NOT TO BE FORWARDED OR QUOTED WITHOUT PERMISSION
Dollars, digital currency, and 120 years of Chinese central banking
Manny Rincon Cruz
Researcher
Hoover Institution
Stanford University
manuelrc@stanford.edu
This draft: December 7, 2020

Abstract: Over 120 years of Chinese central banking history suggests that China's central banks and adjacent financial institutions have served primarily as instruments of the state's development agenda—though that agenda was defined and redefined by the Qing, Nationalist, and Communist regimes. In light of this history, China's digital currency is bound to be yet another solution to the long-standing Chinese elite agenda of "development politics" and resisting foreign domination. Yes, DCEP will be used to sanction dissidents and allow the CCP to evade US sanctions. But, like predecessor institutions, DCEP's larger mission will be to raise the technological sophistication of the domestic economy and to guarantee the state's ability to mobilize these resources. Combined with AI, big data, ubiquitous connectivity, and the almost complete digitization of economic activity, DCEP will allow the Chinese state to see and manage its society and economy to a previously unfathomable degree.

**Note to readers:** This is a paper that pulls together a diverse range of research I have done over the years. I am still working through the best format for the material—whether as a short article, or a series of more detailed pieces. The main arguments are outlined in the introduction and part 4, which explores the impact of China's digital currency. If short on time, the reader need not feel obliged to read all case studies, found in parts 1-3. After all, this is a study about the continuity of a political agenda across time and regimes.

庖丁為文惠君解牛...

文惠君曰:「嘻,善哉!技蓋至此乎?」

庖丁釋刀對曰: 「臣之所好者, 道也, 進乎技矣。始臣之解牛之時, 所見無非全牛者; 三年之後, 未嘗見全牛也…依乎天理, 批大卻, 導大窾, 因其固然。 | ¹

The cook was dismembering an ox for king Wen...

The king said, "Ah! Admirable! How did your art become so perfect?"

The cook laid down his knife and replied, "What I love is the Way, something more advanced than any art. When I first started, I saw nothing but the entirety of the ox. After three years I ceased to see it as a whole... Following the natural lines, the great crevices, and the great cavities, my knife cuts thus."

#### Introduction

"The cook dismembers the ox" is one of Zhuangzi's best parables. The king's cook recounts how he would dull or chip his knife when butchering oxen, as he "saw nothing but the entirety of the ox" and would cut straight through though muscle and hard bone. But then, by apprehending not just what he understood as "the ox," but rather the reality of the ox, his learned to cut between muscles and joints, such that after 19 years of use his knife remained as sharp as the day he took it from the whetstone.

Chinese financial regulators perhaps lack the skills to dismember oxen, but they certainly have proven adept at butchering a certain horse—Jack Ma 馬雲 (whose name in literal translation means "cloud horse"). In 2011, central bank regulations reportedly forced Ma to slice off Ant Financial—the holding company of AliPay—from the rest of Alibaba and place it into a Chinese-only owned company. This confirmed the fears of foreign investors that their ownership rights were less than guaranteed, "an example of the brazen deprecations and mistreatment that foreign investors can suffer in China." November of this year, regulators announced new rules for digital finance and forced Ant to pull its planned IPO in Shanghai, which had been projected to be the largest IPO in history. 3

The greatest threat to American financial dominance comes from China's rapid advancements in financial technology (fintech), which has been spearheaded by innovative and fast-growing private firms

https://www.scmp.com/comment/insight-opinion/article/1877738/jack-mas-alibaba-haunted-mess-over-alipay; Gerry Shih. "UPDATE 1-At China's Alibaba, chairman Ma's dealings raise red flags," Reuters. May 7, 2014. https://www.reuters.com/article/alibaba-ma/update-1-at-chinas-alibaba-chairman-mas-dealings-raise-red-flags-idUSL3N0NU45I20140508

<sup>&</sup>lt;sup>1</sup> 莊子. 內篇, 養生主. Originally compiled 350 BC-250 BC. Text available at: <a href="https://ctext.org/zhuangzi">https://ctext.org/zhuangzi</a>. The author's favorite is 莊周夢蝶, "Zhuangzi dreams he is a butterfly" (or is the butterfly dreaming it is Zhuangzi?)

<sup>2</sup> Peter Guy. "Jack Ma's Alibaba haunted by mess over Alipay," SCMP, November 11, 2015.

<sup>&</sup>lt;sup>3</sup> Adam Wilhem. "Pulled Ant Group IPO costs Alibaba nearly \$60B in market cap," Techcrunch, November 3, 2020. https://techcrunch.com/2020/11/03/pulled-ant-group-ipo-costs-alibaba-nearly-60b-in-market-cap/

like Alipay and Wepay. In addition, the People's Bank of China (PBOC), has begun trials of a central bank digital currency (CBDC) in an attempt to preempt the launch of the Facebook-backed Diem (previously Libra), and begun promoting the creation of a "blockchain" system of standards, which has been mostly outsourced to a company called Red Date. In theory this new digital currency—called DC/EP, short for digital currency/electronic payment 數字貨幣電子支付—promises to link Chinese fintech worldwide, decouple China from the US-dominated SWIFT system of international payments (thereby avoiding sanctions like the ones that have led Hong Kong executive Carrie Lam to hoard cash at home) and extend Chinese surveillance and censorship around the globe. As the first digital currency by a major country, DCEP in could in theory create a competitive payments space, promote digitization and innovation, strengthen monetary policy transmission, and enable new monetary policy tools such as negative rates. By some accounts DCEP is sign that China continues to build a "modern central banking system," as it signals the continuation of the institutional rise, growing clout, and increasing autonomy of the PBOC during the post-Mao era. Given the stakes in this technological competition—some would say Cold War II—it is perplexing that Chinese regulators would kneecap its best racehorse.

Some commentators think the aborted IPO is a response to Ma's impassioned speech against China's regulations. But this is to put the cart before the horse. Rather, the new fintech regulations had been in the work for months, and Ma's October speech was likely a last-ditch, vainglorious attempt to "burnish his own image and tarnish that of regulators." When it comes to the present and future of China's financial institutions and regulations, history suggests that analysts and commentators are again confusing their idea of the ox with its reality.

\_

<sup>&</sup>lt;sup>4</sup> Niall Ferguson. "America's power is on a financial knife edge." *The Times*. September 15, 2019. https://www.thetimes.co.uk/article/4639d612-d6f8-11e9-b098-ed106f659f8a

<sup>&</sup>lt;sup>5</sup> Huang Zheping. "China-Backed Crypto Guru Wants to Unify World's Blockchains," Bloomberg. July 26, 2020. https://www.bloomberg.com/news/articles/2020-07-26/china-backed-crypto-guru-wants-to-unify-the-world-s-blockchains

<sup>&</sup>lt;sup>6</sup> Adam Taylor. "Hong Kong leader says she has 'piles of cash at home,' no bank account, due to U.S. sanctions," Washington Post, November 28, 2020. https://www.washingtonpost.com/world/2020/11/28/carrie-lam-cash-sanctions/

<sup>&</sup>lt;sup>7</sup> Brenda Goh. "China's proposed digital currency more about policing than progress," Reuters. November 1, 2019. https://www.reuters.com/article/us-china-markets-digital-currency/chinas-proposed-digital-currency-more-about-policing-than-progress-idUSKBN1XB3QP

<sup>&</sup>lt;sup>8</sup> Michael Bordo and Andrew Levin. "Central Bank Digital Currency and the Future of Monetary Policy," Economics Working Paper 17104, Hoover Institution, August 2017.

<sup>&</sup>lt;sup>9</sup> Stephen Bell and Feng Hui. *The Rise of the People's Bank of China: The Politics of Institutional Change.* Cambridge: Harvard University Press, 2013.

<sup>&</sup>lt;sup>10</sup> "China's President Xi Jinping Personally Scuttled Jack Ma's Ant IPO," Wall Street Journal, November 12, 2020. https://www.wsj.com/articles/china-president-xi-jinping-halted-jack-ma-ant-ipo-11605203556

Over 120 years of Chinese central banking history indicates that China's central banks and adjacent financial institutions have served primarily as instruments of the state's development agenda—though that agenda was defined and redefined by the Qing, Nationalist, and Communist regimes. Given this history, it would be incomplete to interpret China's digital currency through the framework of monetary economics or digital authoritarianism, of monetary policy or surveillance. Rather, China's digital currency is yet another solution to the much long-standing agenda of "development politics" and resisting foreign domination. Yes, DCEP will be used to sanction dissidents and allow the CCP to evade US sanctions. But, like predecessor institutions during the Qing, Republican, and Communist eras, DCEP's larger mission will be to raise the technological sophistication of the domestic economy and to guarantee the state's ability to mobilize these resources.

If indeed development politics is the force animating DCEP—and not monetary economics or authoritarianism—then a digital currency issued by the US Federal Reserve or the European Central Bank will not be a sufficient, and perhaps also even a necessary, component of a response to China's financial challenge. Their long evolution into independent monetary authorities makes them unsuited for the work of development politics. A more fitting response would be a deliberate, coordinated technological and industrial policy by the US and Europe—much as those pioneered in the first half of the 20th century. As with Cold War II, the US and Europe could leverage the strengths of their private sectors through public guidance. Already we are seeing some of these benefits. For example, abstraction layers like Plaid's application programming interface (API) are transforming the ossified banking sectors on both sides of the Atlantic into hotbeds of innovation. New companies can now link to our bank accounts without government-mandated standards or expensive integrations with individual banks. Without Plaid we would not have Venmo, Acorns, or Robinhood. Thus, preventing regulatory capture and monopoly is crucial—which is reason to cheer the government's challenge to Visa's \$5.3B acquisition of Plaid. In contrast, regulations restricting the possession and use of Bitcoin and cryptocurrencies, 11 or the proposed ban on stablecoins, 12 serves only to benefit large banking incumbents at the cost of stifling innovation.

<sup>11</sup> 

<sup>&</sup>lt;sup>11</sup> Assistant Attorney General Makan Delrahim said "Visa is attempting to acquire Plaid, a nascent competitor developing a disruptive, lower-cost option for online debit payments... the acquisition would...increase entry barriers for future innovators." In "Justice Department Sues to Block Visa's Proposed Acquisition of Plaid." Department of Justice. November 5, 2020.

<sup>&</sup>lt;sup>12</sup> Joshua Mapperson. "US lawmakers seek to make stablecoins illegal without federal approval." CoinTelegraph. December 03, 2020. https://cointelegraph.com/news/us-lawmakers-seek-to-make-stablecoins-illegal-without-federal-approval



In this paper I first describe the policy debates and internal negotiations around three historical events—the creation of China's first government bank during the Qing, the Imperial Bank of China, the creation of the first "central bank" during the Republican era, the Central Reserve Bank of China, and the reconstitution of the PBOC in the reform era, in particular from the 1990s to today. I draw upon a variety of materials including palace memorials, newspapers, official and private correspondence, diaries, memoirs, and assorted government records. Although these banks are patterned after Western monetary institutions, Qing, Nationalist, and Communist officials reveal a long-running obsession with development and economic control at odds with Western frameworks of central banking. I argue that, much like during the Republican Nanjing Decade, the period of PBOC reform and convergence with Western central banking norms has ended, the victim of leadership anxieties of foreign aggression and technological superiority. I will then explore how DCEP, following a logic similar to that of Qing "Self-Strengthening", can be used to selectively fund, stimulate, and control the process of technological advancement.

## Part 1: Self-Strengthening and Imperial Bank of China

On June 20, 1897, Zhang Zhidong 張之洞, the governor-general of China's southern Hunan and Hubei provinces (called Huguang 湖廣), submitted a telegram to Wang Wenshao 王玟劭, the governor-general of Zhili 直隶, comprised by today's Beijing, Tianjin, and Hebei and Henan provinces in the north. In the telegram Zhang detailed his reasons for refusing to co-sign a memorial to the emperor endorsing the creation of the Imperial Bank of China 中國通商銀行. Although for several years Zhang had advocated for the bank's establishment, he began to question the institution's scope and purpose. "With Western banks, it is easy to discern those run by the government from those run by merchants; I have a general idea of their rules and regulations. But the [Imperial Bank] draft rules and regulations are neither of the government nor of the merchants, and yet are also both of the government and merchants. They are neither Chinese nor Western, and yet both Chinese and Western. It is uniquely difficulty to thoroughly examine their benefits and disadvantages." Moreover, the bank's future general manager would be the Qing official Sheng Xuanhuai 盛宣懷, simultaneously an investor and manager of numerous other government enterprises, including shipping and telegrams, through which he proposed to raise the bank's capital. Thus, to Zhang the bank's formal and informal features raised questions about the proper relationship between state, merchants, industry, and finance.

The Imperial Bank is widely considered to be the first "modern" bank in Chinese history, given its shareholding corporate structure, its hiring of experienced Chinese and foreign managers, and its wholesale imitation of the Hong Kong and Shanghai Banking Corporation's (HSBC) operational and personnel guidelines. And yet, as revealed by Zhang's telegram, it was clear that the bank did not cleanly fit any contemporary "Western" ideas of central banking—that is, as means of financing government debts, standardizing the currency, managing price levels, or serving as lender of last resort.

<sup>&</sup>lt;sup>13</sup> I have rendered 總督 zongdu as governor-general.

<sup>14 &</sup>quot;且西国银行,官开商开判然不同,其章程窃亦闻知大略,而此次原拟章程不官不商,亦官亦商,不中不西,亦中亦西,利弊殊难详审"in "王制台来电,"光绪二十三年五月二十一日[1897.06.20],张之洞全集。7331。

<sup>&</sup>lt;sup>15</sup> Albert Feuerwerker. China's Early Industrialization. Harvard University Press, 1958.

