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The Rise of a Financial Revolution in Republican China in 1900-1937: an Institutional Narrative

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Abstract

This paper surveys the phenomenal transformation of banking and finance, public debt and monetary regimes during 1900-1937, a period of great political instability in Chinese history. To understand why sectors which are often most vulnerable to the security of property rights and contract enforcement, have become the vanguard of growth in such an era of uncertainty, I highlight the role of institutions as seen in the form of a business dominated quasi-political structure that grew outside the formal political sphere. This structure rested on the institutional nexus of Western treaty ports (with Shanghai being the important) and China Maritime Customs service, a relatively autonomous tax bureaucracy. By ensuring the credibility of repayment of government bonds, this financial-fiscal mechanism laid the institutional foundation for the rise of modern Chinese banks, a viable market for public debt and increasing supply of reputable convertible bank notes during this era of national dis-integration. My narrative carries far-reaching implications on the ongoing great divergence debate.

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Abstract: This paper surveys the phenomenal transformation of banking and finance, public debt and monetary regimes during 1900-1937, a period of great political instability in Chinese history. To understand why sectors which are often most vulnerable to the security of property rights and contract enforcement, have become the vanguard of growth in such an era of uncertainty, I highlight the role of institutions as seen in the form of a business dominated quasi-political structure that grew outside the formal political sphere. This structure rested on the institutional nexus of Western treaty ports (with Shanghai being the important) and China Maritime Customs service, a relatively autonomous tax bureaucracy. By ensuring the credibility of repayment of government bonds, this financial-fiscal mechanism laid the institutional foundation for the rise of modern Chinese banks, a viable market for public debt and increasing supply of reputable convertible bank notes during this era of national dis-integration. Our narrative carries far-reaching implications on the ongoing great divergence debate.

The period of 1900-1937 straddles several sub-periods of a tumultuous era in modern Chinese history. It starts disastrously with Qing's calamitous military defeat by Western (and Japanese) allied forces over the suppression of the Boxer Rebellion in 1901. In the wake of this defeat, Qing embarked on a bold modernization reform in 1905, modelled after Japan's Meiji Restoration, but only to collapse in 1911. China's subsequent Republican era (1911-1949) begins with the Beiyang decades of 1911-27 – also better known now as the Warlord era - ruled by the so-called Northern regime in Beijing. It is followed by the Nanjing era led by the Nationalist government based in the capital city of Nanjing in 1928, only to be disrupted by a full scale Japanese invasion in 1937. The era saw perhaps China's best and worst of times. It had China's first ever – if not the last - genuine experiment with Parliamentary Constitutionalism, a recurring political theme both championed and reprimanded today in China. This was an age of unprecedented openness, the origin of modernity and liberalism, and the beginning of modern economic growth. But for many, it is remembered for its political dis-order, economic dislocation, and profound national weakness and humiliation at the hands of Western imperialism and later Japanese invasion.

This paper offers a survey and assessment on the economic performance of this complex period but with a focus on the banking and finance, public debt and monetary regimes which have seen the most phenomenal transformation. In particular, I aim to explain the puzzle why sectors such as modern banking, which are often most vulnerable to the security of property rights and contract enforcement, have become the vanguard of growth during this era of political turmoil and pervasive uncertainty.

An enduring enigma in Chinese economic history in the context of the Great Divergence debate is the relative under-development of formal banking institutions and financial markets particularly for public debt even in China's most dynamic or stable periods.[1] This enigma can be linked to the so-called credible commitment problem in the political science literature: a government strong enough to definite and protect property rights is also strong enough to abrogate them for its own benefit. One possible solution to overcome this problem in the setting of a strong despot is that of a stationary banditry equilibrium where a stable ruler with long time horizon will protect property rights and enforce contracts for his own self-interest of staying in power. Given imperial China's earlier consolidation and longer duration of the centralized and absolutist political rule with undisputed property rights over people and properties, the stationary banditry equilibrium is of particular relevance.[2]

In the early 20th century, a landmark constitutional reform which aimed at reforming the shortfalls of the traditional polity took off in China but with its unintended and undesirable consequence of setting her on a path of disintegration and disorder. So, throughout the first decades of the 20th century, the Republican China was engulfed by the reverse of the credible commitment problem: the government simply became too weak to provide normal social order let alone implement real institutional reform. Hence, the rise of modern banking and financial market especially for governmental debt offers a fascinating case study. I argue that it was precisely the temporal retreat of a centralized imperial power in China that allowed the rise of a quasi-political structure dominated by business elites. This structure rested on the institutional nexus of Western treaty ports (with Shanghai being the largest and most notable) and Maritime Customs service, perhaps China's first modern and independent civil and tax bureaucracy. The key feature was a financial-fiscal mechanism that ensured the credibility of repayment of government bonds and offered a substitute form of commitment to property rights and contract enforcement.[3] Both these institutions were all intimately connected with Western imperialism and privileges but ultimately were utilized and borrowed by Chinese merchant elites and some enlightened government bureaucrats to lay the institutional foundation for the rise of modern Chinese banks based on a free-banking system, a viable market for public debt, a silver standard increasingly unified under a regime

[1] See Brandt-Ma-Rawski 2011 for a survey on the Great Divergence debate on when and why China was falling behind Western Europe in the early modern era.

