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STATE CAPACITY AND NAVAL BUILDUP: THE SINO-JAPANESE  
DIVERGENCE IN THE LATE NINETEENTH CENTURY

SHEN Xinyi

MPHIL

LINGNAN UNIVERSITY

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DIVERGENCE IN THE LATE NINETEENTH CENTURY

by  
SHEN Xinyi

沈心怡

A thesis  
Submitted in partial fulfillment  
of the requirements for the Degree of  
Master of Philosophy in Political Science

Lingnan University

2018

## ABSTRACT

### State Capacity and Naval Buildup: The Sino-Japanese Divergence in the Late Nineteenth Century

by

SHEN Xinyi

Master of Philosophy

The East Asian modernization divergence in the late nineteenth century has long puzzled historians and social scientists. As Qing China, given its vast territory, large population and dominating influence spreading to neighboring countries, failed to modernize herself as its small island neighbor Japan did after the forced opening up by the West. One important divergence is their military capability, especially that of navy. The relatively higher capacity of the Imperial Japanese Navy has played a decisive role in its victory over the Beiyang Fleet in the 1894/95 First Sino-Japanese War. Following the defeat, Qing China was burdened with huge indemnity, eventually collapsed and entered long decades of chaos, whereas Meiji Japan continued rapid modernization, further demonstrated its military power in war with Russia, and became the only recognized power in Asia.

Explaining the Sino-Japanese divergence in naval buildup is the first step to tackle the entire modernization puzzle. Having challenged two conventional explanations of national security decision-making and economic modernization, this thesis offers a new perspective by arguing that the root of divergence lies in their different resource mobilization capacity. Specifically, I demonstrate that the elastic tax revenue, fiscal centralization and enormous borrowing capacity equipped Meiji Japan as a strong state able to quickly mobilize a vast sum of resource for expensive naval buildup and

war. In contrast, in Qing China, the growingly decentralized fiscal system, together with the stagnated tax revenue and limited borrowing capacity, made resource mobilization a prolonged struggle for the central government. Consequently, despite the statesmen's repetitive emphasis of naval security and buildup, the Chinese state's weak resource mobilization capacity has significantly hindered its pursuit of naval power and gradually widened the gap with the stronger Japanese state.

## DECLARATION

I declare that this is an original work based primarily on my own research, and I warrant that all citations of previous research, published or unpublished, have been duly acknowledged.

---

(SHEN Xinyi)

Date:



CERTIFICATE OF APPROVAL OF THESIS

STATE CAPACITY AND NAVAL BUILDUP: THE SINO-JAPANESE  
DIVERGENCE IN THE LATE NINETEENTH CENTURY

by  
SHEN Xinyi

Master of Philosophy

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Honestly speaking, completing this two-year MPhil program is the hardest phase of my past 23 years of life. It was not easy because of the physical and mental loneliness to endure, the pressure to efficiently manage my own time, the guilt feelings to deal with every night, and the growing difficulty to land a job in academia. On top of that, the journey was very hard because it was the first time for me to accept that life is not going to be perfect and smooth, and finally to learn to become flexible and readjust my goals.

With all the new and overwhelming challenges, I would not be able to successfully complete the thesis without the helps from my two supervisors: Dr. Zhang Baohui and Dr. Chan Che-po. Dr. Zhang Baohui has always been supportive, open-minded and tolerant. He allowed me to take my time to explore and satisfy my intellectual curiosity, encouraged me to obtain advises from scholars of various disciplines, and he always took the time to ease my anxiety, which is extremely helpful when I was stressed out during the last writing phase. Dr. CP Chan provided critical guidance and feedback for my research along the way, he is an extremely responsible supervisor who spent time to identify every small mistake in my thesis, and I have learnt a lot from his serious attitude toward doing research. I consider myself very lucky to have them as my supervisors. Besides, Dr. Brian Bridges also deserves a big thanks due to the comforts and encouragements I received from him. I also thank my lovely friends, floormate Zhalama, officemate Ai, sister Helen Meng and Yuzhu Lu, HKUST mate Gaby Li and senior Eva Yang, whom I continuously got generous supports and valuable advises from. Last and most important, I owe particular thanks to my most extraordinary parents, Zhou Shu and Shen Chengguang. They were the ones who encouraged me to study liberal arts instead of accounting, and they constantly reminded me to be proud of my most precious character-critical thinking. Thanks to the hardship, our family relationship has never been as healthy and strong as it is now. Words cannot express my gratefulness to them, and I wish I could be their most reliable support in the future.

Two years ago, I decided to pursue an advanced degree in political science and

history because even as a trained-teacher, I failed to answer many simple yet meaningful questions raised by my high school students. Now, with a more sophisticated yet realistic view of history and politics, I truly wish I could help the Chinese public to acquire their much-needed ability to critically read the past and presence. I consider this my mission and the fundamental source of passion and happiness.

24/09/2018, Taipei

## ***Chapter 1. Introduction***

On 25th July 1894, the Imperial Japanese Navy sank the Chinese naval transporting ship *Gao Sheng* without warning and kicked the start of the First Sino-Japanese War. The war was a culmination of the rivalries between the two countries for decades and was watched with great interest by the Western powers as a test of the relative success of the two's modernization programs. To the surprise of many observers, who without much doubt predicted the historically powerful China to be the winner, Qing China's Beiyang Fleet was heavily beaten and almost destroyed by the Imperial Japanese Navy. By April 1895, the Qing government was forced to sue for peace under humiliating terms.<sup>1</sup>

Indeed, the war result is very puzzling considering that the Great Qing Empire, with its vast territory, large population and dominating influence spreading to neighboring countries, had been historically superior for centuries. The outcome of the war, according to many military historians, was significantly affected by the two countries' divergent naval capabilities rather than factors such as tactics and command. While Qing China's Beiyang Fleet had a narrow advantage in the total displacement of warships, the Imperial Japanese Navy was overwhelmingly superior in speed and armament that were eventually translated into decisive advantage in the battlefield.<sup>2</sup>

How come the newly-formed Meiji state was able to build up a greater-capability navy than the traditionally more powerful Qing China? Existing literature, despite its

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<sup>1</sup> Allen Fung, "Testing the Self-strengthening: the Chinese Army in the Sino-Japanese War of 1894-1895," *Modern Asian Studies* 30, no. 4 (1996): 1008.