<sup>16</sup> INSERT



Figure 1: Wang Wenshao's base is Zhili, located east from Korea, while Zhang Zhidong's base was just north of Guangdong and the Southern Sea. Sheng Xuanhuai would establish the Imperial Bank's headquarters in Shanghai. (All three locations starred)

During this time, the technologies for producing money were changing and converging the world over. Central banks issuing standard national currencies became more widespread. This worldwide process is often attributed to a confluence of forces including the benefits of territorial monetary convergence,<sup>17</sup> the colonial domination,<sup>18</sup> the spirit of nationalism, or the demands of industrial capitalism. This monetary transformation is thus seen as a prerequisite for transitioning into the liberal world economy of the 18<sup>th</sup> and 19<sup>th</sup> centuries, or "Globalization 1.0".<sup>19</sup> As a result, commentators then and now derided China's "chaotic" monetary world devoid of a standard, state-controlled currency, asking: why was China not ready for a "territorial" and "modern" currency system?

However, the motivation for the Imperial Bank is to be found not in Western frameworks of central or government banking, but in China's unique national dilemmas at the turn of the century. The

<sup>&</sup>lt;sup>17</sup> Eric Helleiner. *The making of national money : territorial currencies in historical perspective*. Ithaca : Cornell University Press, 2003.

<sup>&</sup>lt;sup>18</sup> Emily S. Rosenberg. *Financial missionaries to the world : the politics and culture of dollar diplomacy, 1900-1930.* Cambridge, Mass. : Harvard University Press, 1999.

<sup>&</sup>lt;sup>19</sup> Michael Bordo and Catherine Schenk. "Unusual, Unstable, Complicated, Unreliable and Temporary" Reinterpreting the Ebb and Flow of Globalization," Hoover Institution Economics Working Paper Series, Novemb12, 2019; Niv Horesh. *Chinese money in global context: historic junctures between 600 BCE and 2012.* Stanford, California: Stanford University Press, 2014; Eric Helleiner and Jonathan Kirshner, eds. *The Great Wall of money: power and politics in China's international monetary relations.* Ithaca: Cornell University Press, 2014

1890s and 1900s were a time of drastic political and social change in the Qing Empire. The Anglo-Chinese Opium Wars (1838-1842, 1856-1860) punctured ideas of Qing imperial military invulnerability, only to be followed by the devastation of the Taiping Rebellion (1850-1864), a massive civil war in China's south between Hong Xiuquan's 洪秀全 Christian-inspired millenarian movement and the Qing government. Following the conflict's 20 million casualties, the court directed a program of military, political, and heavy-industrial "Self-Strengthening" 自強運動 or 洋務運動. <sup>20</sup> The logic of Self-Strengthening motivated the state-led creation of China's foundries, shipyards, textile mills, and railroads. The movement lasted until the country's defeat in the 1895 Sino-Japanese War, though similar concerns of national strength and security continued long into the 20<sup>th</sup> and 21<sup>st</sup> centuries.

So while Self-Strengthening provided the framework through which the government understood its foray into the realm of finance, Qing elites still lacked a general consensus about the best ways for the state to raise the sophistication of the economy and increase its ability to mobilize those resources.

Below follows a careful reading of the exchanges, arguments, and compromises surrounding the bank's initial charter submission in 1896 and subsequent court-mandated revision in 1897. What these debates reveal is a deep concern with national strength and security, but disagreements about the prudence of sharing control of vital financial institutions with private capital and entrepreneurs—questions which recur for the next 120 years.

\_

<sup>&</sup>lt;sup>20</sup> Coinciding with the Tongzhi Emperor's rule (同治, 1862-1874), this era is known as the "Tongzhi Restoration."







Zhang Zhidong (left), Wang Wenshao (center), and Sheng Xuanhuai (right)

1896: Iron, Rail, and Banking

The prelude and aftermath of the Sino-Japanese War renewed elites' interest in controlling and expanding vital infrastructure, in particular railroad construction and rights, and by implication iron and steel production. The fear was that if foreigners continued expanding their hold over railroads, as they had ever since establishing footholds in various treaty ports, the country would be vulnerable to invasion or division. This worry was not unfounded, given that different gauges and engineering standards would in effect make several railroad networks increasingly incompatible and spatially segregated by competing nationalities.<sup>21</sup> These concerns animated Zhang Zhidong to stimulate iron and rail production, and pushed Sheng Xuanhuai to create the financial apparatus to support it.

Zhang had long been interested in opening an iron foundry, a project which he began advancing as governor-general of Guangdong and Guangxi. Once he assumed his post as governor-general of Huguang, he moved the operation to his new territory. In 1891 the Hanyang Ironworks 漢陽鐵廠 broke ground, and in June of 1894 began production. However, because of high input prices he soon encountered problems. Zhang wanted Sheng to take charge of the ironworks, thinking that with the latter's commercial experience the enterprise could work around its rapidly depleting capital. His

<sup>&</sup>lt;sup>21</sup> Elisabeth Köll. Railroads and the Transformation of China. Cambridge: Harvard University Press, 2019.

appreciation of Sheng's abilities was a key factor, mentioning to Wang Wenshao that unlike all other officials Sheng did not suffer from six common weaknesses. "Looking everywhere, officials have no commercial sense, trade without regard for our general situation, know foreign affairs but do not understand our political system, are easily cheated by foreigners, undertake serious posts but lack experience, or are haughty yet cannot deliver when they attempt to take charge of all things. This person [Sheng] doesn't have these six shortcomings. If we let him with us two take charge of these affairs, paying attention to all details, we can link north and south, domestic and foreign, state and commerce."<sup>22</sup>

However, Sheng was also a man of ambition. In exchange for taking on the burden of managing the ironworks, Sheng wanted to be appointed general manager of the railroads. Sheng argued that without a higher official position it would be impossible to raise capital. Under Wang's cajoling, Zhang ultimately supported Sheng's petition by co-signing their recommendation to the court in September 2, 1898, which approved the request October 20 of that year.<sup>23</sup>

Once in charge of the Lu Han 盧漢 Railroad line in China's south, Sheng vocalize his conviction that without financial power the railroads could not survive — iron, rail, and banking must developed concurrently. Sheng worried that foreigners, in particularly the English through the Customs official Robert Hard, would succeed in establishing an "Anglo-Chinese Bank" for those purposes. Sheng wrote to Wang and Zhang that "rail's benefits are far and thin, while banking's are near and thick. It is assured that Chinese merchants will certainly want rail and banking to be concurrently developed. If banking rights belong to foreigners, then it will be impossible to raise rail equity."<sup>24</sup>

But Zhang disagreed a few days later that, mentioning that although it would entirely improper for the English to fund rail through their own bank, nonetheless it was not clear yet that the bank and railroad should be developed in tandem.<sup>25</sup> Sheng replied that, as Zhang could appreciate, Chinese equity had already put the railroads under the care of private merchants. Since there was national-level

<sup>&</sup>lt;sup>22</sup> "环顾四方,官不通商情,商不顾大局或知洋务而不知中国政体或易为洋人所欺,或任事锐而鲜阅历,或敢为欺谩但图包揽而不能践言皆不足以任此事。该道(指盛宣怀,笔者按)无此六病,若令随同我两人总理此局,承上注下,可联南北,可联中外,可联官商"。"张香帅致王夔帅,"vol. 24, 愚斋存稿. 23-24, cited in 陈礼茂。

<sup>23</sup> 陈礼茂, 30.

<sup>&</sup>lt;sup>24</sup> "鸡王夔帅张香帅,"光绪二十二年六月十七日 [1896.07.27], vol. 25, 愚斋存稿.5.

<sup>25</sup> 张之洞。"致上海盛道台,"光绪二十二年六月十九日[1896.07.29], 张之洞全集. 7051.

interest in funding a bank for these merchants, establishing institution be a smooth affair. <sup>26</sup> Zhang, however, countered that the rail and bank were "the biggest economic rights of the day, the objects of jealousy." For the government to operate either of them ran the risk of inciting the masses to clamor for the associated profits. For the government to start work on both would certainly turn public opinion against them.<sup>27</sup> In short, public-private partnerships carried risks in the face of which the state should stringently prioritize its projects.

Although Sheng acquiesced on delaying the opening of the bank and separating it as an issue from the railroad, he still went ahead and submitted his "Self-Strengthening Project" to the emperor, which in dealing with military, financial, and educational concerns brought up the matter of the bank. <sup>28</sup> Furthermore, immediately following it with "Request to establish a bank," Sheng elaborated that "commercial affairs hinge on opportunities. Today we have made a great start by establishing the railroads, but if we do not urgently set up a Chinese bank we cannot make use of Chinese commerce's vital energy and prevent being controlled by foreigners." <sup>29</sup> In a second memorial described how finance was crucial to industry. "Banking originated in Europe. Its main purpose is to help circulate the wealth and property within a nation so as to meet the needs of the upper and lower classes." This, however required state involvement. European banking "is protected by the national government, its rights cannot be usurped and its credit can be maintained." Now that China was to build railways, heavy investment would have to follow, and the central government could not go it alone. "Unless we quickly establish a Chinese bank, we shall have no way to circulate the funds which serve as blood in our veins or to stop the control of our economic life by foreign merchants... If Chinese banks secure only one more cent of profit, they will to that degree recover our rights from the foreign banks." <sup>30</sup>

Sheng was supported in these endeavors to bring the bank online by Gong Prince Yixin 奕訢 and Qing Prince Yikuang 奕劻, Li Hongzhang 李鴻章, Wang Wenshao, and, crucially, the Grand Secretary of the Board of Revenue 戶部 and of the Council of Military and Political Affairs Council 軍機處, Weng Tonghe 翁同龢. In addition to being the emperor's former tutor, which gave him a high degree of influence, Weng believed that the only way to raise capital for the railroads would be to rely on a bank —

<sup>&</sup>lt;sup>26</sup> "寄张香帅,"1898.07.30,愚斋存稿。28。

<sup>&</sup>lt;sup>27</sup> "致上海盛道台,"光绪二十二年六月二十三日[1896.08.01], 张之洞全集。7059。

<sup>&</sup>lt;sup>28</sup> Collected works, 3.

<sup>29</sup> 中国通商银行。上海人民出版社, 2000。1。

<sup>&</sup>lt;sup>30</sup> Translation found in Fairbank. "Doc. 53 Sheng Hsuan-huai's argument for Modern Banking, 1896." China's Response to the West.

and if this was indeed the case why not make it a government owned bank? In this way Sheng outmaneuvered Zhang in obtaining speedy approval for the bank, and the latter's opinion that the bank be postponed were much too late.

However, Sheng wanted not only to create, but to control the Imperial Bank, an ambition that required further convincing of top Qing political leaders. The court requested that Zhang and Wang endorse Sheng as general manager of the bank. To convince them, Sheng wrote to both that he had ample support from high officials. Furthermore, he argued that the need to cooperated and interact with officials from government ministries he required a high official position. It also disagreed, countering that Sheng was already over-stretched that adding yet another duty would lead to objections by Qing officials. The Northern Intendant should choose the board of directors and that group should choose their chairman. Wang Wenshao, although he concurred with the need to co-sign with Zhang, thought it would be best if the Board of Revenue and Foreign Affairs Office 總理衙門 first memorialized their own views on the bank and its future leader. But despite Wang's desire for caution, Sheng could not be deterred.

Sheng not only repeated his promise not to monopolize the new bank and his idea that iron, rail, and banking were economically interlaced, he also challenged Zhang's characterization of Western industry, claiming that the clear-cut managerial capitalism that Zhang described did not exist. Instead, capitalists created horizontally-interlocking, mutually-supporting groups of enterprises. "Among Far Western commercial officials there are those who can command the entire nation's commerce, in this system numerous important board-members simultaneously manage banks, railroads, and foundries as long as each company has specialized management and distinct accounts. Like my own steamships, telegraphs, and spinning mills, each business complements but does not mix with the others."<sup>34</sup>

With Weng's support, the Office of Military and Political Affairs approved the bank. Referring to Sheng's plan to place the bank under private management, the office commented that "if conduct is appropriate, then truly it will be beneficial to commerce. [We] make it known that to Sheng Xuanhuai is given the task of selecting earnest merchants, establishing a general board of directors, gathering capital subscriptions, and cooperatively setting in motion [this enterprise] to take [these] economic

<sup>&</sup>lt;sup>31</sup> 陈礼茂,31, quoting "寄张香帅王夔帅,"光绪二十二年十月初五日 [1896.11.09], vol 25, 愚斋存稿。11-13。 <sup>32</sup> Ibid, 13-16.

<sup>&</sup>lt;sup>33</sup> "王制台来电,"光绪二十二年十月初七日[1896.11.11], 张之洞全集。7139-7142, cited in 陈礼茂, 32.