[2] For a good discussion on the theoretical framework of the credible commitment problem, see the Introductory chapter to Haber, Razo and Maurer 2003. See Ma 2012 for an exposition on the historical evolution of traditional Chinese political regime in the stationary banditry framework.

[3] See North and Weingast (1989) for the well-known case of Glorious Revolution in 1688 where a constitutional arrangement that placed parliamentary checks on the executive power of the English Crown and in turned provided credible commitment. Also see Stasavage 2016 for a survey on the institutional conditions for the emergence of sovereign debt in Western Europe.

of national coinage and increasing supply of liquidity in the form of private convertible bank notes during this era of national dis-integration.

The rise and fall of this quasi-structure in China during this unique era mimicked the European experience of autonomous city-states as the pioneers of financial innovation. It is consistent with David Stasavage's recent survey (2016) on the connection between the emergence of sovereign debt and rise of autonomous cities in Western Europe politically dominated by merchant elites. Hence my survey here shows that a stationary banditry in the case of a highly centralized Chinese imperial polity, while not necessarily posing a serious impediment to small-scale informal financial institutions, may explain the absence or underdevelopment of large and visible formal financial organizations and markets. This carries far-reaching implications on the ongoing Great Divergence debate.

I divide my survey into three sections followed by a conclusion. The first section provides a brief survey of historical background and economic record for this era. The second section narrates the rise of the Shanghai International Settlement and Chinese banking community. The third section focuses on Chinese Maritime Customs, public debt and monetary transformation in this period.

1. China in 1900-1936: Historical Background and Economic Performance

The onset of Western imperialism in mid-19th century represented a watershed in Chinese history, challenging the economic, political, institutional, and ideological underpinnings of the Qing empire. Western imperialism never subjugated China to full colonization but manifested itself as a series of trading rights, leased territories, treaty ports with extraterritoriality (for foreign business and residents) or spheres of interest in China in the 19-20th centuries. The late-Qing governmental response in the second half of the 19th century was relatively conservative and limited to mostly the modernization of Chinese military through a series of government financed or controlled Western style, capital-intensive industrial enterprises under the banner of Self-strengthening movement (1860-1894). Meanwhile, little was done to support the private sector or promote key modern public infrastructures such as modern railroads and steam shipping in inland waters in the 19th century (Brandt Ma Rawski, 2011).

The 1894-96 naval confrontation between China and Japan became a turning point. China's defeat by a nation long regarded as her one-time student brought a profound mental shock that spelled the end of the Self-strengthening movement and opened the path towards a late-Qing constitutional reform during 1903-11 modeled directly after Japan's more comprehensive Meiji reform. The constitutional reform recognized the centrality of the private sector to a market economy and paved the way for the introduction of modern public infrastructure. But reform was as short-lived as the final years of the empire, which collapsed in 1911. What ensured in the following two decades defy simple classification as there have been at least two political regimes and three different eras: the Northern regime (1911-1925), the period of Northern expedition (1925-27) and the Nanjing regime (1927-37). National disintegration and civil strife seemed to have become the norm of the eras with no single government having effective control over the whole of China during the Republican era (Sheridan 1983, Nathan 1976, Waldron 1995). But the Northern regime, at least until 1923, experimented with China's first ever parliamentary democracy and flirted with the idea of Federalism, something fundamentally antithetical to traditional Chinese political tradition of centralization.[4] In that sense, China, as eloquently argued by Frank Dikotter (2010), has never seen an era as her Republican era, not just in borders and trade, but also in governance and minds. Despite the weakened or even at times dysfunctional political rule, China's so-called Warlord era made great strides in legal reform, upheld the ideal of constitutionalism and achieved admirable diplomatic success in the international arena. There was also greater scope for political experimentation, for the strengthening of local governance, flourishing of civil societies, of free and independent academic and intellectual institutions.

But parliamentary politics Chinese style may also be a recipe for chaos marked by the constant shuffle of governmental cabinets, scandalous vote-rigging and corruption (Nathan 1976, Waldron 1995). With political disintegration, Warlords of different persuasions or fractions brought different degrees of terror and exploitation, through fiscal extraction, the printing of worthless currencies, the kidnapping of rich merchants or prey on the hapless peasantry. According to one estimate, there were some 140 wars fought among a total of more than 1,300 rival militarists between 1911 and 1928. Even those who pointed out the limited extent of warfare damage and existence of enlightened and stable warlords who promoted economic reforms in their territories would have to agree that political unrest and civil wars made any long-range investment extremely precarious (Rawski 1989, Sheridan 1983 and Ma 2008). Arthur Waldron (1995) noted a progressive scaling-up of military warfare that were spilling over to China's most productive regions or even treaty ports under foreign jurisdiction where wealth was concentrated. In the Lower Yangzi, the least war-torn area, the war between the rival Jiangsu and Zhejiang warlords in 1924 led to massive forced requisition of civilian personnel and services, confiscation of private properties, extortion of merchants and business, and severe disruptions of production and trade, inflicting huge economic losses.