<sup>2</sup> Benjamin A. Elman, "Naval Warfare and the Refraction of China's Self-Strengthening Reforms into Scientific and Technological Failure, 1865-1895," *Modern Asian Studies* 38, no. 2 (2004): 318-319.

substantive amount, has yet to provide a rigorous explanation. Conventional explanations such as national security decision-making and economic modernization have been proved insufficient or inaccurate. In this case, studies of the formation of the so-called “fiscal-military state” are inspiring in offering insights of how some European states managed to stand out in the intensive intra-state conflicts by enhancing their capacity to pay for wars.<sup>3</sup> With the rapid technology advancement, navy became much larger, more complex in structure, more permanent and thus required more money to be maintained. And it follows logically that only a state able to raise unprecedented sums of money could catch up with these developments and become a naval power. Among all European states, it was Britain that mastered the most effective resource mobilizing tools that achieved extraordinary success in the repetitive conflicts and consolidated its position as a global naval hegemony.<sup>4</sup> In contrast, traditional continental power such as France, which ought to have come off best in view of its size and natural resources, was left behind due to lack of effective means to mobilize resources.

So what account for a state’s capacity of effective resource mobilization for fighting expensive wars? Traditional indicators such as the size of economy and bureaucratic capacity fail to indicate how much resource states could mobilize. To offer a better account, this thesis provides a three-dimensional measurement of state’s resource mobilization capacity and illustrates how it affected the Sino-Japanese naval buildup. Specifically, I argue that a strong state capable of effective resource mobilization usually fulfill three conditions: 1. *Taxing capacity*; 2. *Fiscal centralization*; 3.

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<sup>3</sup> John Brewer. *The Sinews of Power: War, Money, and the English State, 1688-1783*. (London: Unwin Hyman, 1989), 101.

<sup>4</sup> Patrick K. O’Brien, “The Political Economy of British Taxation, 1660-1815,” *The Economic History Review* 41, no. 1 (1988): 26-27.

*Borrowing capacity.* For Meiji Japan, it gradually evolved as a strong state through the tax reforms, fiscal centralization and heavy domestic borrowing. Firstly, tax revenues, especially of indirect taxes increased rapidly through centralized and efficient assessment and collection. Meanwhile, fiscal centralization was achieved by establishing a central treasury to directly manage majority of state revenue. Lastly, the punctual interest payment and establishment of a central bank enabled the government to borrow heavily from domestic market, which supported naval expansion when tax revenues were inadequate. By contrast, Qing China remained a relatively weak state with the constraints from fiscal decentralization, stagnated taxing capacity and limited borrowing capacity. After the Taiping Rebellion, the central government's effective supervision and control over provincial resources declined. Since the center was not yet able to borrow extensively from domestic market, its naval buildup could only be funded by its limited tax revenues with no increase for two decades. Eventually, the limited resources forced Qing China to discontinue naval expansion at a crucial point of time. In sum, the Sino-Japanese divergence in resource mobilization capacity largely explained their varied naval policy-making and buildup results.

The remainder of this thesis is organized as follows: The second chapter critically examines two common explanations of the Sino-Japanese naval divergence. I argue that although there is some truth to both explanations, neither adequately explains the changes in the two countries' naval expansion policies prior to the war. Next, I conceptualize state's resource mobilization capacity and argue that it is a more useful variable to explain the divergence. In the following two chapters, I provide empirical analyses of Meiji Japan and Qing China's resource mobilization capacities and argue that it was their different capacities that heavily influenced the formation and result



of naval expansion policies. The thesis concludes by a brief review of subsequent period and a discussion of theoretical implications.

## ***Chapter 2. Literature Review***

### ***2.1 What is to be explained?***

For decades, the Sino-Japanese naval divergence has received scholarly attentions due to its puzzling nature and historical significance. Since the mid nineteenth century, both Qing China and Meiji Japan came under increasing threat from the West. While both started to undertake naval buildup programs from scratch, within just two decades, Meiji Japan was able to surpass Qing China in building up a greater-capability navy. In addition to factors like tactics and command, it was naval capability that played a decisive role in determining the war result. As argued by many military historians, the Imperial Japanese Navy was superior in crucial aspects including speed, age of major warships, and armament, all of which have greatly contributed to its victory at sea (see Table 1).

**Table 1.** Comparison of Capabilities, Imperial Japanese Navy and Beiyang Fleet, 1894

Imperial Japanese Navy	Capability	Beiyang Fleet
4 capital ships, 1 armored cruiser, 12 unprotected cruisers, 7 gunboats, 26 torpedo boats	Component of main force	2 capital ships, 3 armored cruisers, 5 unprotected cruisers, 6 gunboats, 6 torpedo boats
The <i>Matsushima</i> -class		None were over 3,000 tons displacement, which was

battleships ( <i>Akitsushima</i> and <i>Yoshino</i> ) were 4,150 tons displacement.	Displacement	smaller than the 1890s' standard. However, the overall displacement of battleships were greater.
All equipped with newly-introduced 6in or 4.7in quick-firers (QF) gun with a rate of fire of 10-12 rpm (round per minute).  Average 13.52 mile/h	Armament	All equipped with 6in or 12in breech-loaders gun introduced in the 1870s, with a rate of fire of just 1 rpm. None was updated with the latest QF gun.  Average 11.68 mile/h
Five fast cruisers ( <i>Matsushima</i> , <i>Itsukushima</i> , <i>Hashidate</i> , <i>Yoshino</i> , <i>Chiyoda</i> )	Speed	No fast cruisers. The speed of early-acquired ironclads was constrained by their less advanced engines.
Average five years	Age of main force	Average seven to thirteen years

Source: Qing China: 陳悅，《北洋海軍艦船志》（青島：山東畫報出版社，2009年）；姜鳴，《龍旗飄揚的艦隊-中國近代海軍興衰史》（北京：三聯書店，2002年）。Richard N. J. Wright. *The Chinese Steam Navy, 1862-1945*. London: Chatham Publishing, 2000.