<sup>&</sup>lt;sup>34</sup> "至泰西商务官有统率全国商务者无论矣,其体面,大董事兼管银行、铁路、铁厂甚多,惟各为公司,各有专董,各清各账,如我轮、电、纺织各局,相维不相混,"in "寄王夔帅张香帅,"光绪二十二年十月初八日 [1896.11.12],愚斋存稿。15-16。See 陈礼茂, 32.

privileges."35

Although pleased that the bank had gotten approved, Wang had received a telegram from Xingsun 杏孙 (also known as Chen Changshen 陳昌紳,), a prominent literati and official who had warned that in functioning as an axle or hub for larger enterprises, the bank's conduct would have to be comparatively proper and lawful.<sup>36</sup> The next November day Zhang replied that he "was just thinking that if the bank does not succeed, then Xingsun will blame us both... Today I heard that the call for capital investment will be done by special decree, saving innumerable difficulties. I am extremely happy, honestly. Only the board of directors is crucial. You had telegraphed me to plan putting the South and North Intendancies in charge of filling those posts. Stringent choices could allow choosing a trustworthy clansman from amongst Xingsun's friends to take part in setting down the contracts, ensuring that they aid the railroad. Now we are being instructed to let Sheng make the choices himself, and I don't know what wonderful schemes he has. Moreover, from where are we to raise government funds? Or are we to wait until after Sheng has raised merchant funds to write a memorial? I hope you pass this telegram to Xingsun for a read."<sup>37</sup>

Although ostensibly working together as patron and client, Zhang and Sheng harbored different ideas about the connection between industry and finance and between state and merchants. By the end of November of 1896 the bank had received approval and Sheng, having succeeded in becoming head of the bank and tying it to the railroads and ironworks, began preparations to raise the necessary capital. A month later the bank's powers were further expanded when it was granted the authority to mint silver coins. Was China on the cusp of a central banking revolution?<sup>38</sup>

#### 1897: Power, State, and Merchants

Yet despite Sheng's initial victories, the political winds would soon turn in Zhang's favor. Like

\_

<sup>35 &</sup>quot;银行一事前交部议,尚未定局。昨盛宣怀条陈,有请归商办之议,如果办理合宜,洵于商务有益,著即责成盛宣怀选择殷商,设立总董,招集股本,合力兴办,以收利权。钦此"

<sup>&</sup>lt;sup>36</sup> "杏孙庚电想已接阅。此事做此定局,当轴亦甚用心,照此办理似较合法。尊意如何,仍希赐教。""王制台来电,"光绪二十二年十月初九日[1896.11.13],张之洞全集。7145。

<sup>37 &</sup>quot;正虑银行不成,杏孙归咎于我两人不肯推毂,今闻招商出自特旨,省却无数周折,欣幸之至,非虚语也。惟总董最为紧要,弟前电拟归南北洋派充,饬举则可选与杏孙亲切可信之戚族充之,与立合同,令其协助铁路公司。今旨令盛自选派,不知渠有何妙策。再,官款何以不提?或待盛招商后奏请耶?此电望转杏孙一阅。""致天津王制台,"光绪二十二年十月初十日 [1896.11.14],张之洞全集。7144。

<sup>38</sup> See"清政府批准中国通商银行鼓铸银元谕旨,"1896.12.6。盛宣怀档案资料选辑之五。35-36。

Zhang, various political actors soon voiced doubts over the scope of the powers granted to the bank and the degree of the government's support, eventually forcing a Sheng to limit his vision for the Imperial Bank.

In February of 1897, the Foreign Affairs Office and Northern Intendancy officials questioned the bank's plans for managing accumulated losses, the appropriateness of headquartering in Shanghai, the dividend rate it would pay to the central government, its banknote reserves, the level of government supervision, and the potential for government borrowing.<sup>39</sup>

Just as Sheng was beginning to respond to these inquiries one of the court censors raised more serious challenges to the project. 40 On April 12, 1897 Guan Tingxian 管廷献 submitted a memorial titled "Proper Precautions against Bank Official Malpractice," which outlined five main amendments to the bank charter. 41 First, the bank could not dub itself a bank of "China" but would need a name that distanced it from the government; second, capital lent by the Board of Revenue had to be assigned collateral and guarantors; third, official remittances had to be handled in silver; fourth, the bank's merchant shareholders' association could not comment on other government enterprises such as gold mines; and fifth, if the bank was in arrears the government would not step in to rescue it. 42

A week later the Guangxu Emperor requested that Wang, Sheng, and Zhang jointly submit a proper response to the censor's objections. Zhang stalled, and the final memorial was not submitted until well over three months later. On June 20 he responded to Sheng and Wang that the imperial request to carefully reconsider the bank's regulations required a resoluteness of opinion which he did not have. It was then that Zhang elaborated his point that the bank was a confusing institution, a mixture of Western and Chinese, government and merchant characteristics. He concluded that "Xingsun has thought about this long and hard and has no need for the rash thoughts of a bystander [such as myself]."

Wang offered that both he and Zhang needed to sign a memorial detailing their response given their involvement in promoting the bank thus far. Although they were required to address Xingsun's comments, the memorial did not specify *how* they should respond. Moreover, Zhang continued, "having

<sup>&</sup>lt;sup>39</sup> 陈礼茂,33。See also 王玉德、郑清、付玉 [Wang Yude, Zheng Qing, and Fu Yu]。招商局与中国金融业 [The Search for Private Capital and China's Financial Industry]。浙江大学出版社[Zhejiang University Press],2013。

<sup>&</sup>lt;sup>40</sup> Censors (御史) were charged with supervising the behavior of the court and other senior officials of the empire.

<sup>&</sup>lt;sup>41</sup> Titled《银行官设流弊宜防》. See 张之洞全集. 1251。

<sup>42</sup> 陈礼茂. 33。

already been drawn into the matter by the issue of the railroad, it is only proper that we see this matter from beginning to end and push it to completion. If there are other problems that arise or things don't go smoothly, I fear that outsiders will endeavor to slip in and the general situation will become unfavorable."<sup>43</sup> The bank proposal's wording, he stated, was the real issue; the language had to be revised carefully, and perhaps negotiated with Guan himself to guarantee his support.

Zhang claimed to have been convinced by Wang's message and attended his memorial drafting sessions. However, during these meetings he forced comprises with Sheng. First, note issuance could not exceed 90 percent of capital. Second, every half year the bank would be subject to inspection by a member of the North and South Intendancies. Third, and perhaps more significant for the purposes of interpreting his thought on central banking, he deleted the phrase indicating that the bank intended to mint silver coins. His stated reasoning was that "minting currency is the prerogative of the country. This bank is to be opened by merchants, how could it [be allowed to] mint? Today thirteen provinces are engaged in minting, so even if the bank were to mint it would be of no benefit." <sup>44</sup>

On July 16 the three submitted the memorial "Obeying the Emperor to Jointly Examine the Bank's Pros and Cons, while still Requesting Merchant Operation and North-South Intendancy Inspections as to Protect Economic Rights,"<sup>45</sup> within which they carefully responded to Guan's five comments. The bank would retain the use of "China" in its name, but would append "Commercial" 通商 to indicate the role of private capital and its purpose. Each of Guan's other suggestions were accepted: remittances would be in silver, government funds would have a suitable merchant guarantor, the shareholding merchants would not interfere in other government enterprises, and if in arrears the bank would not implicate the central government. Furthermore, Zhang's three amendments were included: note issuance would be limited to 90 percent, every half year the bank would be inspected by Intendancy officials, and the bank would not establish its own mint but outsource requests to provincial authorities. Had Zhang finally come closer to his vision of a proper and useful government bank?

\_

<sup>&</sup>lt;sup>43</sup> "我等既因铁路汲引之,似宜始终护惜,俾底于成。若有他事,稍有参差,恐外人承隙而入,转于大局有妨,"in "王制台来电,"光绪二十三年五月二十一日[1897.06.20],张之洞全集。7331。

<sup>44 &</sup>quot;银行事弟实系外教,故拟不列衔,兹承尊命,谨当附骥"in "致天津王制台,"光绪二十三年五月二十九日 [1897.06.28]。Ibid, 7337.

<sup>&</sup>lt;sup>45</sup>张之洞,"遵旨会同核议银行利弊拟请仍归商办并由南北洋稽查以保利权折",光绪二十三年六月十七日 [1897.07.16],张之洞全集。1251。 This document is incorrectly cited in various secondary histories, including in 陈礼茂, as being on June 16, though this is likely due to a mistake in lunar-solar calendar conversion.

## Aftermath and the end of empire

Both Sheng Xuanhuai and Zhang Zhidong agreed that industry and infrastructure were key to national strength and security—they both frequently invoked foreign threats in their policy debates. Yet they disagreed about the relationship between finance and industry, the powers that should be granted to financial institutions, and the terms of public-private engagement that governed them. As the Imperial Bank was being established in 1896, debates about the connection of finance and industry were most prominent. Issues of financial prerogatives and state involvement emerge to the fore during the period of revision in 1897. Sheng only belatedly pushed for the creation of a central bank on the Western model, under American guidance, because a new treaty with the US had created the opportunity to set up a bank capable of financing vital industries—not because he believed in the monetary economics frameworks dominant in the West.

Sheng and Zhang stood on opposite poles of several intellectual dimensions. Sheng believed that the state should harness the power of private merchant capital if the dynasty was to regain its status in Asia and the world, thus favoring vigorous merchant participation in partnership with the state. Zhang, on the other hand, believed that the state itself was capable of funding key enterprises; private capital could play only a supplementary role, given that it brought its own set of problems. This is not enough to classify Zhang as a statist and Sheng as a liberal. Their divergent views on the role of merchants encompassed not only different beliefs about the propriety of public-private enterprises, but about the role of finance in the broader economy. Sheng's idea of the relationship between industry, infrastructure, and finance was one of vital interdependence. "Today because of the ironworks we cannot abstain from running the railroads, and then because of the railroads we cannot abstain from running a bank."46 Operating one implied operating the other. For Zhang, on the other hand, a government bank was an accessory that might help enterprises to develop faster or to overcome difficulties, but in the long-term imposed the burden of dividend payments and profitability. Furthermore it was Sheng that favored granting the Imperial Bank broad powers – a generous issuance of banknotes, the right to mint silver coins, the exclusive privilege to remit provincial taxes to the capital, to act in the name of the country, and to float loans on behalf of the central government. Zhang, in contrast, wanted to limit the ability of merchants to guide the bank's affairs, did not wish for the bank

<sup>&</sup>lt;sup>46</sup> "今因铁厂不能不办铁路,又因铁路不能不办银行。"盛宣怀。"寄王夔帅,张香帅,"[To Wang Wenshao and Zhang Zhidong] 光绪二十二年十月初八日[1896.11.12],vol. 25, 愚斋存稿[Records of Sheng Xuanhuai], 文海出版社有限公司 [Wenhai Publishing], 1975.15, quoted in 陈礼茂。

to have minting rights, certainly did not want banknote issuance to exceed paid up capital.

By 1900 Sheng Xuanhuai had succeeded in linking finance, industry, and war in the policy debates. He memorialized to the emperor that "The Shanghai textile mills, the Hanyang Ironworks, the Pingxiang Coal Mines, and the Imperial Bank of China, which are managed by your servant, are all founded on investments by the Chinese shareholders in the China Merchants Company and the Telegraph Administration out of their income from these two enterprises." After China's defeat after the Boxer Rebellion in 1901, he negotiated a treaty in 1903 with the United States, Britain, and Japan establishing a Chinese obligation to create a unified currency. This new currency would facilitate foreign commercial activities in the treaty ports and smooth the Boxer Indemnity payments that China now owed the victorious Eight-Nation Alliance. The US Congress dispatched a three-person financial mission to craft a currency reform plan on the gold standard. Although the plan remained unrealized, China still bore a treaty obligation to three foreign powers to introduce a uniform currency unit. Moreover, since at least 1902 the central government had established a mint for minting silver dollars, a practice it had encouraged other provinces to follow.

In 1905 the Board of Revenue set up the DaQing Bank 戶部大清銀行 (today's Bank of China) to centralize the collection and distribution of government revenues, one of the Imperial Bank's original prerogatives negotiated in 1897, as well as to begin minting a standard, central government silver coin, which the Imperial Bank had been earlier banned from doing. As part of the New Policies 新政 administrative restructuring, a movement in which Zhang was prominent, five new boards were created in 1906. The new Board of Post and Communications 郵傳部, in charge of railways, posts, steamships, and telegraphs, created the Bank of Communications 交通銀行 in 1908 to fund buying back the rights to the Beijing-Hankou rail line 蘆溪鐵路, whose construction the Imperial Bank was supposed to have funded a decade earlier. Sheng led this Board from January 16 to October 26, 1911. However, neither the Imperial, Daqing, nor Communications banks achieved a dominant role in the financial markets or a monopoly on currency and credit.

<sup>&</sup>lt;sup>47</sup> Feuerwerker. "Studies in the Economic History of Late Imperial China." pp 201-202.

<sup>&</sup>lt;sup>48</sup> The treaties were ratified January 13, 1904.

<sup>&</sup>lt;sup>49</sup> Since they are almost identical in language, I cite the American Treaty for Extension of Commercial Relations below: "China agrees to take the necessary steps to provide for a uniform national coinage which shall be legal tender in payment of all duties, taxes, and other obligations throughout the Empire by citizens of the United States as well as Chinese subjects. It is understood, however, that all customs duties shall continue to be calculated and paid on the basis of the Haikwan tael." FRUS 1903, pp 98. The text and importance of the British MacKay Treaty can be found in Frank King's "History of the Hong Kong and Shanghai Banking Corporation."

<sup>50</sup> The bank is the third largest in China today.

But even before then, in late 1910, he had asked the American legation to coordinate a loan and sending a financial expert approved by US banking interests as "he intended to give Americans the preference."<sup>51</sup> He eventually negotiated a loan with a Euro-American banking consortium to fund railroad construction and issue a new silver-standard national currency.<sup>52</sup> Lastly, although China experienced a reversal in its positive balance of payments starting in 1898, the silver crisis did not repeat.

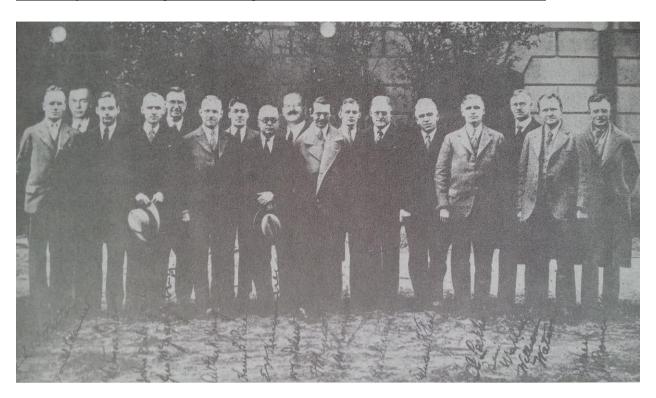
Zhang and Sheng pursued, respectively, policies of separating or amalgamating the state's monetary powers, which in a new political environment produced yet a different institutional constellation. Zhang sought to address different economic problems with different institutions — a standardized currency would be produced by different state mints, state revenues would be handled by the DaQing Bank, and communications infrastructure by the Communications Bank. In contrast Sheng, negotiated the 1903 Treaty, the product of which was an American government-sponsored plan for an orthodox bank-managed currency—but which he planned to use as a general tool for Self-Strengthening.