Out of these contradictory developments emerged something near to a growth "miracle". The initial impetus may have come from the signing of the treaty of Shimonoseki in 1896 after China's naval defeat by Japan. The treaty granted foreigners the right to

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[4] See Ma 2012 for a framework on the traditional political system in China.

establish factories in the treaty port which opened the floodgate of foreign direct investment in China and indirectly legitimized Chinese modern enterprises. Along with the onset of WWI which led to a temporary withdrawal of Western industrial competition, they set off the first major wave of Chinese industrialization. Activity in mining and manufacturing accelerated sharply from its small initial base from the end of the 19th century, making average nominal annual industrial investment by Chinese nationals in 1914-1925 11 times that of the 1840-1911 (Ma 2008). Despite the importance of foreign investment in Shanghai and especially in Manchuria, Chinese-owned companies produced 73 percent of China's 1933 factory output (Brandt et al 2014). Overall industrial output growth showed double-digit real annual growth during 1912-1936 (Ma 2008). External trade also boomed, rising to a peak of more than two percent of global trade flows in the late 1920s (a level that was not regained until the 1990s). Industrialization led to import substitution and rising product diversity in both internal and external trades (Mitchener and Yan, forthcoming, Wolfgang, Li and Shiue 2012). Meanwhile, public infrastructure improved with China's railway network growing from a paltry 364 kilometers in 1894 to over 21,000 by 1937 (Brandt et al 2014).[5] The puzzle of economic growth in this era has been extensively explored and surveyed elsewhere (Rawski 1989, Ma 2008, Brandt et al 2012). Below, I turn to examine the institutional mechanism for the rise of modern banking and finance which is most sensitive to political institution and contract enforcement mechanism.[6]

2. Shanghai International Settlement and the Chinese Bankers

Shanghai was one of the five designated treaty ports opened up by the treaty of Nanjing signed after the First Opium War of 1842. It grew from a modest market town into a major city under separate jurisdictions of British, French and American Concessions as well as Chinese quarters. In 1863, the British concession merged with the American quarters to form the International Settlement for all Western (and later Japanese) residents while the French Concession remained separate throughout. The governance structure of the Settlement followed that of a Medieval European type of incorporated urban communities where merchant elites practiced self-rule often with charters granted by larger territorial rulers. From its very early days, the Western merchant elites of the Settlement had desired and fought for

[5] Question remains on how much of these impressive achievements in the modern sectors and in major coastal urban centers translate into nationwide improvements. Given the dominant share of agriculture in GDP, national growth rates are less sanguine: even the most optimistic re-assessment of per capita GDP estimates only yielded real annual per capita GDP growth rate no higher than 2% between 1911 and 1936, a respectable but not spectacular rate by the standards of the time. See Rawski 1989, Ma 2008 and See Richardson 1999. Some recent work by Baten et al (2010) do point to an uptick in welfare in the first three decades of the 20th century using indicators such as height and age-heaping (a proxy for numeracy and literacy).

[6] For the large question on economic growth and political instability, see Haber et al 2003 for the case of Mexico, Latin America. See Bates 2004 for the relevance of this issue to Africa.

self-rule against direct administrative rule from the far-flung Imperial capital.[7]

The Settlement organized a Municipal Council whose members were elected by the rate-payers association that consisted of tax-paying Westerners in the Settlement. It operated with its own mini-Constitution: the Shanghai Land Regulations signed with the local Chinese authority in 1854 and subsequently revised in 1866. It Judicial powers over foreign residents were, under the grant of extraterritoriality, vested in the Consular Courts of the foreigners concerned, or, in the case of unrepresented foreigners or Chinese, in the International Mixed Court. The Municipal Council had a right to sue in these courts, and could in turn be sued in a court elected from the Consuls of the Treaty Powers, known as the Court of Consuls. As a general rule, the Council could make no arrests except on a warrant of the proper court. This institutional structure placed the Settlement on a foundation of limited power and rule of law. The Municipal Council levied land and property taxes and business license fees, ran its own prison and police squad with the additional support of a volunteer army in times of need. In comparison with the Chinese quarter governed by the local Qing government, business-dominated Council was far more efficient in the provision of public goods (or semi-public goods) ranging from the maintenance and improvement of city roads, transportation and communication infrastructures, public utilities and port facilities.[8]

The critical phases of growth in the Shanghai International Settlement are intricately linked with major political turmoil within China. The first phase occurred in 1853 when the attack and occupation of the Chinese territory in Shanghai by the so-called Small Sword Society – a branch of the devastating Taiping Rebels – pushed massive number of Chinese refuges into the shelter of the International Settlement and French concession protected by their extraterritoriality. The influx of Chinese residents followed by Chinese business, wealth and entrepreneurship set off a boom to the Shanghai real estate. The outcome is that Chinese formed the overwhelming majority of residents in the Settlement and paid bulk of the taxes but without any formal representation on the Municipal Council until 1928 (Ma 2011, Isabella Jackson forthcoming 2016).

The second critical phase of the Settlement came in 1911 when Qing collapsed. Taking advantage of China's political weakness, both the International Settlement and the French Concession made their greatest territorial expansion to reach 33 square kilometers, 1.5 times the total size of foreign concessions in the other 23 treaty ports in China. When the Qing magistrate in Shanghai absconded during the 1911 revolution, the International Settlement

[7] This is an institutional feature that distinguished from most other treaty ports in China or even the neighboring French Concession, which had been under the administrative rule of the French consular appointed from Paris. For details, see Ma 2011.