Meiji Japan: Schencking, J. Charles. *Making Waves: Politics, Propaganda, and the Emergence of the Imperial Japanese Navy, 1868-1922*. Stanford, CA: Stanford University Press, 2005; Evans, David C., and Mark R. Peattie. *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887-1941*. Annapolis: Naval Institute Press, 2012; 高橋 秀直，『日清戦争への道』（創元社，1995年）。

Table 2 further reveals how the divergence was formed and gradually widened year by year. It is clear that although Qing China started naval expansion earlier, Meiji

Japan was able to catch up since the early 1880s by launching two continuous, multiyear expansion programs. While Meiji Japan carried on expanding till the eve of war, Qing China struggled in achieving the original goals it set, slowed down the progress and eventually called off the expansion several years in ahead of the war. The stagnation of naval buildup was fatal to China’s naval capability in an age of rapid technological advancement and significantly contributed to its incoming defeat.

**Table 2.** Timeline of Naval Expansion, Meiji Japan and Qing China, 1870-1893

Meiji Japan		Qing China	
Early 1870s	The new Meiji government centralized naval forces from seaborne domains, and established the Ministry of Navy (海軍省 <i>Kaigun-shō</i> ) in 1872.	1870-73	Qing government founded Fujian and Jiangsu Navy, the first steam navies equipped with western firepower in China.
1872-82	<p>Purchased 3 small gunboats from Britain (the armored steel-hulled frigate 扶桑 <i>Fuso</i>, the armored corvettes 金剛 <i>Kongo</i>, and 比叻 <i>Hiei</i>)</p> <p>In 1882, the navy decided to discontinue the construction of wooden warships. The Yokosuka shipyard (横須賀海軍工廠) began to produce small quantities of Western steel warships after importing machinery and skilled workers from Britain.</p>	1874-77	<p><b>1<sup>st</sup> long-term expansion program:</b></p> <p>The Qing court convened the First “Grand Discussion of Seaborne Defense (海防大籌議)”. They decided to construct Beiyang and Nanyang Fleets and assigned 4 million tael of silver annually as ordinary naval maintenance fee.</p> <p>In 1875, purchased 4 gunboats from Britain. (龍驤，虎威，飛霆，掣電)</p>

1883-85	<p><b>1<sup>st</sup> long-term expansion program:</b></p> <p>Length: 8 years (1883-1891)</p> <p>Cost: Over 24 million yen in total</p> <p>Scale: 46 warships (22 torpedo boats and cruisers)</p> <p>Purchased 2 protected cruisers from Britain. (難波 <i>Naniwa</i> and 高千穂 <i>Takachiho</i>)</p>	1878-84	<p>In 1878, purchased another 4 gunboats from Britain (鎮東，鎮西，鎮南，鎮北) and another 3 next year (鎮中，鎮邊，海清鏡)</p> <p>In 1881, purchased 2 ironclads, 2 protected cruisers, 1 ram cruiser and 2 torpedo boats from Germany. They became the major forces in the First Sino-Japanese War. (2 ironclads: 定遠，鎮遠; 2 protected cruisers: 超勇，揚威; 1 armored cruiser: 濟遠)</p>
1886-92	<p><b>Further additions to the 1882 program:</b></p> <p>Extra 7 million yen for naval expansion by issuing naval bonds.</p> <p>Purchased 2 cruisers from France (松島 <i>Matsushima</i> and 嚴島 <i>Itsukushima</i>) and construct 1 cruiser (橋立 <i>Hashidate</i> at the Yokosuka shipyard), 3 coastal warships, 2 small cruisers, and 16 torpedo boats.</p> <p>In 1887, purchased a revolutionary torpedo boat (Destroyer, 小鷹 <i>Kotaka</i>) from Britain. In 1889, Purchased an armored cruisers (千代田 <i>Chiyoda</i>) from France.</p>	1885-88	<p><b>2<sup>nd</sup> wave of expansion:</b></p> <p>The defeat at the Sino-French War led to the second “Grand Discussion of Seaborne Defense”. Although court again stressed the importance of seaborne defense, there was no increase in ordinary naval expenditure.</p> <p>Purchased 4 protected cruisers and 7 torpedo boats from Germany and Britain respectively.</p> <p>(4 protected cruisers: 致遠，靖遠，經遠，來遠)</p>

1893	<p>In 1892, purchased the fastest cruiser in the world (吉野 <i>Yoshino</i>) from Britain. The backbones of the Imperial Japanese Navy in the battlefield were formed.</p> <p><b>2<sup>nd</sup> long-term expansion program:</b>  Length: 7 years (1893-1900)  Budget: 18 million yen  Scale: 2 ironclads, 1 cruiser, and 1 dispatch boat</p> <p>Before the eve of the war, the cabinet provided enough funds to purchase 3 warships from Argentina at a cost of over 9 million yen and 1 battleship from Chile at a cost of 3 million yen. Those warships, while did not participate in the 1894's war, demonstrated Meiji Japan's great capacity in further strengthening its navy.</p>	1889-93	<p><b>Termination of expansion:</b>  In 1891, the Qing government decided to discontinue the <b>naval expansion for 3 years</b> upon the request of the Board of Revenue (戶部, the Ministry of Finance in Qing China). From then on till 1894, the Beiyang Fleet only acquired one domestically-constructed armored cruiser 平遠 and did not further expand.</p>
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Source:

For Qing China: 姜鳴，《龍旗飄揚的艦隊-中國近代海軍興衰史》（北京：三聯書店，2002 年）；王家儉，《中國近代海軍史論集》（臺北：文史哲出版社，1984 年）。

For Meiji Japan: Schencking, J. Charles. *Making Waves: Politics, Propaganda, and the Emergence of the Imperial Japanese Navy, 1868-1922*. Stanford, CA: Stanford University Press, 2005; Ono Giichi, *War and Armament Expenditures of Japan*, New

York: Oxford University Press, 1922; 高橋 秀直, <松方財政期の軍備拡張問題>, 『社会経済史学』 56(1), 1990, 頁 21; 池田 憲隆, <松方財政前半期における海軍軍備拡張の展開: 1881-83 年>。『人文社会論叢』(社會科學篇), 6, 2001, 頁 48; 池田 憲隆, <日清戦争直前期における海軍軍備拡張計画と海軍省費: 1890-1893 年>。『人文社会論叢』(社会科学篇), 24, 2010, 頁 99。

The purpose of this research is to explain this puzzling historical divergence: given similar starting point, why did Qing China, by all measures of comparative advantages, lag behind Meiji Japan in naval buildup before the First Sino-Japanese War? This is not a new question. However, I argue that it deserves a reexamination as the existing explanations are largely inadequate. In the next chapter, I first evaluate two conventional explanations and find them insufficient to account for the nuances of Japan and China's naval expansion policies during the two decades. Then I propose and conceptualize a new variable, state capacity of resource mobilization. Through the analyses of the two states' respective capacities and corresponding naval expansion policies, I argue that the state's resource mobilization capacity, consisting of taxing capacity, fiscal centralization, and borrowing capacity, can better explain the two countries' varied naval buildup success.