.

<sup>&</sup>lt;sup>51</sup> The American Minister [Calhoun] to the Secretary of State. American Legation, Peking, September 22, 1910. FRUS 1912, pp 89-90. "By order of the Board of Finance and with the approval of the Prince Regent, the Vice President of the Board of Communications, Sheng, has just called upon me to ask if American bankers would be willing to undertake a loan of about fifty million taels in order to elaborate the currency reform. Such a loan would be secured on unpledged customs and likin, amounting to between five and six million taels annually. Sheng asked if our banking interests could not send someone here, as he intended to give Americans the preference... Sheng requests a prompt answer as to the attitude of our financiers, and due weight should be attached to his words as he has been called to Peking for the express purpose of directing the currency reform. Calhoun."

<sup>&</sup>lt;sup>52</sup> The "Currency Reform and Industrial Development Loan Agreement of April 15, 1911," authorized the issue of gold bonds and required the Chinese Board of Finance to provide, as conditions for the loans, a program for currency reform, authorized by imperial edict, titled "The Regulations for the Unification of the Currency on a Silver Basis," which was based on the Board of Revenue's earlier gold-based blueprint.

Part 2: Republican strength, American guidance, and the Central Reserve Bank of China



In 1929, Princeton professor Edwin W. Kemmerer led a group of young economists and financial specialists, at the invitation of the China's new Nationalist government, to overhaul China's currency, fiscal, and customs laws. Before getting to work, however, they walked in procession one summer morning in Jiangsu, following the elaborate state funeral being given to Sun Yat-sen 孫中山, the founder of the Nationalist Party (KMT) and father of the nation. The Kemmerer Commission's legacy was uncertain and limited—the Nationalists were ideologically hostile to economic liberalism, and its reforms were also crafted for a gold-standard world soon to perish in the Great Depression. The KMT had received Russian Bolshevik guidance and assistance from 1921 until Chiang Kaishek 蔣介石, the party's new leader after Sun's death in 1925, dismissed all Soviet advisors in 1927. After purging the Chinese Communist Party (CCP) and other leftists from his political coalition, Chiang built a decade-long relationship with Nazi Germany, from which he received important economic and military support. And so although the Commission's fiscal rationalization, gold currency, and reserve banking draft laws were announced with great fanfare, they were left perpetually unfulfilled and formally designated as confidential state materials until the mid-1930s. Support is a group of the community of the mid-1930s.

<sup>&</sup>lt;sup>53</sup> Donald Lorenzo Kemmerer, The life and times of professor Edwin Walter Kemmerer, 1875-1945, and how he became an international "money doctor". Self-published, 1993. 91

<sup>&</sup>lt;sup>54</sup> William C. Kirby, Germany and republican China. Stanford: Stanford University Press, 1984; 14/09/1934, Box 43, Arthur N. Young Papers. Stanford University: Hoover Institution Archives

Nonetheless, because the commission coincided with a period of relative economic and political stability, it inaugurated a moment when the Nationalists could rethink the country's financial infrastructure. But Nationalist leaders, in particular Finance Ministers T.V. Soong 宋子文 and H.H. Kung 孔祥熙, sought to build an extensive government system for providing financial services, aiming to increase their political authority, augment the country's geopolitical standing, and forge a "modern" nation from the legacy of the Qing empire. On the other hand, American specialists were motivated by intellectual and reputational commitments derived from professional economics and its liberal assumptions. For the most part, the specialists sought to foreclose theoretically "improper" initiatives, which in part explains the rise of formally "liberal" but substantively interventionist central banking and regulatory system that evolved during this time. Ironically, the Nationalist system prefigures important Communist reforms of the 50s, in particular the provision of insurance, agricultural credits and technical assistance through an all-encompassing "central bank," pursued when American economic theory fell out of favor. 55

#### 1929: The specialists

A core team of specialists stayed after the 1929 Kemmerer to shepherd the Nationalist reform agenda alongside Western-trained Chinese economic specialists. To Arthur N. Young, one of Kemmerer's former PhD students, the mission to China offered a chance to build professional prestige, noting also that ``it would be interesting to have the experience of working on the finances of the oldest and most populous country in the world." It also offered Arthur the opportunity avoid incoming President and former Commerce Secretary Herbert Hoover, which whom he had a history of disagreement. So At just 37 years old, Arthur would serve as the official financial advisor to the Nationalist government and as the most senior member of a new, permanent group of specialists. Fenimore Lynch joined the Central Bank of China (CBOC), serving under another specialist, Currency Bureau vice-chief Hsi Te-Mou 席德懋, a 1912 economics PhD from Birmingham University. In 1932 Hsi established the CBOC's remittance department, and in 1934 became the CBOC's Business Bureau chief. Oliver Lockhard joined the Finance Ministry Inspection and Currency Bureaus, headed by fellow specialist Jian H. Chen 陳行, an Ohio University graduate who was briefly president of the Central Bank of China (CBOC) and its vice-chairman until 1938. They were joined by the British Cyril Rogers from the Customs Administration and Soong's younger brother Soong Tse-Liang 宋子良. So

<sup>&</sup>lt;sup>55</sup> For example, insurance was not broken out from the PBOC until 1984. 李守榮. 中國金融體系概論. 1993, 20-21, 104-129. See also Haiqun Yang, *Banking and financial control in reforming planned economies*. Basingstoke: New York: Macmillan; St. Martin's Press, 1996. chapter 1; Also 李茂生. 中國金融界購研究. 1987.

<sup>&</sup>lt;sup>56</sup> Arthur Young, Truman Library Oral History, 20-21

<sup>&</sup>lt;sup>57</sup> In Chinese language sources, His and Jian variously addressed also by the courtesy names, 席健後 and 陳健庵

They worked in a bureaucracy staffed with Western-trained economists. Ma Yinchu 馬寅初 is specially worth mentioning. Ma was a 1914 Columbia PhD, and in 1928 was a professor at Shanghai Jiaotong University and a member of the Legislature 立法院. He was also Chen's confidant, especially when the latter spearheaded the 1936 Central Reserve Bank project, discussed further below. This is the dynamic under which the Nationalist leadership and their financial specialists would pursue their sometimes conflicting, sometimes reinforcing agendas.

# *Ideology of a strong state*

The Kemmerer Commission's 1928-1929 term coincided with the inaugural years of the new Nanjing regime. Perceiving itself to be in an environment of intense international geopolitical competition, the Nationalists sought to pursue intense state-led industrialization and political centralization above all else. This was a practice firmly rooted in the imperial past and contemporary political ideologies. The Qing had attempted state-managed heavy industrialization, expanding on a long tradition of state-entrepreneur cooperation and entanglement to set up semi-private banks, iron works, cotton mills, and telegraph companies. <sup>61</sup> In the aftermath of the empire-ending 1911 revolution, economic statism came to embody aspirations to "modern" national strength, especially after Kung became Finance Minister.

Immediately after Chiang conquered Beijing, Soong became Finance Minister and organized the National Economic Conference 全國經濟會議 to elicit support from China's capitalist elites. The agreements reached at that conference, such as establishing a uniform currency and ending forced lending to the government, were forcefully advocated by economic elites at the subsequent government National Financial Conference, which gave Soong the political capital to move these reforms through the party's Fifth Plenum meeting. <sup>62</sup> Soong would ally with left-leaning Wang Jingwei 汪精衛 and Chen Gongbo 陳公博. Wang, premier between 1932 and 1935, led the new National Economic Council 全國經濟委員會 and promoted fiscal rationalization, economic centralization, but freer commercial development.

<sup>&</sup>lt;sup>58</sup> Excluding economists working on railways, the Salt Administration, and government research units, there were an estimated 209 Chinese economists in Nationalist leadership before 1950. C.f. Paul B. Trescott, *Jingji Xue*: the history of the introduction of western economic ideas into China, 1850-1950. Hong Kong: Chinese University Press, 2007. 110

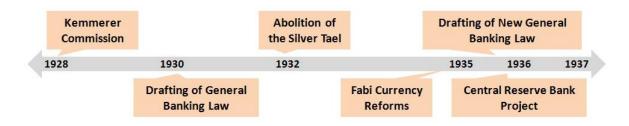
<sup>&</sup>lt;sup>59</sup> Ma would become president of Peking University under the communist government in 1951 and serve until his removal in 1961 after being branded a "rightist." Trescott, 69-70, 226-227.

<sup>&</sup>lt;sup>60</sup> "陳行致馬寅初函" 04/03/1936. 洪葭管. 中央銀行史料 1929.11-1949.5. 2005.

<sup>&</sup>lt;sup>61</sup> There were a host of official-management, merchant-operated enterprises, known as the Guandu Shangban system 官督商辦, many of which were set up by prominent official Sheng Xuanhuai 盛宣懷

<sup>&</sup>lt;sup>62</sup> The National Economic Conference was organized in June, and the National Financial Conference in July. For a thorough description of Soong's role in these meetings see Margherita Zanasi. *Saving the nation : economic modernity in republican China*. Chicago: University of Chicago Press, 2006. 81-101

However, Soong's increasing tensions with Chiang would lead Kung to succeed him as Minister of Finance in 1933 while ongoing Japanese military pressure would strengthen the case for prioritizing the national military. In contrast to his predecessors, Kung believed that ``the function of state has broadened from the simple preservation of order and protection of private property to the promotion and direction of all the varied and multifarious interests of a modern complex society." More importantly still, ``the improvement of the financial and economic condition will hasten the process of political unification" while centralized political power will allow launching further reforms. Kong detailed numerous policies, ``parts of a developing comprehensive scheme aiming at the financial and economic reconstruction of the nation," among which are regulation of banking, credit and currency, state ownership and control, subsidies, industrial policy, wage controls, and deficit infrastructure spending. In short, ``China, more than any modern state, must work out a planned national economy." 64



1930-1934: The General Banking Law and "proper" central banking

Two projects illustrate the potential for conflict between the specialist knowledge and the regime's broader political agenda. The 1930 drafting of the General Banking Law 銀行法 led to the specialists being locked out of the policy-making process. In turn, a change in the political balance of power in 1934 allowed the specialists to block Soong's attempts to modify the CBOC's mandate. The general banking law increased government control over the CBOC, while in 1934 Soong sought to provide insurance and premium government bonds through it as well. Both are part of an agenda of greater government control over financial markets and, insurance provision in particular, prefigure later Communist initiatives.

In the early 1930s, Soong was appointed vice premier of the Executive Yuan in addition to his role as Minister of Finance, allowing him to catalyze discussions of a General Banking Law along the lines explored in the 1928 Economic and Financial Conferences. The Legislative Yuan had begun the drafting process, and Soong wanted to supplement the Currency Department's comments with an opinion from

<sup>&</sup>lt;sup>63</sup> The Mudken Incident of 1931 had led to Japan's invasion of Manchuria. In the 1932 Shanghai Incident Japan attacked China's main commercial center.

<sup>&</sup>lt;sup>64</sup> "National Planning for Financial and Economic Reconstruction." 1934. Box 13 Folder 3-4, Reel 16. H.H. Kung Archives. Hoover Institution Archives, Stanford University.

Arthur Young and Fenimore Lynch. However, the two experts believed the Legislative Yuan's approach was fundamentally mistaken and unsound. As the Kemmerer Commission was itself one of the Ministry's initiatives, Young and Lynch thought the matter of banking reform had been resolved in 1929.<sup>65</sup> They replied to Soong in December, 1930:

"If they [the legislators and Currency Department] have had access to our project, the question arises why they have departed so far from it. The present proposal is less complete than ours and omits certain safeguards which we proposed. Our Commission's project, as you know, was modelled [sic] upon banking laws which represent the best experience in the United States and other countries. If our project was at hand, why was it thought advisable to proceed on such a different basis? If there were difficulties about adopting any of the proposals in our project, it would appear that the best way to proceed would have been by suggesting amendments as deemed advisable." 66

The new law was not criticized on moral or political grounds but, in the American style, as technically deficient. Young and Lynch went so far as to refuse to comment on the draft since "Detailed criticism... would involve loss of effort if a detailed study of the present project were made before the points which I have raised have been cleared up." For specialists not yet accustomed to prioritizing the domestic and regional geopolitical concerns of the Nationalist leadership, ignoring technically impeccable advice was confounding at best.

When Kung replaced Soong as Finance Minister in 1933, the specialists were more capable of acting on their theoretical prejudices. Even though no longer head of the Ministry, Soong still wished to push forward his own agenda of financial reform. He outlined for the specialist team an increase in the capital of the CBOC, the issuance of premium bonds, and the creation of an insurance agency within the CBOC. A February 1934 memo signed by Young, Lynch, and Chen makes it clear that they will do such things. They portray the capital increase as an attempt to increase government borrowing dangerous to the bank's solvency. The CBOC will only lend out, to the government or anyone, only if "secured by the highest grade collateral." They likewise reused to issue high premium bonds on behalf of the government, likening them to the "national lottery," which should be handled by the Loan Department of the Finance Ministry: "We feel that it is inadvisable for the Central Bank of China to be concerned

<sup>65</sup> The reforms submitted to the government were comprised of several "Projects of Law" found in Edwin Walter Kemmerer . China Ganmo'er she ji wei, yuan hui 財政部甘末爾設計委員會, Harvard University Archives. There are: 1. Gradual Introduction of a Gold-Standard Currency System in China, 2. Increasing the Customs Revenue from Import Duties, for Simplifying Import Duties, and for the Eventual Abolition of Customs Duties Levied upon the Internal Trade of China, 3. Setting Up a Department of National Debt within the Ministry of Finance, 4. Placing Customs Duties on Imports from Abroad upon a Gold Basis, 5. Dealing with Financial Planning, Budget Preparation, Budget Enforcement, Accounting, Fiscal Control, Supervisory Inspection and Audit, 6. Creation of the Central Reserve Bank of China, 7. Public Credit Rehabilitation Law, Together with a Report on the National Debt of China and the Rehabilitation of China's Credit.