[8] See Ma 2011 and especially Jackson forthcoming 2016, Fan Guo 2012, Yang Xiaoyan 2014 on the inner working of the Municipal Council.

took over the Mixed Court and began to appoint its own Chinese legal personnel. By then, the Settlement became a de-facto city-state with full territorial jurisdiction over all its residents, Western or Chinese (Ma 2011). The work by Thomas Stephens on the Mixed Court in 1911-1925 led him to emphatically state that “throughout all the political vicissitudes of the Yuan Shikai era…, throughout all the marching and countermarching of the armies of the warlords and their murdering marauding hordes, … Shanghai remained an oasis of peace, order and good government in a China torn into convulsions by revolution, banditry and civil war (Stephens 1992, pp. 104-6). The 1911-1925 period would mark the heyday of Shanghai and the Settlement. Overall, the population of Shanghai doubled from only half a million in the 1890s, to over a million in the 1910s, and to about 3.5 million in the 1930s.[9]

Beyond security and order, the institutional model of the International Settlement has exerted a profound and lasting impact on political organization, legal regime of property rights and contract enforcement, fiscal structure and civil societies. By taking advantage of the freedom of association and rule of law there, the Chinese merchant elites turned geographic space of the Settlement into a critical staging ground to reproduce the model of Western style mercantile city-state on China’s “extra-territory” in spite of their complete absence of representation on the Municipal Council. Among the most important groups in finance are the Shanghai Bankers’ Association and Shanghai Native Bankers Association which expanded rapidly from the 1910s in the wake of Qing’s collapse. They coordinated collective action, lobbied the Municipal Council, Chinese government and other formal public institutions and disseminated economic information and financial statistics through the publication of professional journals and newspapers.[10]

The Shanghai Native Bankers Association whose origin could be traced to the 18th century made a major expansion in its new location in the Settlement in 1917. The Native Bankers have long been the regulator of the traditional monetary standards in the domestic market, which was a bewildering mixture of silver bullion, foreign silver coins (imported mostly from South America), government minted Chinese copper cash along with some private notes. Native banks are the major financial intermediaries of domestic long-distance in agricultural goods throughout China and use their vast network to transfer bills, notes and silver dollars across major trading centers. They regulated Shanghai *tael*, an abstract unit of silver ingot defined by weight, purity and fineness and publicized daily exchange rates of *tael* versus

[9] By the 1930s, Shanghai alone produced 41% of national manufacturing output (48% if excluding Manchuria), absorbed 46.4% of total FDI in China and 67% of FDI in manufacturing and claimed 47.8% of China’s financial capital. With more than half of China’s foreign trade and one fifth of the Chinese shipping tonnage sailed through her harbor. Shanghai was the commercial, financial and industrial city of China in the early 20th century, see Ma 2008.

[10] See Du 2006 for a detailed and insightful study of Shanghai Native Bankers’ Association.

silver dollars, which reflected short term market demand for silver dollar as a medium of exchange anchored on the intrinsic value of the silver *tael*.[11]

The Shanghai Native Bankers Association played a crucial role in the promotion and diffusion of a Chinese version of silver dollar, minted first by the Beijing government in 1914. In 1916, the Association made a major move to use domestically minted coins - mainly the so-called Yuan Shikai dollars - for their daily *tael*/dollar exchange rate quotations rather than foreign silver dollars. Chinese silver dollars began to spread rapidly as, 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 silver dollars (Kuroda 2005, p.114). Overtime, with the use of silver dollars converging towards the Yuan Shikai silver dollar, there emerged a trend towards a single silver dollar standard (delinked from the silver *tael*) (Ma 2013). As the decades proceeded, silver dollars were gradually replacing silver *taels* as a medium of exchange even in rural areas. The successful adoption of a domestic minted currency greatly enhanced the flexibility of money supply and transparency of currency exchange. New research reveal rapid improvement in monetary integration as measured by the convergence of dollars versus tael exchange rates across major urban centers and sharp fall in sessional fluctuation precisely from 1916 onward (Ma and Zhao in progress).

An even more critical development is the rise of modern banking. In the dying years of the empire, Qing recognized the glaring absence and critical importance of modern banks. The first state-sponsored bank, the Imperial Bank of China, established in 1897, followed the model and regulations of HSBC. The Imperial Bank later morphed into the Bank of China, along with the Bank of Communication, were to form the two most important governmental banks. By 1911, China also saw the establishment of 17 other private commercial banks (Chen 2003, chapter one).

In 1916, confronted with a major fiscal crisis, the nascent Republican government in Beijing, resorted to the printing press for fiscal revenue and ordered the government banks, namely Bank of China and Bank of Communications to suspend paper note conversion to silver, a move that was to bring panic and ruins to financial sectors throughout China. Given these were governmental banks, bank managers who dared to resist the governmental order could be dismissed or replaced. To avert a potential financial crisis, the Bank of China Shanghai Branch managers, after consulting with the Judges of the Mixed Court, instructed several shareholders and depositors to file a symbolic law suit against the bank. The suit itself

[11] The safeguard was institutionalized with the establishment of relatively independent silver assaying bureaus (公估局) across major commercial cities in China, with Shanghai again leading the way. These bureaus or offices, established from the late 19th 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* (Ma 2013)

would bar the Chinese government from removing the managers who were pending a verdict by the Mixed Court, which was under the jurisdiction of the International Settlement (Chen 2003, p. 57). The outcome is that the Shanghai branch of Bank of China along with other Western banks in the International Settlement maintained full convertibility throughout the note suspension period while other governmental banks had to accede to the order and suffer the devastating bank-runs. 1916 marked a turning point when Shanghai – eclipsing Beijing - was to emerge as China's most important financial center. Subsequently, the Shanghai bankers were to play a leadership role in the privatization of these two government state banks by revising the bank bylaws, enhancing the influence of private shareholders over governmental control (Chen 2003, p. 59-62). The shift of these quasi-public banking institutions almost all of which located in foreign concession areas of large treaty ports, towards autonomy and independence from political interference during the entire Warlord era was critical for the growth of modern banking and monetary system in China.