## ***2.2 Alternative explanations***

A lot of scholars seek to unlock the reasons for Japan's rise and China's fall. In spite of their substantive research, there still exist several problems. First, since most of these studies are conducted by historians, they tend to focus on narrating general history and specific incidents yet seldom undertake serious causal-inquiry.<sup>5</sup> Second,

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<sup>5</sup> Classical work includes: 包遵彭, 《中國海軍史》(臺北: 海軍出版社, 1951 年); 戚其章, 《北洋艦隊》(濟南: 山東人民出版社, 1981 年); 王家儉, 《中國近代海軍史論集》(臺北: 文史哲出版社, 1984 年); 姜鳴, 《龍旗飄揚的艦隊-中國近代海軍興衰史》(北京: 三聯書店,

in spite of abundant studies of individual country, there is a severe lack of comparative studies that use the same set of independent variables to test the divergence. For example, while many Chinese scholars argue that it was the serious corruption that harmed the Beiyang Fleet's competency, there is no study examining whether similar problem also affected the Imperial Japanese Navy. In this case, any causal-relations drawn from those studies could be highly-biased.

To answer the central research question raised above, neoclassical realism is useful in providing us with the insights of how foreign and national security policy is made. While in line with structural realism's insight that systemic forces create incentives for all states to strive for providing security for themselves, neoclassical realism argues that the systemic imperatives must filter through the medium of state structure and be affected by how top officials assess likely threats, identify viable strategies in response to those threats, and ultimately extract and mobilize the societal resources necessary to implement and sustain those strategies. For instance, purely systemic explanations of foreign policy presume a reasonably accurate apprehension by officials of the distribution of power and a direct translation of such apprehensions into national policy, but in realities those officials may fail to accurately perceive the power shift and/or be prohibited to take action due to internal fragmentations.<sup>6</sup> In addition, to balance against others, states are also assumed to have an unlimited capacity to mobilize resources from society, whereas in fact national leaders may not

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2002 年)；馬幼垣，〈靖海澄疆——中國近代海軍史事新詮〉（北京：中華書局，2013 年）。Liu Kwang-ching, "British-Chinese Steamship Rivalry in China, 1873-85," *The Economic Development of China and Japan*, edited by C. D. Cowan. London: George Allen & Unwin Ltd., 1964. Deng Gang. *Maritime Sector, Institutions, and Sea Power of Premodern China*. Westport, CT: Greenwood Press, 1999. John, L. Rawlinson. *China's Struggle for Naval Development: 1839-1895*. Cambridge, MA: Harvard University Press, 1967.

<sup>6</sup> For representative work, see Aaron L. Friedberg, *The Weary Titan: Britain and the Experience of Relative Decline, 1895-1905*. (Princeton: Princeton University Press, 1998); Randall L. Schweller. *Unanswered Threats: Political Constraints on The Balance of Power*. (Princeton: Princeton University Press, 2008)

have easy access to a country's total resources. Therefore, we must take into consideration both the systemic-level variables and unit-level ones to pursue a less parsimonious yet more accurate theory of foreign policy.<sup>7</sup>

In the following section, I select two common explanations, namely the “national security decision-making” thesis and “economic modernization” thesis that generally fit into the neoclassical realist framework, and I argue that neither of them is adequate to explain the Sino-Japanese naval divergence. First, the national security decision-making thesis overstates the difference in the two countries' attitudes toward naval defense and in their decision-making capacity. Second, while the economic modernization thesis rightly points out the importance of resource, it oversimplifies the complicated relationship between economic development and the amount of resource the state able to control. Last, inspired by the “fiscal-military state” approach, I propose a more three-dimensional variable, state capacity of resource mobilization, as the primary reason behind Meiji Japan and Qing China's divergent naval buildup.

### ***2.2.1 National security decision-making***

The first common explanation traces the Sino-Japanese naval divergence to the two countries' national security decision-making capacity. In brief, scholars holding this thesis argue that the Japanese statesmen put more weight on national security and developing its seapower than their Chinese counterparts, who held a relatively indifferent attitude, only passively responded after security crises, and focused more

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<sup>7</sup> For representative work, see Thomas J. Christensen, “Perceptions and Alliances in Europe, 1865-1940,” *International Organization* 51, no. 1 (1997): 65-97; Fareed Zakaria, *From Wealth to Power: The Unusual Origins of America's World Role*. (Princeton: Princeton University Press, 1998).



on landpower. The difference is evidently reflected in the two countries' institutional settings. In Meiji Japan, the Ministry of Navy (海軍省 *Kaigun shō*) was founded soon after the Restoration as an independent ministry participating in the highest-level decision-making. Later, the General Staff (參謀本部 *Sanbō honbu*) was established to take charge of strategic planning and military operation, ensuring that the military would stay above political parties' maneuvering, and would be loyal directly to the emperor rather than to a prime minister who might attempt to usurp the emperor's authority.<sup>8</sup> These institutions adding up together are said to make military buildup top priority in state agenda. By contrast, Qing China's institutions were rarely updated in spite of the increased foreign threats. On the one hand, there was no independent department for managing naval affairs. Instead, the responsibility of naval buildup was delegated to two governors-general (總督), who were heavily burdened with the planning and administration of all relevant affairs. Even though a Board of Navy (海軍衙門) was set up in 1885, it was primarily an administrative institution that did not enjoy the decision-making power as its Japanese counterpart did. On the other hand, there was no centralized institution for national security decision-making until the very end of the Qing dynasty, which was likely to have delayed the state's reaction to security challenges.<sup>9</sup> Last, they also argue that Meiji Japan and Qing China diverged in their commitment to sea power and land power. While Meiji Japan was keen on becoming a sea power due to its geographic location, Qing China ruled by a nomadic Manchu clan was more willing to strengthen its land power, as evidenced by the court's prioritization of the Reconquering of Xinjiang (西征/塞防) over naval defense in the middle 1870s.<sup>10</sup>

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<sup>8</sup> Schencking, J. Charles. *Making Waves: Politics, Propaganda, and the Emergence of the Imperial Japanese Navy, 1868-1922*. (Stanford, CA: Stanford University Press, 2005), 10-15.

