political decentralization, coupled with the rise of autonomous political power, seems to have replicated the bottom-up growth that occurred across a similar political landscape of early modern Western Europe.

## **1930-1949**

The somewhat accidental adherence to a silver standard allowed China to eschew the worst effects of the Great Depression transmitted under a global Gold standard. In fact, in the early years of the Great Depression, the Chinese economy and exports benefited from the cheapening of world silver and the positive inflow of silver reserves towards China. This, however, was not to last long. With many countries abandoning the gold standard and the US subsequently promulgating the Silver Purchase Act in 1934, silver prices worldwide began to rise, leading to the draining of silver out of China and a deflationary contraction within China. The silver-based monetary crisis of the 1930s bore a striking resemblance to the specter that had haunted Qing China about a century before, which ended with the fateful Opium War. But this time, in close cooperation with the powerful banking community in Shanghai and strenuous negotiations with the US and UK, the Nanjing-based Republican government of China succeeded in the now well-known 1935 monetary reform. The reform established China's first national legal tender, the so-called *fabi*, issued exclusively by the three largest

banks – namely, the Bank of China, the Bank of Communication and the Central Bank – and authorized by the government. By establishing the *fabi* as a fiat money whose convertibility no longer was tied to silver but instead to a basket of major world currencies at fixed exchange rates, China was set on a course to avert the silver-induced monetary contraction, and began to see positive signs of recovery in price levels, production and exports in the next two years.

To make the *fabi* reform succeed, the Nanjing government instituted a set of critical institutional measures, which included the establishment of a Currency Reserve Board, whose members were composed of prominent private bankers, as well as government personnel (Shiroyama 2008, p.186). The government also gradually reorganized the newly established Central Bank to act as a lender of last resort. Through negotiation to borrow foreign reserves from the US and UK, and the sale of its domestic silver, the government consciously built up a reserve base of foreign exchange to back the long-term convertibility of the new *fabi*. Meanwhile, the government attempted to assure the public of its commitment to fiscal balance. The success of the 1935 monetary reform, although curtailed by Japan's full-scale invasion in 1937, was a powerful testimonial to the remarkable progress achieved in the Chinese monetary and banking system during the 1920s and 1930s. The close cooperation and consultation between the finance personnel of the Nationalist government, such as Kong Xiangxi and Song Zhiwen, and the private banking community in Shanghai marked an important departure from the traditional imperial governance model of top-down coercion.<sup>6</sup>

Japan's full-scale invasion of China starting in 1937 gradually stripped the Nanjing government of its tax base and eventually drove the government to China's relatively impoverished Southwestern territory, centred in the new capital of Chongqing. In a time of mounting fiscal crisis, the dark side of China's past experiments with fiat money returned. For a fiscally-strapped Nationalist government in the midst of war, fiat money quickly turned into a fiscal instrument of the state. The hyper-inflation of the late 1940s spelled the end of Nationalist rule, followed by a massive Civil War, out of which a victorious Communist government emerged to create a command economy that eliminated both private markets and money. After a lapse of more than three centuries, the history of paper money in China, as Gordon Tullock aptly termed, came full circle to end in hyperinflation (also see Young 1965 for the era of hyperinflation).

---

<sup>6</sup> See Shiroyama 2008 for a comprehensive and largely positive assessment of the 1935 currency reform. For an alternative assessment, see Brandt and Sargent 1989. Also see Friedman 1992 for a US perspective on the reform.