<sup>&</sup>lt;sup>66</sup> ANY to TVS. 30/12/30. Box 46. Arthur N. Young Papers

with the issuance of any obligations publicly circulated other than ordinary banknotes. We feel that the issuance of such bonds is not a suitable function of a central bank."

On the matter of insurance, however, the appeal to "proper" economic theory is more evident-banking and regulatory functions should be separate, central banks should be independent, and bureaucratic clarity is paramount. "We feel that the handling of insurance is beyond the scope of the activities of the Central Bank. Insurance is a very specialized subject, and we suggest that if the Government should desire to have an agency of its own for handling of any branches of insurance, such agency should be separate from this institution." This is a theoretical argument, not an empirical one \_ there was no evidence on which anyone could then call to support the case against central bank-provided insurance.<sup>67</sup>

Conflict shaped the specialists' relationship with Soong most strongly, in some ways contradicting historical perceptions of his having been more economically liberal than other KMT leaders. Moreover, the outcome of conflict determined which proposals could move ahead and potential reshaped China's financial institutions.

## 1935: Currency reform

KMT leaders could subordinate the specialist agenda in moments of crisis, when geopolitical imperatives allowed the Nationalists to dictate the general direction of reform. Because China had no centrally controlled currency and operated on a de factor silver standard, the quick succession between the 1934 Shanghai financial crisis, the US Silver Purchase Act, and the 1935 Paper Currency Reforms provided such a crisis. Given Soong's role foreign relations at this time and the international dimensions of the financial crisis, he would play a decisive role not only in stabilizing the silver market but also in particular the composition of the currency basket backing the new national currency. The specialists did, however, manage to include a clause in the reforms providing for the creation of a central reserve bank, the basis of later reforms they hoped to more strongly influence.

-

<sup>&</sup>lt;sup>67</sup> ANY, JHC, FBL, to TVS. 19/02/34. Box 46. Arthur N. Young Papers



The crisis has roots in the 1920s depreciation of silver and ensuing asset boom, which triggered excess capital flows into real estate, specifically the highly liquid Shanghai International Concession. Similar to bank lending and investment patterns before the 2008 American financial crisis, a constant safe rate of appreciation led banks to accept real estate as collateral for increasingly larger sums of money.<sup>68</sup> Thus, even a brief slowdown in Shanghai real estate prices would make a number of important banks and bankers insolvent.

Problems arose as country after country left the gold standard during the Great Depression, lowering the price of gold relative to silver. The US Silver Purchase Act of 1934 further boosted relative silver prices through federally mandated purchases, as can be seen above. <sup>69</sup> The rise in silver prices stopped China's price inflation, slowed the rise of real estate prices, and triggered a crisis in a number of Shanghai banks. The Nationalist regime thus aimed to break the link between the currency and international silver prices, confiscating silver stocks nationally and replacing them with inconvertible government-issued bank notes.

China faced diplomatic pressure on the geopolitical front. First, the Japanese saw institutional strengthening as a threat to their ambitions in Asia. The America Treasury was concerned from the start about assisting the Chinese with a currency reform loan, fearing that doing so would upset Japan in

<sup>&</sup>lt;sup>68</sup> Shiroyama, 140-167

<sup>&</sup>lt;sup>69</sup> Data from Global Financial Database (GFD) further sources are; London Silver Price: Larry Neal, The Rise of Financial Capitalism, Cambridge: Cambridge Univ. Press, 1990. New York Silver Cash Price: Lawrence H. Officer, "What Was the Price of Gold Then? Importance, Measurement and History," EH.net. The monthly prices for the U.S. are taken from George F. Warren and Frank A. Pearson, World Prices and the Building Industry, New York: John Wiley and Sons, 1937 for the period 1910 through 1933 and from the Commodity Research Bureau, Commodity Yearbook, Chicago: CRB since 1933.

addition, of course, to facing domestic opposition to interference with the Silver Purchase Act. <sup>70</sup> Japanese policy became even more aggressive after the reforms were enacted. Within a year of the reforms currency exchange \_raids" began to destabilize the market, unsettling the confidence of the public and foreign governments, and triggered by a Japanese strategy not handing over silver stocks to the KMT government and facilitating the smuggling of silver out of China. Additionally, the Chinese ambassador to Japan was informed by the Japanese Military Attache in Shanghai that the Japanese military in China was absolutely against the Chinese currency reforms. One major reason or criticism is the Japanese allegation that the reform represented a secret treaty between China and England. <sup>71</sup>

Second, this Japanese misconception was triggered in part by British pressure, namely the visit of Sir Frederick Leith-Ross, a director of the Bank of England sent to China to advise on currency reform between September 1935 and June 1936. Ultimately the matters of reform were decided by the Chinese. In these matters Soong played a dual financial and diplomatic role, directing the Chinese ambassador's communications with Treasury Secretary Morgenthau while simultaneously planning an independent Chinese currency at home, decoupled from any great power. Commenting on a draft of the 1935 reforms, Song notes that Finance Vice-Minister Dr. Y.C. Koo顧到羣 is correct in suggesting linking the new currency to that of "a creditor country, in order to avoid exchange fluctuations and to facilitate borrowing from abroad." He considers the US to be the better, long-term choice between sterling and the dollar, but fears a possible "inflationary experiment" driven by domestic political pressure. Nonetheless, he remains optimistic, observing that it is possible to secure the industrial advantage of financial ties with the US, while preserving financial stability because "If ever it appeared that inflation in the USA was reaching a dangerous point, China could then vary the dollar rate, or even go on sterling."

The KMT presented a surprisingly united front on the issue of reforms, carrying out policies that were anathema to the specialists, especially in light of their stance in 1934 against heterodoxy. Backed by Kung and Chiang, Soong assumed the post of chairman of the Bank of China in April, 1935 in preparation for the final reforms October of that year later, and participated in the broader government takeover of the banking sector. In November 1935 the KMT carried out a banking "nationalization," in

<sup>&</sup>lt;sup>70</sup> FRUS, 1935

<sup>71 &</sup>quot;國駐日本大使館向行政院的報告." 09/12/1935 found in 魏辰民(編選者). *日本隊國民黨政府法幣政策的態度*.中國第二歷史檔案館. For more on the Japanese attitude to the currency reforms see 陳嗚鐘. 試論 1935, 1936年中日會談. 民國檔案, 1989年,第2期.

<sup>&</sup>lt;sup>72</sup> Niv Horesh. "Whitehall vs Old China Hands: The 1935236 Leith-Ross Mission Revisited." Asian Studies Review. 2009.

<sup>&</sup>lt;sup>73</sup> "Notes on Y.C. Koo's currency reform memorandum." Box 5 Folder 12 Reel 5. T.V. Soong Papers. Stanford University: Hoover Institution Archives

which the KMT used unsold government bonds to increase the capital of the major banks on the pretext of assuaging a liquidity crisis, in the process acquiring majority ownership over the Bank of China and the Bank of Communications. As a result, the four government banks came to hold \$3.1 billion in assets in contrast to the \$968 million held by the largest seven private banks.<sup>74</sup>

The 1935 currency reforms, by dint of their entanglement with Nationalist geopolitics, rose in political importance and escaped the grip of the specialists. These reforms are particularly instructive for understanding that financial institutional creation can be a highly political process, and that bureaucratic specialists often do not have the political resources to control the most ambitious projects.

## 1936: The Central Reserve Bank Project

After 1936 the specialist relationship became more subtle and complex, no longer functioning under a pattern of conflict or subordination, but negotiation. The focus of this section, the Central Reserve Bank project, (CRB), was based on a provision of the 1935 currency reforms. Its aim was to restructure the CBOC into a bank that would exercise more direct control over the financial markets by holding the reserves of the other banks and monopolizing note issue \_ at least that is what the specialists hoped for. Kung could grant the specialists the power to draft the new laws because, despite KMT English and Chinese news announcements to the contrary, the CRB project was never approved by the Legislature. By monopolizing political control Kung could grant the specialists autonomy, even as these countered his \_heterodox" proposals. But as will be clear below, Kung was restrained by the need to elicit Anglo-American support and specialist participation.

To both he would subtly misrepresent the drafting of the CRB. First, it seems that Kung wanted to garner British and American support for the CRB. This is clear from the telegraph sent by Kung to the Chinese ambassador in the US, Shi Zhaoji 施肇基 right after the currency reforms. He instructs Shi to describe the future CRB as publicly owned but independent institution, fiscal agent of the Treasury, banker's bank," with sole power to issue currency.<sup>75</sup>

Second, it seems that fear of having their role usurped by the Legislature could make the specialists more compliant. By March 4 of 1936, Kung had added Yong, Xi, Soong Ziliang, and Lynch to the project initially headed by Chen and Rogers. The rationale was that it would be impossible for two

<sup>&</sup>lt;sup>74</sup> Zhaojin Ji. *A history of modern Shanghai banking: the rise and decline of China's finance capitalism*. Armonk, N.Y.: M.E. Sharpe, 2003. 203.

<sup>75 &</sup>quot;孔祥熙致施肇基電," 04/03/1935. 洪葭管.

people to finish.<sup>76</sup> Ma Yinchu in the legislature was kept informed by Chen. Arthur discussed the CRB with Kung early in 1936, when the latter assured Arthur that the government would entrust the drafting process to the specialists. However, Arthur became aware of efforts by the Legislature to draft the principles of the CRB, leading him to message Kung, criticizing the legislative discussions and efforts. Kong persuaded Young to disregard the Yuan's efforts and to trust that he and the specialists would have control.<sup>77</sup>

Arthur sent a CRB draft charter only two days later, likely worried. His wrote to Kung that \I am glad to see from your letter of the 9th instant that some of the fears which had entered my mind about the reorganization of the Central Bank are now less likely to be realized than the newspaper reports upon which I had been forced to rely, seemed to suggest." He relates his shock at learning that "a text should at the same time have been passed in Nanking of which none of us had any knowledge. I must also confess that on reading the press reports I was shaken in the understanding which you had conveyed to me that the Chinese Government had wished to avail itself of our offer of technical advice." That there was in fact no such text attests to the subtle manipulation that Kung inflicted on a number of his foreign specialists. Arthur concludes by mentioning his happiness that "there is still opportunity for consideration of any observations which Mr. Rogers or I may have to offer."

Kung would also pressure his specialists by threatening to bring in new experts. In June of 1936, Kung instructed Ambassador Sze that he would be eager to receive an expert from the Federal Reserve to aid in creating the CRB. This was relayed to Arthur and the other foreign experts. Nonetheless Kung stated that there could be no discussion as the ideas absolutely secret - he allegedly feared the diplomatic repercussions of asking for more US advice. The expert never materialized. Whether Kung was bluffing or not is besides the point \_ in light of past behavior, and the deliberate mention of this information to Arthur, it seems plausible he sought to further pressure the foreign specialists.

And it turns out that, at least when it came to the Legislature's role with the CRB, Kung was in fact bluffing. Despite numerous reports in the Kuo Min News service and foreign newspapers, the Legislature did not approve the principles or draft of the CRB on June 6, 1936. The EObl1 for that day verifies that no discussion of the banking law of the central bank took place, notwithstanding a discussion of insurance law. Moreover, the laws of the Republic of China show no revisions to the banking law until well after the war.

<sup>76 &</sup>quot;陳行致馬寅初函," 04/03/1936. 洪葭管

<sup>&</sup>lt;sup>77</sup> Letter February 9, 1936, Box 45, Arthur N. Young Papers

<sup>&</sup>lt;sup>78</sup> 27/06/36, Box 47.Arthur N. Young Papers. Banker K.P. Chen is the one that originally negotiated with the Fed about borrowing an expert.

Chen and Rogers were the original heads of the CRB project, and so they attended a discussion in the legislature where Chen's friend and influential economist Ma Yinchu denounced Kung's hoarding of power in regards to the project. <sup>79</sup> Ma accused Kung, and the evidence supports the contention, that he was restructuring the financial system by executive fiat. Nonetheless, the specialists could still deflect some of Kung's proposals despite the sense of dependency he tried to instill in them. Two examples can illustrate this dynamic. First, Kung proposed increasing agricultural production by providing rural credits, technical assistance, and marketing organization throughout China's vast hinterland. It could be argued that a "bundle" of this sort was in fact the best way to approach reform in the Chinese countryside \_ the bundling of credit with technical assistance is not an aberrant practice today, and would also be a cornerstone of agricultural reform in Taiwan after the KMT retreat of 1949. Nonetheless the specialists argued that \_A clear distinction should be made, however, between financial functions and other functions such as improvement of standards and the proper organization of marketing. The latter functions should be exercised by the Ministry of Industry and the National Economic Council&" Of course, they did not want to give up the opportunity to shape policy at the Farmers Bank, adding that "If these general principles be approved, the next step would appear to be to designate a small group of experts experience in finance."80

Second, a Russian banker named A.M. Kazimiroff, through his connections at one of the northern Bank of China branches, managed to get Kung's attention. He proposed creating a credit market in China by establishing a government-controlled commercial paper and securities bank, hinging on the promise of the veksels, a Russian variant on older tradable debt contracts developed earlier in Germany and the Netherlands. In the specialists' eyes there was one important problem, there was already an institution in charge of serving as a clearinghouse for corporate debt. It was the Shanghai Bankers Acceptance House 銀行票據承兌所, and it had held its first meeting a year before. A clearinghouse owned collectively by the commercial banks was deemed acceptable--getting the government involved was deemed improper. Clearly the specialist faced pressure from Kung, who had assumed an outsized role in carrying out financial reforms. Yet, Kung also depended on specialist expertise and applied subtler methods of influence, while the specialists at the same time negotiated their terms of service, refusing to participate in projects that violated their professional sensibilities.