3. China Maritime Customs, Public Debt and the Financial Revolution.

The second key institution - China Maritime Customs – had similar origin and trajectory to that of the Shanghai International Settlement and treaty ports. The low fixed tariffs imposed by the unequal treaties on China by Western powers were initially collected by Chinese customs officials. But when Taiping Rebellion disrupted the function of Chinese customs agencies, foreign consuls set up the China Maritime Customs in Shanghai in 1854 to oversee the collection of maritime trade taxes that would have otherwise gone unpaid. Although an Imperial Chinese organization in name, the Customs became largely autonomous from the Chinese government with Britons dominating the foreign staff of the Customs, followed by large numbers of German, U.S., French, and later Japanese staff amongst others. Promotion of Chinese nationals into senior positions only started in 1929. (Hans van den ven 2014).

Its responsibilities soon grew to include domestic customs administration, postal administration, harbor and waterway management, weather reporting, and anti-smuggling operations. The Service published monthly Returns of Trade, a regular series of Aids to Navigation and reports on weather and medical matters. It also represented China at over twenty world fairs and exhibition, ran some educational establishments, and conducted some diplomatic activities. With over 20,000 people in forty main Customs Houses across China and many more subsidiary stations, it was rapidly evolving to become China's first centralized hierarchic bureaucracy when China herself was descending into political disintegration.[12] The autonomy, efficiency and probity of the Chinese Maritime Customs was

[12] Its outposts had ironically served China's only visible administration in far outlying regions such as Tibet and Xinjiang, where the Nationalist government had yet to exert any form of actual political control, see van den En 2014.

to have long-lasting influence on the Chinese economy. Even under the Nanjing regime, the Customs maintained a certain degree of autonomy, in fact, in many cases, provided an administrative model of efficiency, transparency and political neutrality for the Nanjing government's organization of its own Ministry of Finance (Strauss 1998, chapter 3).

Like the International Settlement, the second critical phase for Maritime Customs came in 1911 when Qing collapsed. Prior to 1911, the Customs exercised no direct control over the tariff revenue collected but rather to only conduct accurate assessment and accounting of the Customs dues and duties collected at various treaty ports. The actual collecting, banking, and remitting of the Customs revenue had been arranged at each port by the Chinese super-intendant (Wright, p. 1). With the collapse of Qing and the impending threat to the security of revenue often pledged as security for governmental debt, the Maritime Customs effectively took over the collection of the Customs revenue and the remittance of the net revenue through negotiation with imperial powers. This development became critical for the subsequent transformation of Chinese public finance.

In traditional China, the nature of an absolutist political regime with unquestioned rights over all properties and people posed a fundamental dilemma to any form of formalized public debt. Indeed, in an ideology "everything under the heaven belongs to emperor", governmental "borrowing" or "repayment" is even conceptually difficult let alone credible (Chen 2003, 106). In Chinese dynastic histories, the piling up of debt by a dynasty was regarded as symbol of bad rule and the portent of a dynasty's end (Van de ven, 2014, p. 136). *De-facto* "borrowing" did happen but often in the form of extortion, forced contribution, selling of offices and status to a small circle of bureaucrats and merchant elites (Ma 2014). Even during the second half of the 19th century domestic public borrowing used to expenditure to quell rebellion and pay off massive war indemnity owed to foreign governments quickly lost credibility and deteriorated into forced contributions and extraction on Chinese wealthy elites (van de ven 2014, chapter 4).

While Chinese government's commitment to repay foreign public debts was more often enforced by the coercive power of Western gunboats, a foreign market for Chinese public debts truly rose through the important intermediary institution of China Maritime Customs, the agency relatively insulted from the threat of the Chinese imperial government.[13] When in 1911, the Maritime Customs directly took over the collection and remittance of the Customs revenue and opened an account with HSBC which eventually became the custodian bank of that portion of Customs revenue pledged as security for the service of the governmental foreign debt, it laid the institutional foundation for a viable market Chinese public debt.[14] It

[13] For the rise of a foreign market for Chinese public debt, see Van de ven, chapter 4.

[14] Initially, two other banks, Russo-Asiatische Bank and Deutsch-Asiatische Bank also served as the Custodian banks. They relinquished their roles following German defeat in WWI and subsequent rise

was this arrangement, as argued by Stanley Wright, that "China, since the outbreak of the (1911) Revolution, not only kept faith with thousands of her foreign bondholders throughout the world, but also to some extent held in check the disruptive forces set loose by the Revolution" (p. 9).