<sup>9</sup> 姜鳴，《龍旗飄揚的艦隊-中國近代海軍興衰史》，頁 20-38。

<sup>10</sup> 楊策，〈論所謂海防與塞防之爭〉，《近代史研究》，1987 年第五期，頁 54-71。劉新華，秦儀，〈略論晚清的海防塞防之爭——以地緣政治的角度來考察〉，《福建論壇：人文社會科學

Even though all these differences are valid, the influences from decision-making turned out to be not drastically different in the two countries. First, previous literatures suggest that instead of being coherent, the Japanese statesmen were actually divided by the “strong military” (強兵 *kyōhei*) and “wealthy nation” (富国 *fukōku*) camps over how the limited resources should be deployed.<sup>11</sup> The military’s privileged institutional status and direct connection with the emperor did not guarantee sufficient budgets for its expansion, especially when the “wealthy nation” camp controlled decision-making in the late 1870s.<sup>12</sup> Conversely in Qing China, the existence of the conservatives did not severely impede naval expansion. Although officials held different opinions of learning from the west, few directly downgraded the importance of naval defense. A conservative official who doubted the intention of Li Hongzhang and advocated for stopping naval buildup was even punished by the Empress Dowager Cixi for “raising unreasonable charge (任意揣摩，危詞聳聽，實屬謬妄)”<sup>13</sup> As for the sea power thesis, it has been argued by naval historians that despite Japan’s geography as an island country, for the decades before the war, its navy was in a disadvantaged position in the inter-service rivalry with the army for resources. While in Qing China, naval buildup was only postponed for one year until the issue was raised up again and secured annual budgets.<sup>14</sup>

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版》，2003 年第 5 期，頁 90-94。

<sup>11</sup> Banno Junji and Kenichi Ohno. *The Flexible Structure of Politics in Meiji Japan*. The Leader, Elites and Coalitions Research Programme. (University of York, U.K, 2010), 1-3.

<sup>12</sup> Schencking, *Making Waves*, 24.

<sup>13</sup> 張俠，〈禦史林紹年奏停止海軍報效片〉；〈嚴行申飭林紹年懿旨〉，《清末海軍史料》（北京：海洋出版社，1982 年），頁 642-645。Eastman, Lloyd, E. Ch’ing-I and Chinese Policy Formation during the Nineteenth Century. *The Journal of Asian Studies* 24, no. 4 (1965): 605.

<sup>14</sup> Schencking, *Making Waves*, 38.; 王宏斌，〈晚清海防思想與制度研究〉，（北京：商務印書館，2005）頁 57。劉增合，〈左宗棠西征籌餉與清廷戰時財政調控〉，《近代史研究》，2017 年第 2 期，頁 84-99。

In sum, a careful examination of history shows that it was not until the victory in the First Sino-Japanese War did the Imperial Japanese Navy start to gain power and prestige. Only when the first generation of Meiji oligarchs faded from the stage did the navy's institutional privileges started to take full effect and gave rise to the early Japanese "militarism".<sup>15</sup> Moreover, the statement that Japan was more devoted to seapower while China to landpower is inaccurate. During the examined period, naval buildup was more of urgent response to security threat than strategic planning in both Meiji Japan and Qing China, and thus the national security decision-making is likely to have played a limited role in affecting naval buildup. Nonetheless, I do not argue that the impact of decision-making should be eliminated. What I suggest is that the decision-making capacity may carry less weight than the variable that I will propose later.

## ***2.2.2 Economic modernization and resource***

Another popular explanation is the "economic modernization" thesis that attributes Meiji Japan's naval success to its ability to invest in more resources, especially fiscal resources.<sup>16</sup> Indeed, building up a modern standing navy constituted great fiscal challenges to states in an era when naval technologies were updated at a surprising speed under the motivation of foreign aggression. In the 1800s, a new form of propulsion, the steam engine, began to transform the navies. In the 1820s, the first steam-powered warship was produced. And by 1850, the invention of the propeller

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<sup>15</sup> Shinichi Kitaoka. "The Army as a Bureaucracy: Japanese Militarism Revisited," *The Journal of Military History* 57, no. 5 (1993): 67-72; Eleanor Westney. The Military. In *Japan in Transition: From Tokugawa to Meiji*, edited by Jansen, Marius B. (Princeton, New Jersey: Princeton University Press, 2016), 225.

<sup>16</sup> 陳先松：〈北洋防經費收數考述（1875-1894）〉，〈中央研究院歷史語言研究所集刊〉，2013年第84期，頁595-599。

ship made the side-wheeler ship obsolete and freed even more deckspace to carry more guns. In 1855, the French introduced iron plating along the wooden hull for increased protection, which made wooden-hulled vessels obsolete. Again, in just five years, the British launched the world's first ironclad H.M.S. Warrior, of which the equipment rose up the cost of naval buildup to a new level.<sup>17</sup> By the time Meiji Japan and Qing China started their naval buildup, the fiscal challenges faced by the two countries were ever greater than before.

Empirically, this argument could find strong statistical supports. As shown in Table 3, Meiji Japan has surprisingly invested around 1.3 times the amount of Qing China in naval buildup. The enormous gap in fiscal investment has undoubtedly led to divergence in naval capability. Nonetheless, a shortcoming of this account is it rests on an implicit assumption that the state's rich resource is caused by economic modernization. Specifically, it has been assumed that the Meiji government became wealthier because of its successful economic modernization and industrialization after a series of state-led mercantile and industrial-promotion programs following the Restoration.<sup>18</sup> Whereas the Qing state never made such effort, if not interrupted the normal growth of private business.<sup>19</sup> In short, there is a vague belief that economic modernization will naturally lead to growth in state wealth.

**Table 3.** Total Naval Expenditure, Meiji Japan and Qing China, 1875-1894

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<sup>17</sup> Lambert, Andrew. D. Introduction. In *Steam, Steel and Shellfire: The Steam Warship, 1815-1905*, edited by Robert Gardiner, 1-9. London: Conway Maritime Press Ltd, 1992.