-

<sup>&</sup>lt;sup>79</sup> "立法院匆促討論過:第一次審查會" and "財政部參事陳述參加審查會情況." 17/07/1937. 洪葭管.

<sup>&</sup>lt;sup>80</sup> ANY, FRL, JHC, CR to HHK; "Memorandum on proposed Agricultural Foundation Bureau." 04/05/36. Box 45. Arthur Young Papers.

<sup>&</sup>lt;sup>81</sup> "J.A. Yavdynksy to ANY." 09/03/37. Box 46. Arthur Young Papers.

<sup>82 &</sup>quot;1st Meeting of Bankers' Acceptance House." 28/03/36. Box 46. Arthur Young Papers.

The specialists managed some important victories in the drafting of the CRB. Especially evident in the confidential memo they sent along with the draft charter, they were firm on limiting government control. The charter and memo reinforce each other - the government's shares would carry no voting rights and only the chairman to the seven-person board of directors would be appointed by the Finance Minister. The draft charter as it stood in June of 1936 would have created an orthodox institution. Had Japan not invaded a month later it is likely the specialist vision would have come to life.<sup>83</sup>

<sup>&</sup>lt;sup>83</sup> Confidential Memo to HHK." 08/06/1936. Box 47. Arthur Young Papers;``立法院通過的中央儲備銀行法草案" and ``改組中央銀行的過渡辦法," 行政部專卷, in 洪葭管;

## Part 3: Industrialization, growth, and the halting reforms of the People's Bank of China

At the time of the Communist takeover of China in 1949, the PBOC was still a small organization, formed out of two northern banks. However, its institutional capacity expanded as it grew to anchor a Soviet-style financial system designed to achieve economic development and industrialization. After Mao's death and the rise of Deng Xiaoping, markets became increasingly important and the financial system grew more volatile—inflation, in particular, reared its head many times. PBOC reformers and their allies in the CCP leadership believed that transforming the PBOC into a central bank in the Western mold would aid China in better managing the transition out of a planned economy. The rise in the PBOC's authority and its agenda of financial reforms accelerated in the 1990s under governor Zhu Rongji 朱鎔基 and his protégé Dai Xianglong 戴相龍, and reached their apogee in the late 2000s under Zhou Xiaochuan 周小小儿.

Nonetheless, the PBOC never achieved true institutional independence, and remained subject to the developmentalist agenda of the CCP.<sup>85</sup> Foreign countries rebelled against the negative externalities of China's development approach—in particular the global distortions caused by China's financial repression—and became warier of the regime's stronger authoritarian actions, including foreign interference and the crackdowns in Hong Kong and Xinjiang. Once this had happened, the appeal of further financial integration and liberalization plummeted.

	From	To	Premier	Authority/independence
Nan Hanchen 南汉宸	Oct-49	Oct-54	Zhou Enlai	
Cao Juru 曹菊如	Oct-54	Oct-64	Zhou Enlai	
Hu Lijiao <i>胡立教</i>	Oct-64	1966	Zhou Enlai	
Post abolished during				
Cultural Revolution				
Chen Xiyu 陈希愈	May-73	Jan-78	Zhou Enlai; Hua Guofeng	
Li Baohua <i>李葆华</i>	Jan-78	Apr-82	Hua Guofeng; Zhao Ziyang	Reforms begin
Lü Peijian <i>吕培俭</i>	Apr-82	Mar-85	Zhao Ziyang	
Chen Muhua <i>陈慕华</i>	Mar-85	Apr-88	Zhao Ziyang	State Councilor (1982–1988)
Li Guixian <i>李贵鲜</i>	Apr-88	Jul-93	Li Peng	State Councilor (1988–1998)
Zhu Rongji 朱镕基	Jul-93	Jun-95	Li Peng	First-ranked Vice-Premier (1993–1998)

<sup>&</sup>lt;sup>84</sup> Davis Wang. "Dogged by Inflation: China's Move to a Socialist Market Economy." Harvard International Review, Fall 1994, Vol. 16, No. 4, 58-59, 87-88. Harvard International Review.

<sup>&</sup>lt;sup>85</sup> Gregory T. Chin. "Understanding Currency Policy and Central Banking in China." The Journal of Asian Studies, August 2013, Vol. 72, No. 3, 519-538. Association for Asian Studies.

Dai Xianglong 戴相龙	Jun-95	Dec-02	Li Peng; Zhu Rongji	PBOC officially a central bank in 1995
Zhou Xiaochuan 周小川	Dec-02	Mar-18	Zhu Rongji; Wen Jiabao; Li Keqiang	Vice Chairman of the CPPCC; National Committee (2013–2018)
Yi Gang 易纲	Mar-18	Serving	Li Keqiang	Serves under party branch secretary Guo Shuqing

## Central banking under Mao

Scholars know quite a bit about the PBOC during the first five-year plan (FYP), as historical records are relatively abundant for the years before the PRC's ban on exports of written materials in 1959. The authoritative, contemporary accounts were written using government manuals, statistics, and reports from disparate provinces and counties.<sup>86</sup> These have been complemented today with access to select county archival materials.<sup>87</sup>

The CCP rushed to consolidate the PBOC into a Soviet-style bank starting in 1952, and by 1955 this had largely been achieve. Under the Nationalist regime, the largest banks had come under state control already. Under the Communists, these banks were formally merged into the PBOC, as were all other banking institutions.

One might wonder, what use was banking under communism? How could lending and interest—the price of capital—exist in a centrally planned economy? Economic planning was not unique to communism—in fact, the German state pioneered its practice from 1900s onwards, reaching a crescendo under the Nazis. Some German planners saw money as a veil that hid the real flows of the economy—this was embodied in the idea of *Konjunkturforschung*, and the project to build a massive input-output table that could illuminate the effects of economic policy and planning.<sup>88</sup>

<sup>&</sup>lt;sup>86</sup> Tadao Miyashita. The Currency and Financial System of Mainland China. New York: Da Capo Press, 1976.; Carl E. Walter. Party-State Relations in the People's Republic of China: The Role of the People's Bank and the Local Party in Economic Management. Stanford: Dissertation, 1981.

<sup>&</sup>lt;sup>87</sup> For a case study of rural Wenzhou using new archival materials, see Matthew Lowenstein. "Return to the Cage: Monetary Policy in China's First Five-Year Plan," Twentieth-Century China, Volume 44, Number 1, January 2019, pp 53-74. Johns Hopkins University Press.

<sup>&</sup>lt;sup>88</sup> Adam Tooze. Statistics and the German State, 1900-1945: The Making of Modern Economic Knowledge. Cambridge: Cambridge University Press, 2001. "Leisse's industrial statisticians used this information to derive an image of the physical process of production. However it could also be used to trace the economic interrelationships between the sectors of industry and the relations between industry and the rest of the economy. One could then study movements in industrial output as the product of impulses originating in particular sectors of the economy, propagating outwards as the result of backward and forward linkages." Page 200; Also relevant is Adam Tooze. Wages of Destruction: The Making and Breaking of the Nazi Economy. New York: Viking Penguin, 2007.

The Chinese leadership early on recognized the limits of physical planning, and so sought to use a partially free market to animate "value planning expressed in monetary units and in aggregates." This is known as financial planning, and was comprised of 1) enterprise financial plans, 2) the state budget, and 3) the cash and credit plans. The financial system thus became a "an instrument for channeling resources into the centrally determined investment projects."89 Through a nuanced process of trial and error, the new Communist state created new institutions that centralized banking in urban areas, but could also efficiently penetrate into the vast countryside where most of the population still lived.

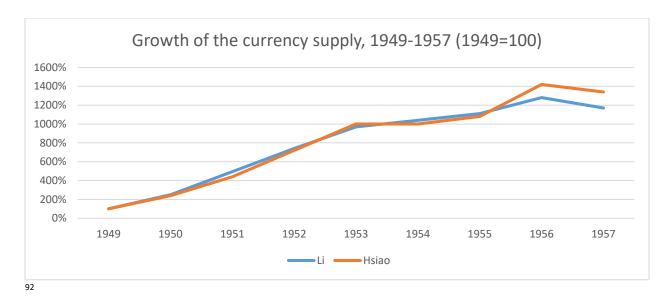
During this era, the PBOC's aspiration was to become the "center of cash, credit, and settlement," "the economy's nerve center which controls the money circuits and oversees transactions in the dominant state sector."90 This required creating sets of controls—microfinancial and macrofinancial.

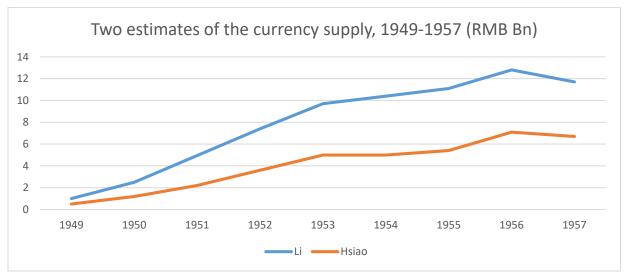
The party decreed in 1950 that all cash in excess of working capital was to be deposited in the PBOC. Furthermore, transactions between enterprises was no longer allowed—they had to be settled through their PBOC accounts. 91 Additional funds to enterprises were to be disbursed according to the state credit plan. Individuals too, faced limitation on how much of their deposits they could withdraw, and how they could use cash. We can thus see that the monetary system was comprised of two circuits. The inter-enterprise settlements accounts held at the PBOC, and the circulating cash amongst what we would call "retail users." This structure set the stage for the PBOC's struggle between microfinancial surveillance and discipline of the planned economy, and its macrofinancial concern with limiting inflation.

<sup>89</sup> Katharine Huang Hsiao. Money and Monetary Policy in Communist China. New York: Columbia University Press, 1971. 10-11.

<sup>&</sup>lt;sup>90</sup> Hsiao. 65.

<sup>&</sup>lt;sup>91</sup> The Nationalists also attempted to control funds held by state-controlled enterprises in the 1940s. See S.H. Chou. "Prices in Communist China," Journal of Asian Studies, XXV, No. 4. August 1966. 651.

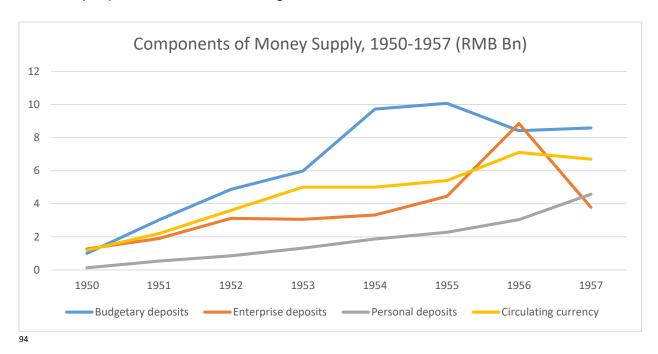




As Carl Walter detailed in his 1982 dissertation, the PBOC head office reported of the State Council, and the PBOC local branches faced constant meddling by local party organs. This matrix of vertical authority lines within the PBOC, but also horizontal ties with the party at every level, is what he terms "dual leadership." And it hamstringed the PBOC's ability to surveil and discipline enterprises. The lack of Soviet-style state capacity was reflected in the resistance of enterprise managers to submit to PBOC inspection—as well as in the inability of the PBOC credit plan to fully encompass 100% of the economy. Chen Yun criticized the complexity of cash control and supervision of credit and settlement in 1956. "This was followed by numerous articles dealing with the enterprises' resentment against the

<sup>&</sup>lt;sup>92</sup> Cho-mig Li. Economic Development of Communist China. Berkeley: University of California Press, 1959. 160; Hsiao, 190

Bank's restrictions and interventions."<sup>93</sup> The PBOC branches also proved unable to discipline enterprises by withholding credit. The credit they did grant was often repaid within the 1-2 year maturity allowed for bank lending. Long-term lending was theoretically not allowed, as lending was supposed to reflect merely the mobilization of temporarily idle funds, and long-term investments were supposed to be financed by requisitions from the state budget.

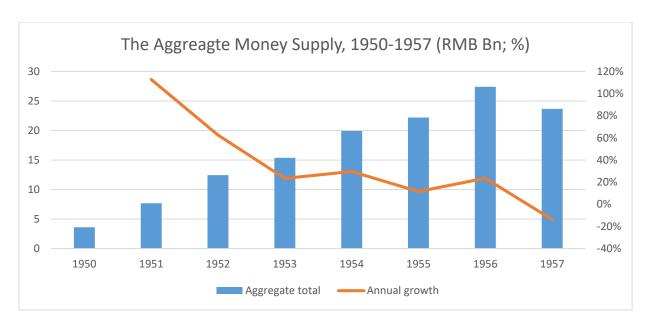


This money creation eventually leaked out into cash through wage payments, and this eventually affected the general price level. The leadership could not tolerate inflation, and so the PBOC needed a means to soak up the excess money being created. One key tool for "cash management" 現金管理 were deposit drives—cadres would go out into the city or countryside and get the public to deposit their cash with the PBOC. These deposits, we should remember, were not as liquid as cash, and were deflationary. 95

<sup>93</sup> Hsiao, 70.

<sup>&</sup>lt;sup>94</sup> Hsiao, 206.

<sup>95</sup> See Lowenstein.



From a macrofinancial perspective, this is the inverse of price stability approaches in the US and Europe. Central banking today in the West aims to price investment through interest rate targeting, so that investment can utilize societal savings. In Mao's China the PBOC would first fulfill investment quotas and after the fact create the savings necessary to match it, otherwise it would trigger inflation. The imperfections in this system are, in fact, part of the reason the CCP leadership reduced investment targets at the end of the 1950s, helping to slow the grow of the money stock and avert an inflationary spiral. <sup>96</sup>



Central banking after Mao

<sup>&</sup>lt;sup>96</sup> Hsiao, 262.