## Reference

- Brandt, Loren and Thomas Sargent, "Interpreting New Evidences about China and U.S. Silver Purchases," *Journal of Monetary Economics* 23 (January 1989), pp. 31-51.
- Cheng, Linsun *Banking in Modern China*, Cambridge University Press, 2003.
- Dai, Jianbin (in Chinese) *Zhongguo Jindai Yinliang shi* (A History Silver Taels in Modern China). Beijing: Chinese Academy of Social Science Press, 2007.
- Denzer-Speck, D. Freiburg/Br., 2009: "Currency Competition in China Between 1850 and 1950", *Kredit und Kapital*, 42. NO.3 327-351.
- Friedman, Milton, 'Franklin D. Roosevelt, Silver, and China', in: *The Journal of Political Economy*, Vol. 100, No. 1, (Feb., 1992), pp. 62-83.
- Horesh, Niv, *Shanghai's bund and beyond : British banks, banknote issuance, and monetary policy in China, 1842-1937*. New Haven : Yale University Press, 2009. Kann., E. *The Currencies of China*, Shanghai: Kelly and Walsh, 1927.
- King, Frank H.H., *Money and Monetary Policy in China, 1845-1895*. Cambridge: Harvard University Press, 1965.
- Kuroda, A., "The Collapse of the Chinese Imperial Monetary System" chapter 5 in Sugihara, K., ed. (2005) *Japan, China, and the Growth of the Asian International Economy, 1850-1949*
- Irigoin, Alejandra, "The End of a Silver Era: The Consequences of the Breakdown of the Spanish Peso Standard in China and the United States, 1780s-1850s," *Journal of World History* 20.2 (2009): 215-20.
- Lin, Manhong, *China Upside Down: Currency, Society, and Ideologies, 1808-1856* Cambridge: Harvard University Asia Center, 2006.
- Ma, Junya, "Traditional Finance and China's Agricultural Trade, 1920-1933" *Modern China*. Vol. 34, No. 3, July 2008, 344-371.
- Morse, H. B., *The international relations of the Chinese empire* Vol. 1. London ; New York [etc.] : Longmans, Green, and Co, 1910.
- Peng Xinwei (in Chinese), *Zhongguo huobi shi* (A Monetary History of China). Shanghai: Shanghai renmin chubanshe, 1965.
- Rawski, T., *Economic Growth in Prewar China* U. of Berkeley Press, 1989.
- Shao, Yi (in Chinese) *Guoqu de qian zhi duoshao* (How Much was Money Worth in the Past) . Shanghai: Shanghai People's Press, 2010.
- Shiroyama, Tomoko *China during the Great Depression, Market, State, and the World Economy, 1929-1937*. Cambridge: Harvard University Press, 2008.

Tullock, Gordon, "Paper Money – A Cycle in Cathay" *Economic History Review*, Vol. 9, No. 3, pp. 393-407, 1957.

Wei, Jianyou (in Chinese) *Zhongguo Jindai Huobi shi* (A History of Money in Modern China). Shanghai: Qiuliang Publishers. 1955.

Volckart, O. "The Big Problem of the Petty Coins' and how it could be solved in the Late Middle Ages". LSE Economic History Working Papers 107/08, 2008.

Yang, Lien-sheng, *Money and Credit in China, a Short History*. Cambridge, MA: Harvard University Press 1952.

Young, Arthur. *China's Wartime Finance and Inflation, 1937-1945*. Harvard University Press, 1965.

Zhang, Jiaji (in Chinese) *Zhonghua Bizhishi* (A History of Chinese Monetary System). Beijing: Minguo University, 1925.

LONDON SCHOOL OF ECONOMICS

ECONOMIC HISTORY DEPARTMENT WORKING PAPERS

(from 2009 onwards)

For a full list of titles visit our webpage at <http://www.lse.ac.uk/>

**2009**

- WP114 War and Wealth: Economic Opportunity Before and After the Civil War, 1850-1870  
*Taylor Jaworski*
- WP115 Business Cycles and Economic Policy, 1914-1945: A Survey  
*Albrecht Ritschl and Tobias Straumann*
- WP116 The Impact of School Provision on Pupil Attendance: Evidence From the Early 20<sup>th</sup> Century  
*Mary MacKinnon and Chris Minns*
- WP117 Why Easter Island Collapsed: An Answer for an Enduring Question  
*Barzin Pakandam*
- WP118 Rules and Reality: Quantifying the Practice of Apprenticeship in Early Modern Europe  
*Chris Minns and Patrick Wallis*
- WP119 Time and Productivity Growth in Services: How Motion Pictures Industrialized Entertainment  
*Gerben Bakker*

- WP120 The Pattern of Trade in Seventeenth-Century Mughal India: Towards An Economic Explanation  
*Jagjeet Lally*
- WP121 Bairoch Revisited. Tariff Structure and Growth in the Late 19<sup>th</sup> Century  
*Antonio Tena-Junguito*
- WP122 Evolution of Living Standards and Human Capital in China in 18-20<sup>th</sup> Centuries: Evidences from Real Wage and Anthropometrics  
*Joerg Baten, Debin Ma, Stephen Morgan and Qing Wang*
- WP123 Wages, Prices, and Living Standards in China, 1738-1925: in Comparison with Europe, Japan, and India  
*Robert C. Allen, Jean-Pascal Bassino, Debin Ma, Christine Moll-Murata, Jan Luiten van Zanden*
- WP124 Law and Economic Change in Traditional China: A Comparative Perspective  
*Debin Ma*
- WP125 Leaving Home and Entering Service: The Age of Apprenticeship in Early Modern London  
*Patrick Wallis, Cliff Webb and Chris Minns*
- WP126 After the Great Debasement, 1544-51: Did Gresham's Law Apply?  
*Ling-Fan Li*
- WP127 Did Globalization Aid Industrial Development in Colonial India? A Study of Knowledge Transfer in the Iron Industry  
*Tirthankar Roy*