<sup>18</sup> For example, see Sarah. C. M. Paine. *The Sino-Japanese War of 1894-1895: Perceptions, Power, and Primacy*. Cambridge: Cambridge University Press. 2003. Chapter 2; 姜鳴,《龍旗飄揚的艦隊-中國近代海軍興衰史》(北京:三聯書店,2002年),第四章;戚其章,《北洋艦隊》(濟南:山東人民出版社,1981年),第三章;王家儉,《中國近代海軍史論集》(臺北:文史哲出版社,1984年),第五章。

<sup>19</sup> Whether early Meiji Japan was a “developmental state” is still debated by political economists and is not the focus of this study.

Country	Qing China	Meiji Japan
Expenditure	57.47 million tael*	118.52 million yen (equals to 75 million tael^)

\*The naval expenditure of Qing China includes the expenditure of Nanyang Fleet and Fujian Navy, which roughly costs one third the amount of Beiyang Fleet according the estimation of 陳先松。

^The exchange rate of the Japanese yen to Qing Kuping tael of silver is about 1.4:1, which is derived from 戚其章，〈甲午戰爭賠款問題考實〉，《歷史研究》，總第 75 期（1998 年 3 月），頁 65。

Source: Meiji Japan: Ono Giichi, *War and Armament Expenditures of Japan*, New York: Oxford University Press, 1922: pp. 24, 46; Qing China: 陳先松〈北洋防經費收數考述（1875-1894）〉，《中央研究院歷史語言研究所集刊》，2013 年第 84 期，頁 596。

While such argument looks reasonable from surface, the relationship between economics and state resource is likely to be more unidirectional in practices. Indeed, economic development, including the growth of economic size and modernization of economic structure, could surely contribute to state wealth by expanding the resource base for the state to tap into. The Japanese economy has experienced both rapid growth and structural change since the late 1870s. The economy grew by 8 percent from 1875 to 1880. Agriculture and small-scale industries have achieved higher productivity, partially owing to government investments in the dissemination of western technologies and equipment. But two problems still exist. First, despite growth in economy, the sheer size of economy of Meiji Japan was still less than that of Qing China, and the country has not yet been industrialized but remained largely a

pre-modern, rural setting until the early twentieth century.<sup>20</sup> Last and most important, economic development could never be automatically translated into state wealth without state's intentional extraction and mobilization, which sometimes matters even more than the economic growth. For instance, the two European naval powers, the seventeenth-century United Provinces of Holland and the eighteenth-century British state, are both relatively small in size yet so successful internationally to compete with states with substantially more demographic and economic resources. Therefore, a strong state able to effectively mobilize a large sum of resources from the society does not necessarily have a larger and more industrialized economy. Although economic growth surely matters for state's fiscal strength, the two can never be correlated in any directional way. No conclusion could be drawn before carefully examining how exactly the state extract or mobilize resources from the society.

### 2.2.3 The “fiscal-military state” approach

While studying how states manage to build up military power, the “fiscal-military state” approach has been widely used by historians of European states to explain the rise and fall of great powers. A fiscal-military state is defined as one that is capable of sustaining large-scale military buildup and warfare through strengthening its fiscal capacity. During the seventeenth and eighteenth century, theaters of war extended globally and armies and navies grew in size and sophistication. The cost of warfare spiraled and the ability of states to pay for warfare determined whether they could become a great power in European or global conflicts. Fiscal strength, in the words

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<sup>20</sup> Kazushi Ohkawa, M. Shinohara, M. Umemura, M. Ito, T. Noda. *The Growth Rate of the Japanese Economy since 1878*. (Tokyo: Kinokuniya Bookstore Co. Ltd., 1957), 23.

of John Brewer who invented the concept of “fiscal-military state”, equals to “the sinews of power” of the state.<sup>21</sup>

The term fiscal-military state has soon proven to be a rich vein for subsequent historians. In just a few years, it began to be used in a variety of cases beyond the original territory and time period. For example, Jan Glete argues that in the sixteenth and seventeenth century Spanish, Dutch and Swedish states were the earliest fully fledged fiscal-military states in Europe. Gausdal then incorporates the seventeenth-century Denmark and Norway into the list. Afterwards, the list has been extended to England before 1688, China from 771 BCE to 220 BCE, the sixteenth-century Russia, and the nascent United States.<sup>22</sup>

Despite the accumulation of case studies, the very success of the fiscal-military state concept has also brought its own pitfalls. Without sufficient attention paid to the core institutional elements of the fiscal military state by researchers, who are usually historians, the concept has been loosely applied to analyze very different cases that bear little relationship with each other. Consequently, the lack of clarity has made the

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<sup>21</sup> Brewer, *The Sinews of Power*, 201.

<sup>22</sup> For Spain, Dutch Republic and Sweden, see Jan Glete, *War and the State in Early Modern Europe: Spain, the Dutch Republic and Sweden as Fiscal-Military States, 1500-1660* (London & New York: Routledge, 2002), 66. For Denmark and Norway, see Gausdal RL, “The increasing power of the state and the Norwegian governor general in the seventeenth century,” *Historisk Tidsskrift* 84, no. 1(2005): 35. For England before 1688, see Michael Braddick, *State Formation in Early Modern England, c. 1550-1700* (Cambridge: Cambridge University Press, 2000), 177. For China, see Michael Mann, “Putting the Weberian State in its Social, Geopolitical and Militaristic Context: A Response to Patrick O’Brien,” *Journal of Historical Sociology* 19, no. 4 (2006): 370. For Russia, see Chester Dunning and Norman Smith, “Moving beyond Absolutism: Was Early Modern Russia a “Fiscal-Military” State”, *Russian History* 33, no. 1(2006): 43. For U.S., see Max Edling, *A Revolution in Favor of Government. Origins of the U.S. constitution and the Making of the American State* (Oxford: Oxford University Press, 2003), 220.

concept blurry. To enable more meaningful cross-national comparisons, in the coming part I will try to emphasize three important determinants of efficient fiscal military state and introduce a new concept, state capacity of resource mobilization, to explain the Sino-Japanese naval divergence.