The nature of the PBOC has changed tremendously following the start of reform and opening under Deng Xiaoping. Bell and Hui characterize this as the result of a growing mutual dependency between the PBOC and party leadership, "based primarily upon the increasingly enhanced institutional capacities, expertise, and policy track record of the PBOC, especially since the mid-1990s." More specifically, it has been the key institution advancing a "more sophisticated and market-oriented framework for monetary policy." As the role of market institutions increased, the CCP needed an institution that could manage the more volatile relationships that emerged as controls were lifted. The old apparatus proved, again and again, unable to manage financial volatility, providing an opportunity for reform-minded experts in the PBOC to advance their financial reform agenda.

As a means to increase the technological sophistication of its economy and raise production, China pursued a strategy of state-led export-focused industrialization. As an enabler of this transformation, the PBOC pursued a fixed exchange policy. But in 1995 the landmark Central Bank law assigned to the PBOC the responsibilities due to central banks in the West. It was granted authority over the exchange rate, which had previously lain with MOFTEC. The State Council's 1996 Regulations on Foreign Exchange Management converted the exchange rate from a tool of trade promotion to one of monetary policy. During the 1997 Asian Financial Crisis, the PBOC took the decision to not devalue the RMB, given that inflation had just been brought under control, and a devaluation would unleash inflationary pressures yet again. As a result, it found itself under intense pressure internally to do so—after all, the priority of the regime remained export-led industrialization. The PBOC governor Zhu Rongji was opposed by Premier Li Peng, but the leadership ultimately sided with Zhu, who found other ways to promote exports besides manipulation of the exchange rate.

When it came to changing the institutional forces behind money creation, the PBOC moved to address the contradictory mandates that had created excess currency since 1949—the provision of state loans to SOEs without strict repayment. The largest state banks had their origins in the Republican era, but after 1978 had once again been broken out from the PBOC. They, along with most other banks, were still backed and controlled by the state. As state revenues dwindled after the 1980s process of economic decentralization, the central government was unable to continue providing equity and investment

<sup>&</sup>lt;sup>97</sup> Bell and Hui, 5.

grants—which were supposed to be the way that long-term investment was funded.<sup>98</sup> This increased the burden on state banks to increase lending to SOEs, and by the 1990s 80% of credit was going to SOEs.<sup>99</sup>

But SOEs were treating these loans as non-repayable grants, and in 1996 for the first time, their overall losses exceeded profits. This created an explosion in non-performing loans (NPL), and the big four banks were technically insolvent. In 1994, their total capital stood at RMB 240 BN, which was dwarfed by their RMB 530 Bn in NPLs. The Central Party School estimated that NPLs by 1995 were between 21-43% of GDP<sup>100</sup>. The Asian Financial Crisis prompted the government to move to resolve the NPL crisis, and at first attempted to do so by placing all NPLs in asset management companies (AMC). The AMCs issued RMB 1.4 TN in bonds to the four banks, and then used those same funds to buy the NPLs at face value. The AMCs had a charter of 10 years and were supposed to then try and recover as much of the loans as possible. In total, the bailout cost RMB 1.71 TN, which accounted to 25% of total state revenue since the founding of the PRC.<sup>101</sup> Unfortunately, the incentives that had created the NPLs remained, as bad loans continue to pile up.<sup>102</sup>

This offered an opening for the PBOC. Its leaders at the time—governor Zhou Xiaochuan and vice-governor Wu Xiaoling—had in their academic and professional work explored ways to reform the banking sector. They had concluded that internal discipline would not be enough. Instead, they had come to believe that the banks had to be opened to market discipline and international scrutiny. The solution was to transform the banks into shareholding institutions, sell equity to foreign financial institutions to inject capital and clean up the balance sheet, and through those same investments gain management expertise. By 2005, 19 foreign investors had invested the equivalent of 15% of the entire sector's portfolio. Although regulation of the banks fell under the China Banking Regulatory Commission (CBRC), the PBOC was far more dominant. An official PBOC document listed the reasons for this as "We have the mandate, we have the idea, and we have the funds." But, more importantly, the PBOC had the trust of the top leadership of the Party. "The fact that the program went ahead in December 2003

\_

<sup>&</sup>lt;sup>98</sup> Bell and Hui, 269.

<sup>&</sup>lt;sup>99</sup> Raymond Blanchard. "The Heart of Economic Reform." China Business Review, January 1997. 17.

<sup>&</sup>lt;sup>100</sup> Victor Shih. "Dealing with Non-performing Loans: political Constraints and Financial Policies in China." China Quarterly 180, 2004. pp 922-944.

 $<sup>^{101}</sup>$  Bell and Hui cite 叶檀。*拿什么拯救中国经济。* 北京:中信出版社, 2009.

<sup>&</sup>lt;sup>102</sup> Victor C. Shih. Factions and Finance in China: Elite Conflict and Inflation. Cambridge: Cambridge University Press, 2008. 170-190.

<sup>&</sup>lt;sup>103</sup> Connie Wee-Wee Chung and Jose L. Tongzon. "A Paradigm Shift for China's Central Banking System." Journal of Post Keynesian Economics, Autumn, 2004, Vol. 27, No. 1. Taylor and Francis. 87-103.

<sup>&</sup>lt;sup>104</sup> Bell and Hui cite an interview with a PBOC official.

demonstrates that Wen Jiabao has accepted Zhou Xiaochuan's overall blueprint for financial reforms and has assembled a workable political consensus around the proposals."<sup>105</sup>

Date	Institutions	Investment (\$BN)	Stake (%)
Dec-03	BOC	22.5	67.6
Dec-03	ССВ	20.0	57.13
Dec-03	Jinayin Investment	2.5	100
Jun-04	BOCOM	0.4	6.12
Apr-05	ICBC	15.0	35.43
Jun-05	Galaxy Securities	1.2	-
Jul-05	Export-Import Bank of China	5.0	-
Aug-05	Shenyin Wanguo Secruities	0.3	37.2
Aug-05	Guotai Jun;an Securities	0.1	21.3
Aug-05	Galaxy Holdings	0.7	78.57
Jan-07	China Reinsurance Corporation	4.0	85.5
Dec-07	Everbright Bank	2.7	48.37
Dec-07	China Development Bank	20.0	48.7
Nov-08	ABC	19.1	40.12
Nov-09	New China Life Insurance	0.6	31.23

The banking reforms were underpinned by the creation of the Central Huijin Investment Company 中央匯金投資有限責任公司, in December of 2003. Huijin received its funds from the massive exchange reserves the PBOC had accumulated. These were channeled through the State Administration of Foreign Exchange (SAFE 國家外匯管理局), which is subordinate to the PBOC. Through Huijin, the PBOC was allowed to take major stakes in all the banks, effectively establishing greater control than the MOF, and forcing greater discipline. The PBOC used these investments to then guide the banks to their successful IPOs, which led to greater injections of capital and even greater market pressure to improve credit analysis, corporate governance, and risk management. By 2011, Huijin had invested \$114BN in 15 financial institutions and acquired a controlling stake in at least eight of them.

## Some setbacks

The momentum did not last. In fact, reformers had been facing headwinds for some time. The first big blow came when Huijin was merged into the China Investment Corporation 中國投資有限責任公司 (CIC), which is sovereign fund established in 2007 and controlled by the MOF. One of the major

 $<sup>^{105}</sup>$  Barry Naughton. "Financial Reconstruction: methodical policymaking moves into the spotlight." China Leadership Monitor 10(Spring), 2004.

arguments in Walter and Howie's *Red Capitalism*,<sup>106</sup> is that 2005 was in fact the death of financial reform in China, given that the PBOC's top ally—Jiang Zemin—was stepping down.

A more nuanced view would focus on what Victor Shih has labeled the "symbiotic relationship" between generalists and specialists in an authoritarian system. <sup>107</sup> In his view, technocratic specialists seek policy autonomy, but are restrained in terms of their political power base. Generalists, on the other hand, draw on elite networks across provinces and bureaucracies, but rely on specialists for policy expertise. Because specialists have narrow power bases, they do not threaten the generalist officials that ultimate rule the party. However, the ruling generalist factions delegate significant powers to technocrats like those in the PBOC. This can produce lasting institutional change. For example, although Huijin was no longer part of the PBOC, the PBOC's approach to banking reform has decisively replaced the MOF's previous approach of direct bailouts.

Ultimately, however, specialists like the economists at the PBOC serve at the pleasure of generalist superiors to further a specific agenda. As we will explore in the next section, political imperatives will always outweigh technical considerations.

 $<sup>^{106}</sup>$  Carl E. Walter and Fraser J.T. Howie. Red Capitalism: The Fragile Financial Foundation of China's Extraordinary Rise. Singapore: John Wiley and Sons, 2011.

<sup>&</sup>lt;sup>107</sup> Shih, 193.

## Part 4: Decoupling, digital currency, and the return of Self-Strengthening

Most authors had expected that China's banking and financial sectors would continue to liberalize under an increasingly independent PBOC. Given its global ambitious, the internationalization of the RMB would have required the lifting of capital controls, at minimum.<sup>108</sup> These predictions have run aground on the reality of party politics under Xi Jinping 習近平, who has moved to reconsolidate authority under the CCP,<sup>109</sup> and the increased tensions with the US following the election of President Donald Trump. The new PBOC governor is now subordinate to party branch secretary Guo Shuqing 郭樹清. At the same time the beginning of Cold War II with the US has reduced the appeal of liberalizing and opening China's financial system—much to the chagrin of the CCP's Wall Street allies.<sup>110</sup>

For many observers, it is clear that Xi seeks to "make clear the linkages between an imperial China and a China led by the Communist."<sup>111</sup> I would argue that similar to older concerns of Self-Strengthening, the CCP is focusing on strategies for raising the technological sophistication of its economy and its control over those resources. One especially important initiative is "Made in China 2025" which Premier Li Keqiang 李克強 debuted in May 2015. It is a blueprint to upgrade China's technological production in semiconductors, aerospace, biotech, IT, electric vehicle, and a host of other sectors. The government has so far committed \$1.7 TN to the initiative. The other key initiative is "dual circulation 雙循環," which was announced by Xi on May 14, 2020, as a move towards autarky in light of the COVID-19 pandemic. This is in contrast to the emphasis on "global circulation" which was favored by Deng Xiaoping. Instead, dual circulation will decrease Chinese reliance on foreign technology,

<sup>&</sup>lt;sup>108</sup> Barry Eichengreen. "The Renminbi as an International Currency," Journal of Policy Modeling, 33(5), September 2011: 723-730.

<sup>&</sup>lt;sup>109</sup> Cheng Li. Chinese Politics in the Xi Jinping Era: Reassessing Collective Leadership. Brookings Institution Press, 2016.

<sup>&</sup>lt;sup>110</sup> Lingling Wei, Bob Davis, and Dawn Lim. "China Has One Powerful Friend Left in the U.S.: Wall Street," The Wall Street Journal, December 2, 2020. https://www.wsj.com/articles/china-has-one-powerful-friend-left-in-the-u-s-wall-street-11606924454

<sup>&</sup>lt;sup>111</sup> Elizabeth Economy. The Third Revolution: Xi Jinping and the New Chinese State. Oxford: Oxford University Press, 2018. 3.

<sup>&</sup>lt;sup>112</sup> https://www.mckinsey.com/featured-insights/asia-pacific/a-new-world-under-construction-china-and-semiconductors

<sup>&</sup>lt;sup>113</sup> Kevin Yao. "What we know about China's 'dual circulation' economic strategy," Reuters, September 15, 2020. https://www.reuters.com/article/china-economy-transformation-explainer/what-we-know-about-chinas-dual-circulation-economic-strategy-idUSKBN2600B5

production, trade, and finance, while increasing domestic circulation by raising consumption, and technological development. 114

The longer history of Chinese central banking can thus prove enlightening when considering the government's rollout of the DCEP project. As will be made clear below, the project should not be interpreted solely as a continuation of PBOC-driven reform of China's banking sector, but as a means to deepen state penetration in society and economy, helping to prod technological innovation (though not necessarily invention) in areas the CCP leadership thinks are valuable, while allowing them the direct means for controlling what happens in the digital world.<sup>115</sup>

A sketch of China's digital currency and electronic payments project

China's digital currency is not a crypto currency. The current PBOC governor Yi Gang 易剛, during the 70<sup>th</sup> national anniversary in 2019, summarized the DCEP in four points. <sup>116</sup> First, the PBOC has been working on the project since 2014, and will consist of central bank money and payments rails. Second, the goal is to replace M0 (that is, cash), not M1 or M2 broader money. Third, the currency will be distributed through the existing financial system, which should "arouse the enthusiasm of the market." And fourth, there are no fixed technological routes determined yet, and the technologies behind the system are prone to change to accommodate both market incentives and needs of the state, in particular centralized management, KYC, and AML.

<sup>&</sup>lt;sup>114</sup> "看习近平这几次重要讲话,弄懂"大循环""双循环",新华网,September 5, 2020.

http://www.xinhuanet.com/politics/xxjxs/2020-09/05/c\_1126455277.htm

<sup>&</sup>lt;sup>115</sup> Economy, 125. This is a crucial distinction, which is playing out in the world of digital currency—China did not invent digital currencies and has not produced inventions in this area, but the state is keen to promote innovative uses of these technologies.