This institutional mechanism was soon to become the cornerstone for a domestic market for Chinese governmental bonds handled through large Chinese public banks who have, as we see earlier, won independence from the 1910s. When the Beijing government set up a relatively independent National Loan Bureau (内国公债局) in 1914 composed of Chinese and Western Bankers and Maritime Customs officials, it is a wholesale borrowing of a full Western practise ranging from accounting to repayment procedures; or as is literally, it needs to be "draped in a Western dress" in order to achieve credibility (Okamoto 1999, p. 381-2). The key practise was for the Bureau to ensure that tax revenue earmarked for debt repayment be directly remitted to special revenue account set up in the Western banks and later to Chinese banks. After weathering the fiscal crisis and the banknote suspension incident in 1916, the original mechanism instituted for public debt repayment came back. Given his veto power over its borrowing, Frances Algen, the new Maritime Customs Inspector General, was in effective control. Algen had lost trust in the Beijing government given her history of raiding Chinese banks for fiscal reasons. From the 1920s, through combined efforts of Bankers' association in both Shanghai and Beijing, Chinese Banks such as Bank of China and Bank of Communications began to play increasingly important role in the operation of public debt anchored on the National Loan Bureau, where all relevant tax revenue (including Maritime Customs) earmarked for the servicing of public debt were placed in the custodianship of the Maritime Customs. This led to the rise of an unusual alliance between the Bankers – Chinese or Western – and the China Maritime Customs (Yan Hongzhong 2015, Okamato 1999, chapter 7 Van de ven chapter 5).

Initially, the Nationalist government, even before 1927 when she established her capital in Nanjing, regularly resorted to forced loans or extortions on wealthy banking and industrial elites for its fiscal needs (see Parks Coble Jr. 1980, p. 35-36 and p. 43-46). From 1928 onward, the new finance minister, T.V. Song, began a policy of cooperation with Shanghai bankers and took over some of the good practices initiated in the Beiyang decade to create a genuine market for government bonds and securities. Indeed, Zhang Jia'o, the Shanghai Banker who had orchestrated the privatization of the main governmental Banks in Shanghai following the 1916 Bank note suspension incident, was said to have admonished Mr. Song that the Nationalist government is better off "establishing the reputation of governmental debt than constantly pressuring the bankers for monetary advance" (Jiang 2003,

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of Soviet Union. Wright, p. 9. For details of this institutional arrangement and banking consortium before WWI, also see Okamoto, pp.376-380 and Van de ven, chapter 4.

pp.236-7). To convince investors of the safety of governmental bonds, each issue was secured on income from a tax source, the most important of which is the Customs revenue. Payments to the bondholders were handled by the Sinking Fund Commission (国库基金保管委员会), which was headed by a private banker and with nine representatives from the Shanghai banking community and five from the government (Coble Jr., 1980, p. 72-3). Each month, the Inspector General of Maritime Customs transferred funds directly to the board of trustees to cover payments secured on the customs revenue while payments secured on other tax revenue were held by the Shanghai Bankers' Association (Coble Jr, 1980, p. 70-78, Wright 1935, chapter one).

Under this institutional arrangement, Shanghai banks became the largest holder of government bonds, holding somewhere between one half to two thirds of Nanjing government bonds at the end of 1931 (Coble JR, p. 74). In fact, governmental bonds became the main portfolio among Chinese banks in Shanghai in general, far outweighing the share going to finance private enterprise (Yan Hongzhong 2015). The successful floatation of government bonds spawned an active primary and secondary market. Although stock exchanges were established in Beijing and Shanghai from 1918 and 1920 respectively, the bulk of the trading of Shanghai Stock Exchange was in governmental bonds which occupied a staggering share of 98% with only 2% in corporate shares and bonds (Yan Hongzhong 2015, p. 116; Coble, p 75-76). Overall, the amount of domestic debts issued in 1927-1931 was nearly the double the amount issued during the entire Beiyang era of 1912-1926. While in the Beiyang era, the share of domestic to foreign public debt was 1 to 7, it became 6 to 4 in the Nanjing decade of 1927-36.[15] This marked perhaps the first time in Chinese history that the Chinese government could tap into the wealth of Chinese elites or even average people for borrowing without the usual coercion and predation.

An important consequence of banks' increased holding of securitized governmental bonds -long misunderstood or neglected – is the rapid increase in the bank's capacity to increase its issue of bank notes and augment lending capacity. China's banking regulations allowed modern banks to use securities – which were composed of mostly governmental bonds – in the range of 40% to serve as reserves for bank notes (Brand and Sargent 1989, p.40). Hence, the credibility of governmental bonds and the functioning of the Sinking Fund became a critical barometer for the reputation of banknotes issued by both public and private banks and to certain degree the entire banking sector. Indeed, the bond market often followed the vicissitudes of the various phases of bargaining between the government and bankers over

[15] Similarly, while foreign and domestic debts accounted for about 21% and 3.4% of total governmental revenue respectively in the Beiyang era, they were about 4% and 27% respectively, see Yan Hongzhong 2015, pp. 111-112.

the control of fiscal revenue and sink fund.[16] In an insightful paper, Brandt and Sargent (1989) invoked the so-called real bills doctrine to explain the close connection between growth in governmental bonds and money supply for this period. They argued that the governmental bond can qualify as a "real bill" as long as there is a firm prospect that sufficient future taxes will be levied to service the debt. With the two major sources being revenue from the Maritime Customs and Salt Taxes, these conditions - certainly before the monetary reform of 1935 - seemed to have been regularly met with both principal and interest payments of various domestic loans having been regularly paid, usually leaving ample balances in the hands of the Sinking Fund Commission (Brandt and Sargent 1989).