### ***2.3 A three-dimensional approach: State Capacity of Resource Mobilization***

What determine how much resource a state could effectively mobilize, if the size and structure of economy could not fully explain? The Weberian definition of state led to a predominant focus on the role of bureaucracy among existing studies. Specifically, they propose that a merit-based, functionally organized, and technically qualified professional bureaucracy contribute to a strong state.<sup>23</sup> However, solely relying on bureaucracy is risky as it not only overlooks many alternative methods of resource mobilization like borrowing, but also ignores the complicated state structure that exists between the bureaucracy and the central government. As stated above, neither could another frequently-used measurement, the gross domestic production (GDP) per capita, serve as a good enough indicator of how much resource a state could mobilize. Then what determine whether a state could effectively mobilize a large sum of resources? Drawing from existing research of the fiscal-military states, I propose three important determinants of state capacity in resource mobilization: taxing capacity, fiscal centralization, and borrowing capacity. They together shall enable states to effectively mobilize a large amount of fiscal resources to suffice the huge demands from war preparation.

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<sup>23</sup> Francis Fukuyama. "What is Governance?" *Governance* 26, no.3 (2013): 347–354.



### ***2.3.1 Revenue collection: taxing capacity***

There are many ways by which states could squeeze resources out of their citizens, and taxation is likely to be the most important one of these devices. Economic historians have charted the transition over a long period from what has been called the “domain state”, in which most revenue derives from crown-owned property, such as royal estates, forests, and mines, to the tax state in which majority of state revenue comes from taxation. The transformation from domain state to tax state is deemed as a remarkable change as taxation provides an expanding, regular source of revenues for the state and its extraction has greatly enhanced state’s penetration into the society.<sup>24</sup>

What determine a state’s capacity of taxing? First, administrative capacity matters for a state to effectively tax its economy. Bureaucracy is the tool of politicians to implement policies they have planned. When politicians decide to finance all or part of the military by tax revenue, they turn to their bureaucracy to extract resources from society. Therefore, the ability of bureaucracy to effectively implement policy is important in determining whether the policy programs can be carried out in the way it was planned.<sup>25</sup> One example of the effect of administrative capacity on tax collection is British and French financing of the Anglo-French Wars. Initially, both states contracted out tax collection to a private consortium of tax farmers, who were proved inefficient as they took a large amount of collected revenue as payment. Over near hundred years of war with France, the British government gradually eliminated

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<sup>24</sup> E. Ladewig Petersen, “From domain state to tax state,” *Scandinavian Economic History Review* 23, no. 2(1975): 118.

<sup>25</sup> Carpenter, D. P. *The Forging of Bureaucratic Autonomy: Reputations, Networks and Policy Innovation in Executive Agencies, 1862-1928*. (Princeton: Princeton University Press, 2001), 36.

its reliance on tax farming and replaced it with employees of state departments who were characterized by a number of features of modern bureaucracy. As the state developed a comprehensive system of record-keeping, defined office procedures and routine, and attracted increasingly inbred and institutionally loyal administrators, these bureaucrats displayed increased skill and efficiency in the extraction of taxes, especially that of excise duties. The administrative reform contributed to the impressive growth in total excise revenues in Britain during the eighteenth century.<sup>26</sup> Conversely, the French government, while having a much larger economy, was unable to make the necessary reforms to its tax administration and was thus unable to derive more revenues from taxation as a source of war finance.<sup>27</sup>

Nonetheless, states are usually not at its will to invest in administrative capacity as they are simultaneously constrained by social resistance to tax burden. As Margret Levi argues, states' revenue maximization drive is always subject to societal resistance, which may take the institutional channel or expressed in a violent form.<sup>28</sup> In this case, states may either not have the autonomy in deciding tax rate or face high political costs when trying to increase tax rates. Eventually, states' revenue maximization drive is subject to the constraints of their relative bargaining power against corresponding societal groups who bear the tax burden.

Notably, the requirement of administrative capacity and intensity of social resistance always vary by the type of taxes to be collected. For instance, the extraction of tariffs

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<sup>26</sup> Patrick K. O'Brien. "Fiscal exceptionalism: Great Britain and its European rivals from Civil War to triumph at Trafalgar and Waterloo." In *The Political Economy of British Historical Experience 1688-1914*, edited by Winch, Donald and O'Brien, Patrick, 245-266. Oxford: Oxford University Press, 2003.

<sup>27</sup> Kennedy, P. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000*. (New York: Random House, Inc., 1987), 27.

<sup>28</sup> Margret Levi, *Of Rule and Revenue*. (Berkeley: University of California Press, 1988), 25.

usually requires less administrative capacity than that of domestic taxes, for tariffs could be centrally collected at ports and on narrow bands of the economy, and thus the types of administrative capacity and political compliance necessary for its collection are rather different than those associated with domestic taxes. In terms of social resistance, direct taxes, due to its relative salient nature and involvement of a large population basis, are usually more politically sensitive than indirect taxes levied on certain social groups occupying a smaller proportion of population. For example, instead of taxing the entire population, the British government selectively picked certain social groups and commodities to bear the mounting extractions of the state. As a result, the assessment and collection of taxes within the British kingdom provoked only the mildest of political crises over the eighteenth century. The strategic distribution of tax burden was the key to the state's ability to make rising taxation tolerable and politically manageable from 1660 to 1815.<sup>29</sup>

### ***2.3.2 Fiscal Centralization***

The second and often overlooked determinant is the degree of fiscal centralization, namely, *the extent to which the government could centralize the control of state resources*. Fiscal centralization is important to be considered due to the existence of competing agents within the state structure. State is not a monolithic entity but often has a complex structure both horizontally in terms of numerous ministries and vertically in terms of different levels of government. Frequently, the central government had to rely on local agents for both revenue collection and allocation. However, fiscal decentralization happened when the local governments (the agents) do not share the central government (the principal)'s aims, or in other words, when

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<sup>29</sup> Patrick K. O'Brien, "The Rise of a Fiscal State in England, 1485-1815," *Historical Research* 66, no. 106 (1993): 165.

there exists an asymmetry of preference. Under such circumstances, revenues are likely to not be collected or/and spent for the purposes that the central government intends to. Therefore, one must go beyond the taxing capacity to examine the central-local fiscal relation in order to understand how much resource the central government could actually deploy. This is particularly important here because modern naval buildup is usually the responsibility of central government, and it is eventually the portion of state revenue that the central government can control that determines whether naval buildup could be successfully carried out.