- WP128 The Education and Training of Gentry Sons in Early-Modern England  
*Patrick Wallis and Cliff Webb*
- WP129 Does Trade Explain Europe's Rise? Geography, Market Size and Economic Development  
*Roman Studer*
- WP130 Depression Econometrics: A FAVAR Model of Monetary Policy During the Great Depression  
*Pooyan Amir Ahmadi and Albrecht Ritschl*
- WP131 The Economic Legacies of the 'Thin White Line': Indirect Rule and the Comparative Development of Sub-Saharan Africa  
*Peter Richens*
- WP132 Money, States and Empire: Financial Integration Cycles and Institutional Change in Central Europe, 1400-1520  
*David Chilosì and Oliver Volckart*
- WP133 Regional Market Integration in Italy During the Unification (1832-1882)  
*Anna Missiaia*

## **2010**

- WP134 Total Factor Productivity for the Royal Navy from Victory at Texel (1653) to Triumph at Trafalgar (1805)  
*Patrick Karl O'Brien FBA and Xavier Duran*

- WP135 From Sickness to Death: The Financial Viability of the English Friendly Societies and Coming of the Old Age Pensions Act, 1875-1908  
*Nicholas Broten*
- WP136 Pirates, Politics and Companies: Global Politics on the Konkan Littoral, c. 1690-1756  
*Derek L. Elliott*
- WP137 Were British Railway Companies Well-Managed in the Early Twentieth Century?  
*Nicholas Crafts, Timothy Leunig and Abay Mulatu*
- WP138 Merchant Networks, the Baltic and the Expansion of European Long-Distance Trade: Re-evaluating the Role of Voluntary Organisations  
*Esther Sahle*
- WP139 The Amazing Synchronicity of the Global Development (the 1300s-1450s). An Institutional Approach to the Globalization of the Late Middle Ages  
*Lucy Badalian and Victor Krivorotov*
- WP140 Good or Bad Money? Debasement, Society and the State in the Late Middle Ages  
*David Chilosì and Oliver Volckart*
- WP141 Becoming a London Goldsmith in the Seventeenth Century: Social Capital and Mobility of Apprentices and Masters of the Guild  
*Raphaëlle Schwarzberg*

- WP142 Rethinking the Origins of British India: State Formation and Military-Fiscal Undertakings in an Eighteenth Century World Region  
*Tirthankar Roy*
- WP143 Exotic Drugs and English Medicine: England's Drug Trade, c.1550-c.1800  
*Patrick Wallis*
- WP144 Books or Bullion? Printing, Mining and Financial Integration in Central Europe from the 1460s  
*David Chilosì and Oliver Volckart*
- WP145 'Deep' Integration of 19<sup>th</sup> Century Grain Markets: Coordination and Standardisation in a Global Value Chain  
*Aashish Velkar*
- WP146 The Utility of a Common Coinage: Currency Unions and the Integration of Money Markets in Late Medieval Central Europe  
*Lars Boerner and Oliver Volckart*
- WP147 The Cost of Living in London, 1740-1837  
*Ralph Turvey*
- WP148 Labour Market Dynamics in Canada, 1891-1911: A First Look From New Census Samples  
*Kris Inwood, Mary MacKinnon and Chris Minns*
- WP149 Economic Effects of Vertical Disintegration: The American Motion Picture Industry, 1945 to 1955  
*Gregory Mead Silver*

## 2011

- WP150 The Contributions of Warfare with Revolutionary and Napoleonic France to the Consolidation and Progress of the British Industrial Revolution  
*Patrick Karl O'Brien*
- WP151 From a "Normal Recession" to the "Great Depression": Finding the Turning Point in Chicago Bank Portfolios, 1923-1933  
*Natacha Postel-Vinay*
- WP152 Rock, Scissors, Paper: the Problem of Incentives and Information in Traditional Chinese State and the Origin of Great Divergence  
*Debin Ma*
- WP153 The Finances of the East India Company in India, c.1766-1859  
*John F. Richards*
- WP154 Labour, law and training in early modern London: apprenticeship and the city's institutions  
*Patrick Wallis*
- WP155 Why did (pre-industrial) firms train? Premiums and apprenticeship contracts in 18<sup>th</sup> century England  
*Chris Minns, Patrick Wallis*
- WP156 Merchantilist institutions for a first but precocious industrial revolution;  
The Bank of England, the Treasury and the money supply, 1694-1797  
*Patrick O'Brien*

**2012**

WP157 Hand Looms, Power Looms, and Changing Production Organizations:  
The Case of the Kiryu Weaving District in the Early 20th Century Japan  
*Tomoko Hashino, Keijuro Otsuka*

WP158 From Divergence to Convergence: Re-evaluating the History Behind  
China's Economic Boom  
*Loren Brandt, Debin Ma, Thomas G. Rawski*