Their observation is borne out in Figure 1 which shows that while total species as measured by silver bullion, dollars and copper cash barely registered any increase during 1911-1936, total money supply (M1) which includes species increased at an annual rate of 5% between 1911-16 and 1931-36. This is only possible because the bank notes and deposit components of M1 surged at a remarkable annual rate of 9.5% during the same period. As a result, the estimated share of notes and deposits in M1 money supply rose from 22.3–34.6 percent in 1910 to a minimum of 40.4 percent in 1925 and 83.2 percent in 1936 (Rawski 1989, p. 157). As observed in Figure 1, the turning point marked by an uptick in M1 around 1917-18 corresponds closely to the timing of institutional triumph of Chinese modern banks and the subsequent development of Chinese domestic public debt throughout the 1920s and 1930s. Overall Chinese banks - mostly Modern but also including Native Banks - accounted for the lion share of the growth in this period. The deposits held by Chinese Banks relative to foreign banks increased from about two times in the 1910s to about four in 1930-35. The same ratio for banknotes held by Chinese over foreign banks increased from 1.5 times to about 3 times for the same period (calculated from Rawski, Table C.15, p. 392).[17]

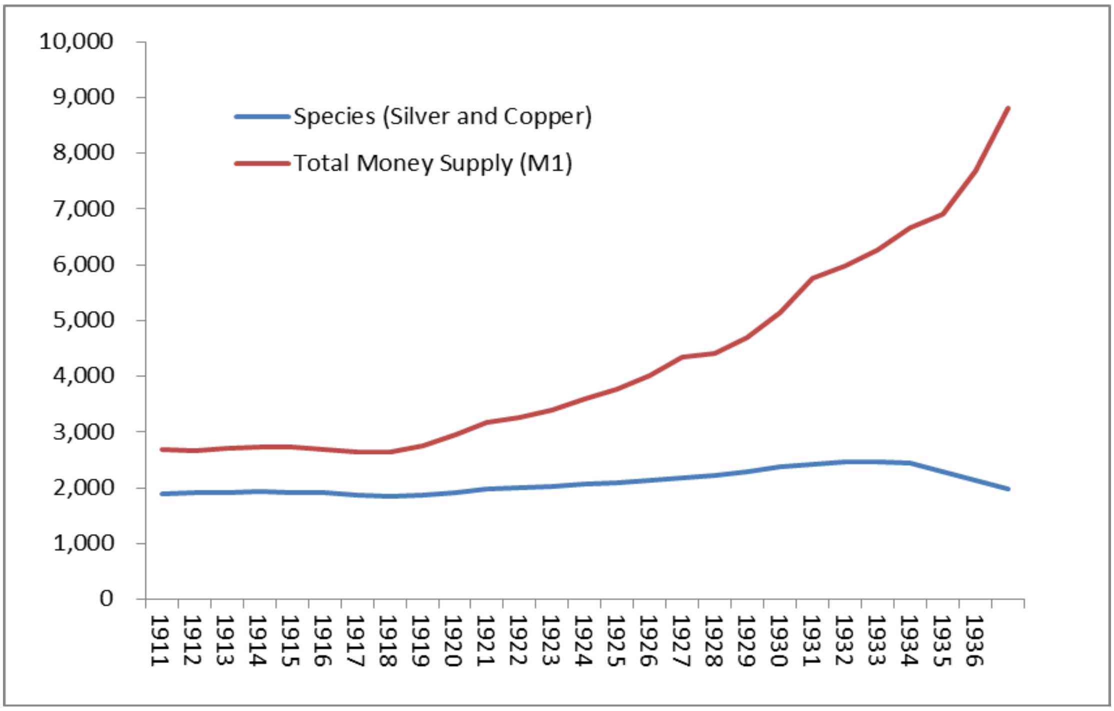
The diffusion of banknotes also accelerated with the innovative arrangements where large note-issuing banks such as Bank of China and Bank of Communications offered their banknotes in exchange for cash and government bonds supplied by smaller financial institutions especially Native Banks (Ma 2013). Further, the expansion of branch networks allowed major domestic banks to "attract deposits from all regions and recycle them to the areas of greatest demand," contributing to the emergence of an embryonic national market for

[16] See Coble Jr. 1980, pp. 90-108, Jiang 2003, Wright, 1935. In particular, see Ma and Yao 2014 on the details of three major debt restructuring in 1921, 1932 and 1936.

[17] These figures are consistent with the so-called "capital power" measure used by Chen Linshen which includes notes and deposits plus capital of the bank. It shows that the share of Modern Banks as measured capital power went from zero in 1894 to 41% and 78% respectively 1925 and 1936 relative to the share for Foreign banks which went from 33% to 37% and 12%. Overall, the capital of a modern Chinese banking sector multiplied at an annual rate of 10.2% between 1897 and 1936 (p. 241). For a statistical test on the co-movement of public debts, bank capital and trading volume of stock exchanges, see Yan Hongzhong 2015.

funds. In the mid-1930s, there were about 160 modern domestic banks in China with over 1300 branches in over 500 localities (Brandt and Sargent 1989, 40; Rawski 1989, pp. 136, 152). The widespread diffusion of convertible banknotes issued by multiple public and private banks, Chinese or foreign, based on reputation mechanism have led to the triumph of what Denzer-Speck (2009) called a Chinese version of free banking in the Republican period. With the minting and diffusion of a new domestic silver coin from the late 1910s onward, Republican China in these three decades had seen the rise of an genuine Silver standard and nothing short of a financial revolution, ironically, in an era of national disintegration. In 1933, when the Nanjing-based government established a single monetary standard based on the silver dollar, this major advance in the monetary system was built on the achievements of two decades of monetary and financial advances.