<sup>&</sup>lt;sup>116</sup> "第一,人民银行从 2014 年就开始研究数字货币,我们有一个数字货币研究所,有一个专门的团队,目前取得了积极进展。我们把央行的数字货币和电子支付工具结合起来,所以叫做数字货币和电子支付这样一个一揽子的计划。第二,将来数字货币和电子支付的目标是什么呢?目标是替代一部分 M0,也就是说替代一部分现金,它不是说去替代 M1 或者广义货币 M2。第三,我们数字货币将来的框架是中央银行和商业银行双层运行体系,不改变现在的货币投放路径和体系,这样就充分调动了市场的积极性。第四,我们会坚持中心化管理,在研发工作上不预设技术路线,可以在市场上公平竞争选优,既可以考虑区块链技术,也可采取在现有的电子支付基础上演变出来的新技术,充分调动市场的积极性和创造性,我们也设立了和市场机构激励相容的机制。至于你问到什么时候能够推出来,我们现在没有时间表,我觉得还会有一系列的研究、测试、试点、评估和风险防范,特别是数字货币如果跨境使用,这里面还有反洗钱、反恐融资、反避税天堂和"知道你的客户"等一系列的监管要求。" from "央行行长易纲演讲全文:数字货币推出目前没有时间表," 比快报,September 23, 2019. https://www.beekuaibao.com/article/626067353830817792

The accuracy of this description has not changed much over the last year. According to the latest reports, the DCEP will be an account-based, rather than token-based system. This means that the PBOC will have full visibility and control over the flow of money, much like how a bank ledger gives bank administrators full control over the transactions between their users.

## Development politics in a new technological age

We should not underestimate what DCEP might be able to achieve for the Chinese state; its benefits will extend far beyond the realm of fintech. In light of history, monetizing all flows of value in society in a manner instantaneously transparent to the state could reanimate long-dead Soviet, Nazi, and Maoist dreams of complete economic and management. Below I outline three of the many changes that will follow if the PBOC succeeds in its quest to pierce the monetary veil: 1) a return to financial surveillance and discipline in the service of state economic planning, 2) the ability to pick and scale up winners in new industries, and 3) undermining US financial power.

The most obvious benefit to Chinese technological innovation from DCEP is restore the PBOC ability to monitor and enforce national development plans. Remember that following the Communist takeover, the Maoist monetary system theoretically allowed the PBOC to directly monitor all interenterprise monetary flows, while indirectly managing the flow of cash between individuals. In practice, entrepreneurs resisted what they considered interference from the PBOC, and even among large enterprises it was difficult to guarantee compliance. Part of the issue was the massive amount of paperwork that needed to be sent from enterprises to bank branches, and from bank branches to bank offices and other government departments. This opacity in turn produced incentives for credit misallocation and misuse, as well as divergence from state economic planning.

With DCEP, the PBOC, or another agency empowered by the digital currency, will be able to disburse development funding and accurately track its use or misuse. Today, the CCP is obsessed with breaking free from its semiconductor dependence on Taiwanese and American firms. However, the large amounts of government funding allocated for this purpose, it is allegedly being received by a large

<sup>&</sup>lt;sup>117</sup> Hung Tran, Barbara Matthews. "China's Digital Currency Electronic Payment Project reveals the good and the bad of central bank digital currencies," Atlantic Council, August 24, 2020.

https://www.atlanticcouncil.org/blogs/new-atlanticist/chinas-digital-currency-electronic-payment-project-reveals-the-good-and-the-bad-of-central-bank-digital-currencies/

<sup>&</sup>lt;sup>118</sup> For a description of the broader design space for CBDCs, e.g. token vs accounts, interest bearing options, fiscal integrations, etc., see Bordo and Levin, "Central Bank Digital Currency and the Future of Monetary Policy."

number of shell firms set up by local governments to capture this funding. This would be impossible under a DCEP regime.



However, DCEP can also facilitate more transformative changes in China's economy. China's regulators and officials themselves have outlined what this might look like. Consider the speech given by Huang Qifan 黃奇帆, the former mayor of Chongqing and chairman of the China Center for International Economic Exchange 中國國際經濟交流中心, at the 2019 Bund Financial Summit. Because the DCEP lacks a whitepaper of its own—a nod to Satoshi Nakamoto's Bitcoin white paper, almost all new projects digital currency papers publish a whitepaper—and Huang's speech is the most comprehensive description of the project to date, his speech is often taken as the unofficial "whitepaper" of China's digital currency, though it has yet to be translated, as far as I know. In Huang's words:

"Digitization is comprised of big data, cloud computing, AI, and blockchain technologies. The relationship between these, if we understand digitization through analogy with human biology, is as follows: the internet, the mobile web, and the Internet of Things are like the human nervous system, big data is like the human body's internal and external organs, and cloud computing is equivalent to the body's backbone.

If there is no internet, the organs and the spine cannot communicate; without cloud computing, there is no way for the organs to hang together; and without big data, cloud computing is like a walking corpse, mindless and brain dead. With the nervous system, spine, and organs, one can add AI as the equivalent of a soul—with the final system of the human brain and mind, a digital foundation complete.

<sup>&</sup>lt;sup>119</sup> 黄奇帆: 中国央行很可能在全球率先推出数字货币. 新浪财经,October 28, 2019. https://finance.sina.com.cn/china/gncj/2019-10-28/doc-iicezzrr5429893.shtml

Moreover, blockchain technology is like the latest "genetic engineering technology", which from a most basic level can substantially increase the mind's speed, skeletal strength, and limb dexterity and control. With the assistance of blockchain technology, the platform of digitization will undergo disruptive transformations in its most basic capabilities and uses, thereby producing a great force propelling our economy and society forward."<sup>120</sup>

What Huang leaves unsaid is that this digitization can be controlled through access to the conduits of digital value—with DCEP, such capillary power will lie in the hands of the state. The impact of complete digitization lies in what he calls the "five totalities" 五全基因. Digitization is to cover all regions, all processes, all circumstances, all understanding, and all value. That is, it knows no borders, will penetrate all human activity, all industries and areas of life, producing new and complete forms of knowledge and prediction of human behavior, and make commensurable all previously closed systems of value accounting, unifying them into a comprehensive value chain. 121

This is *Konjunkturforschung* with Chinese characteristics, reimagined for the digital age. Huang is right that the tantalizing knowledge sought by the Third Reich is now within reach. In some ways Huang's speech resonates with the German transition in the 1930s. "Konjunkturforschung had originally assigned to the state the facilitative role of ensuring the smooth development of the national economy. Now the aim was to subordinate the economy to the priorities of the regime." 122

How would this play out in practice? I have mentioned the example of Plaid, which provides an application programming interface (API) for fintech—that is, it serves as an intermediary layer between

<sup>120 &</sup>quot;数字化主要包含大数据、云计算、人工智能以及区块链技术。而这几者之间的关系,如果将数字化平台用人来类比:互联网、移动互联网以及物联网就像人类的神经系统,大数据就像人体内的五脏六腑、皮肤以及器官,云计算相当于人体的脊梁。没有网络,五脏六腑与和脊梁就无法相互协同;没有云计算,五脏六腑无法挂架;而没有大数据,云计算就是行尸走肉、空心骷髅。有了神经系统、脊梁、五脏六腑、皮肤和器官之后,加上相当于灵魂的人工智能——人的大脑和神经末梢系统,基础的数字化平台就已经成型了。而区块链技术,就像更先进的"基因改造技术",从基础层面大幅度的提升大脑反应速度、骨骼健壮程度、四肢操控灵活性。数字化平台在区块链技术的帮助下,基础功能和应用将得到颠覆性改造,从而对经济社会产生更强大的推动力." Ibid.

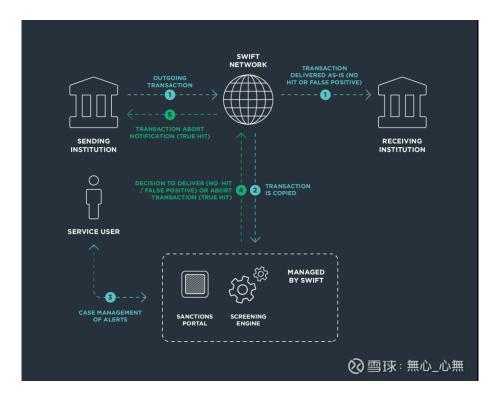
<sup>121 &</sup>quot;数字化之所以能够颠覆传统,就在于它所拥有的五全基因:全空域、全流程、全场景、全解析和全价值。所谓"全空域"是指:打破区域和空间障碍,从天到地,从地上到水下、从国内到国际可以泛在的连成一体;所谓"全流程"是指:关系到人类所有生产、生活流程中每一个点,每天 24 小时不停地信息积累;所谓"全场景"是指:跨越行业界别,把人类所有生活、工作中的行为场景全部打通;所谓"全解析"是指:通过通过人工智能(AI)的收集、分析和判断,预测人类所有行为信息,产生异于传统的全新认知、全新行为和全新价值;而所谓"全价值"是指:打破单个价值体系的封闭性,穿透所有价值体系,并整合与创建出前所未有的、巨大的价值链。"Ibid.

<sup>&</sup>lt;sup>122</sup> Tooze, 213.

new financial software and the banking system. DCEP will serve as an API for the digital economy, which if Huang is to be believed, in China might soon encompass all economic activity.

Control over such an intermediary layer would allow economic coordination qualitatively different than what is available today. It would facilitate machine-to-machine communication and transactions, allowing a fuller automation of manufacturing and producing what some technologists term the Fourth Industrial Revolution. Logistics and value chain flows could also be more fully automated, with supply chains enjoying increased efficiency thanks to predictive learning. Physical infrastructure and sensors, like what Google is developing in Montreal, can form "smart cities" and enhance city management. In light of this, the reduction of financial risk and improvements in payments seem like small potatoes. With a fully deployed DCEP, the Chinese state will be better positioned to pick winners, encourage mergers for efficiencies of scale, and reassert control over all enterprises—especially technology companies.

The third change engendered by DCEP is a transformation of international finance and the erosion of US financial power. Huang mentions the same concerns that are likely in mind for US regulators—namely how to bypass the SWIFT and CHIPS systems, which has been used by the US to impose financial sanctions and freeze bank funds. He cites, for example, the 2006 sanctions against Iran, and the threats to exclude Russia from the world banking system in light of the 2014 Ukrainian crisis.



But other authors have been more vocal in their call to revolutionize the process of money creation, and topple US financial hegemony. For example, in an essay circulated widely on Chinese social media, the financial analysis firm Xueqiu Finance says a Chinese digital currency is an ICBM aimed at US financial hegemony. Unfortunately, English-language media has translated the name of the missile, 巨浪 -3, as "third wave." 123 These aggressive remarks are underpinned by attempts to produce new theories about money and value. Examples of this can be found in official speeches and research papers. In one research paper by Zou Pingzuo 鄒平座, the principal investigator at the PBOC's Institute of Finance, that the digital revolution will merge money's value measuring function with the value of currency itself, thus transforming money creation into value creation. 124 Thus, the US COVID-19 response which has flooded the world with dollars is seen as a way for the US to take value from the world like some sort of "bloodsucking hegemon" 吸血霸权. Allowing Facebook and the Federal Reserve to cooperate on a digital dollar, he says, would be "mortal financial aggression." 125 The currency shocks that the US could inflict on China, given its recent financial liberalization, could cost the country decades of hard-earned industrial development. Zou believes that the future will see a reconstitution of monetary policy at the micro level. That machine learning and big data will allow the quantification and tokenization of human value, and its management through complex markets that can rationally optimize how human value is used. Such a system will replace the rough, backwards measurements of GDP, as it will allow China to focus on the maximization of human value far beyond what other countries can achieve. Though, it should be noted, he concludes in the last line of his extensive footnotes that the current design of the DCEP, while a step in this direction, does not have a design favorable to the creation of an allencompassing, value-capturing digital token system.

<sup>&</sup>lt;sup>123</sup> "央行数字货币是射向美国 SWIFT 的巨浪 3," 雪球, April, 2020. https://xueqiu.com/1396895524/147222575 <sup>124</sup> 邹平座。"中国人民银行论文: 货币政策的市场化协同与大数据机制研究。"证券时报网,March 22, 2020. http://news.stcn.com/2020/0322/15749698.shtml

<sup>&</sup>lt;sup>125</sup> "如果此时,美联储与脸书合作推出以扩张以后的美元为基础的数字货币,而且这种数字货币具有跨境支付功能,那么,这种金融侵略将是致命的。" Ibid.

## Conclusion

"What is Chinese about China's modern state? The revolutions and reforms that produced it were surely influenced by forces from abroad; indeed, the main point of making a modern state was to resist foreign domination by using some of the foreigners' own technologies of dominance, both material and societal. The enterprise seemed to require mobilizing the energies of the people, rewriting the rules of political competition, and intensifying state control over society and economy. These goals were considered necessary for China's survival—even more necessary than the integrity of her inherited culture. That history be sacrificed to power has seemed inescapable to Chinese of the modern age." 126

In this paper I have explored three episodes in China's central banking history, from the late Qing to the present day. Superficially, they appear to be moments of convergence and then divergence from contemporary central banking and monetary economics consensus norms, giving the appearance of reform followed by retrenchment. However, to paraphrase the historian Philip Kuhn, China's financial history furnishes powerful evidence that for over a century Chinese political elites have been concerned with saving China from foreign domination. While Kuhn focused on the continuity of a "constitutional agenda" which concerned the proper ordering of public life, I have here concerned myself with a "developmental agenda" which concerns itself with harnessing technological and economic power.

History thus suggests that rather than serving primarily as a Trojan horse for surveillance and foreign influence, China's digital currency was likely conceived of as means of achieving a vast digital remaking of society which will change the nature of currency and value. And rather than fuel the expansion of Ma's empire, DCEP heralds the obligation to submit to state guidance, much as Sheng and other financiers learned over the last 120 years of Chinese central banking history. In the technologically transformed world envisioned by members of the CCP, control over society's digital monetary interface will allow Chinese elites to harness and guide economic and social life to a degree that even their Soviet and Nazi intellectual predecessors would have found unfathomable.

What are the US and its allies to do? The private sector remains their greatest strength, yet so far their treatment of Libra/Diem reveals a propensity to look the gift horse in the mouth. It is clear that the relationship between monetary authorities and private sector must change. For in a way, China and the West have reversed historical roles—today, it is Western democracies concerned about "foreign domination" that must innovate and improve their financial institutions to meet the challenge of technological and economic change.

<sup>&</sup>lt;sup>126</sup> Philip Kuhn. Origins of the Modern Chinese State. Stanford: Stanford University Press, 2002.