Figure 1 Species and Money Supply in China in 1911-1936 (in Million Yuan)



Notes: M1 is equal to species plus bank notes and deposits. Bank notes, Silver, Copper currency from Minami and Makino 2014, Table. 5.2.1. Bank deposits data from Rawski 1989, Table c.16, p. 394.

Despite the tripling of money supply total but GDP growth during this period possibly no more than two per cent per annum between the 1910s and 1930s, the price level overall remained stable indicating an increasing monetization for a growing economy (Denzer-Speck 2009, for GDP data, see Rawski, p. 330). The Chinese economy in the early 20th century had a medium of exchange that is liquid, convenient to carry, easy to count and credible, features far superior to traditional currencies which may be poor in quality or quasi currencies such as silver tael that require constant monitoring in weight and fineness. Monetary transformation in the form of increased liquidity generated economy wide externalities by reducing transaction costs, promoting commercialization and supplying capital for financing industrial, commercial agrarian ventures throughout China.[18]

Conclusion

My narrative on the 20th century China offers some revealing insights on the development or lack thereof monetary and financial institution, an issue which have received insufficient attention in the current Great Divergence debate. I show here that the stationary banditry equilibrium along with ruler's unconstrained and arbitrary power in the traditional Chinese political regime was insufficient to sustain the rise of a formal and viable market for public debt which in turn may have partly accounted for overall relative underdevelopment of formal financial institution and market in traditional China.[19] Hence, our findings contribute to the ongoing debate on state capacity and Great Divergence.

The rise of constitutionalism and parliamentarianism in the 1910s, which aimed at correcting the shortfalls of the traditional regimes by bringing about constitutional constraint on the rulers, may have instead partly caused the collapse of the state. The state whose power had once been too intrusive to the security of property rights and contract enforcement had then become too weak to protect them. What arose as an imperfect substitute is a set of new institutions - namely the International Settlement and China Maritime Customs - that had grown outside China's imperial regime to offer some limited form of credible commitment to formal property rights and contract enforcement particularly in public debt repayment. These institutions, though fundamentally Western and colonial, had nonetheless inspired the imagination of enlightened Chinese entrepreneurs and officials who took advantage of them to engineer a genuine financial revolution in early 20th century China. In a sharp departure from the traditional political regime where credibility was placed at the mercy or benevolence of a strong and stable state, this particular institutional mechanism actually placed the burden on a quasi-political structure that had grown autonomous from the central government. Interestingly, while constitutionalism may have failed at the national parliament, Chinese bankers and bondholders who enjoyed some form of security of property rights under this institutional mechanism, have for the first time in Chinese history, attempted at numerous occasions to place constraint on the power of the government with regards to fiscal spending (Coble Jr., 49-57 and 115-125).

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[18] See O'Brien and Palma's recent work showing similar financial revolution emanated from Bank of England in England's post-Glorious Revolution era.

[19] For an alternative view that relative absence of warfare in China accounting for the lack of development in public debt, see Rosenthal and Wong, 2011, chapters 4 and 5.

My narrative on the institutional origin of this financial revolution offers unique lessons to long-term economic change in China. Both the Settlement and Maritime Customs gained strength at similar junctures by taking advantage of Chinese imperial weakness. As semi-colonial institutions, both organizations are rife with Western racism in their exclusion of Chinese elites at least initially. Ironically, it was possibly the mystique of racism or Western supremacy that initially supplied these institutions some form of autonomy from the intrusion of imperial Chinese government. But racism is two-edge sword. The nationalist resentment against imperialism and political disintegration fed into a rising sentiment for political re-centralization that partially led to the success of a Nationalist regime reinvigorated by Soviet military aid and party discipline in 1925-27. The founding of an authoritarian regime in Nanjing in 1928 marks the end of China's short-lived experiment with constitutionalism and the beginning of a move to rein in the autonomous power of Western treaty ports, Chinese bankers and China Maritime Customs from the 1930s. As part of power consolidation, the Nationalist government effectively nationalized major banks in 1935. By removing the one-time check against potential fiscal abuse by the government, it also created conditions for the rise of hyper-inflation in the 1940s, possibly the onset of totalitarianism under the Communist ideologies (Coble Jr., 1980, chapters seven and eight, Friedman 1992, Brandt and Sargent 1989). Hence, nationalism became a two-edge sword.

Our narrative also reveals the dilemma of political and economic reform examined from the *longue duree* of Chinese history. A perennial theme throughout two millennia of Chinese history is the enduring stability of centralized and unitary imperial rule punctured only by episodic political collapse before regrouping towards the next phase of stable unitary imperial rule (Ma 2011). It was often in those brief moments of collapse that large ideological shift - made possible by the introduction of new ideas - occurred before converging towards a new synthesis of a ruling ideology. In many ways, the period of 1900-1937 represents such a temporary moment of suspension from a unitary state, which allowed the massive infusion of institutions and ideologies usually from outside. But often a unitary state had to be re-established in order to stem the collapse often at the expense of stifling future institutional innovation. With the Chinese political regime returning to her centralizing and authoritarian tradition from the 1940s onward, the economic and financial record during this early 20th century Republican experiment offers us a rare glimpse of what an alternative or innovative China could have or could not have accomplished if just temporarily freed from the shackles of unity and centralization.

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