There are multiple ways to achieve fiscal centralization. First, the central government may choose to enhance its supervision over local administrations in revenue collection and allocation. However, monitoring local governments' activities is a formidable task for pre-modern states because of the potential asymmetry in information caused by spatial distance and restriction of transportation and technologies. In practice, monitoring revenue collection of local bureaucrats may be susceptible to corruption and venality, and its dependency on the possibilities of communication with regions outside the administrative center, and on the viability and efficacy of sanctions could all make supervision a difficult and ineffective. In this case, a more feasible option is to minimize local agents' involvement in the collection of important revenue and resource allocation. Specifically, instead of solely depending on local administrations to collect revenues, the central government could gain firmer control of valuable source of revenue by replacing local tax administration with centrally-dispatched bureaucrats that are directly responsible to the center. Additionally, rather than entrusting the task of resource allocation to local agents, the central government may establish a central institution (usually treasury or central bank) and order local governments to remit majority of their collected

revenues to it for centralized allocation. These reforms would leave local governments with less fiscal autonomy and thus enhance the central government's control of state resources.

In the case of the eighteen-century Europe, the development of a sizeable civilian administration to centrally manage states' fiscal activities is another salient character of the most capable fiscal-military state. While public finance remained decentralized through most of the 1700s, centralization took place swiftly and permanently throughout much of the continent from 1789 onwards.<sup>30</sup> Again, Britain was a highly centralized state in which state revenues were exceptionally well controlled by the bookkeepers in Whitehall. Specifically, the British central government succeeded in producing a remarkably centralized fiscal system in which all state departments, those of both receipt and disbursement, were accountable to the Treasury Board, this enabled Britain to become the first state to keep full accounts of total government revenue and expenditure. Additionally, it also centralized the collection of the most important source of revenue-the excise duties. These reforms have facilitated Britain's effective resource mobilization for investing in military buildup. In sharp contrast, the United Provinces of Holland, despite being another capable fiscal-military state, was highly decentralized as the seven provinces still retained considerable fiscal autonomy. Revenues were entirely collected and controlled by regional authorities who shared a proportion upward for or a common purpose under negotiated agreements. The fiscal decentralization of Holland is said to have contributed to its defeat in war with Napoleon. Since each province attempted to free ride on the tax contributions of others, revenues controlled by the republic

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<sup>30</sup> Mark Dincecco. "Fiscal Centralization, Limited Government, and Public Revenues in Europe, 1650-1913," *The Journal of Economic History* 69, no. 1 (2009): 52.

government were inadequate to cover the huge interests generated from wartime debts. Similarly, in France, the Royal Treasury was receiving only half of the state's total revenues as late as 1788.<sup>31</sup>

### **2.3.3 *Borrowing capacity***

Borrowing is another important mean for state to mobilize resource. Both European naval powers, the United Provinces of Holland and its British successor, were extraordinary borrowers capable of borrowing heavily at relatively low rates of interest and over a long term.<sup>32</sup> In Britain, it was the well-organized system of public borrowing, so greatly superior to that of France, which made it possible for the government to tap the country's wealth for war purposes far more effectively than could have been done by taxation alone. In their summative book, Bonney and Ormrod distinguished a "fiscal state" from "tax state" by "the capacity to borrow sums on a scale unthinkable in earlier eras without any significant debt reduction."<sup>33</sup> Comparing with taxation, borrowing is an innovative technique that enables the state to instantly extract societal wealth on a wholly new scale without going through the formidable process of bargaining with social groups.<sup>34</sup> The more a government can borrow, the greater its immediate ability to carry out its chosen policies.

Of the various forms of borrowing, the long-term bonds that do not need to be redeemed within a short period is deemed as the most desirable one. The so-called

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<sup>31</sup> Brewer, *The Sinews of Power*, 17.

<sup>32</sup> Karen A. Rasler and William R. Thompson. "Global Wars, Public Debts, and The Long Cycle," *World Politics* 35, no.4 (1983): 489-516.

<sup>33</sup> Richard Bonney. *The Rise of the Fiscal State in Europe c.1200-1815*. (New York: Oxford University Press, 1999), 2.

<sup>34</sup> Wantje Fritschy. *Public Finance of the Dutch Republic in Comparative Perspective: The Viability of an Early Modern Federal State (1570s-1795)*. (Leiden: Brill Press, 2017), 25.

“Financial Revolution” in Britain (1693-1720) was marked exactly by the replacement of short-term debt with long-term bonds secured by specific sources of revenue.<sup>35</sup> In other words, it was a transformation of debt redeemable at a short notice into debt that either need never be redeemed or need only be repaid some years hence. The funded long-term bonds are superior than the short-term ones in three aspects. First, subscribers to the bonds were paid back annually over long-periods, which helped the government to finance the immediate needs of war on a relatively small and inelastic revenue base. While tax revenues may not be sufficiently elastic to finance urgent demands of war, they would suffice to pay the interest on long-term bonds, for which the government was not bound to repay the principal before a distant date. Second, the bonds were “funded”, meaning that government set aside specific revenues to meet interest payments, a feature that further enhanced confidence in lending to the government. Third, the funded debt allowed the government to borrow large sums to finance wars via a policy of tax smoothing. Financing wartime expenditures by borrowing, then servicing and amortizing the debt by taxation in peacetime, lowers the total costs of resource mobilization because it produces fewer distortions in the investment decisions of private economic agents.

What affects a state’s ability to borrow? Case studies of Dutch Republic and Britain, which possessed the most outstanding borrowing power in the seventeenth century Europe, demonstrate that a state’s ability to float bonds would be contingent on its creditworthiness and availability of effective financial institutions. Firstly, North and Weingast argued that the 1688 English Glorious Revolution enhanced the state’s creditworthiness by putting institutional constraints on the monarchs’ behaviors. The

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<sup>35</sup> Peter. G. M. Dickson, *The Financial Revolution in England: A Study in the Development of Public Credit, 1688-1756*. (London: The Macmillan Press, 1967), 46.

political reform restored the parliament as the political and financial watchdog by inhibiting future monarchs from arbitrary taxation, confiscations, or repudiations of debt, therefore sending security signals to potential investors who now worried less about the monarch's default.<sup>36</sup> Secondly, other than power-checking institutions, state's creditworthiness is also deeply connected with its ability to make punctual interest payments to creditors. Britain's effective tax system was a prerequisite of the large-scale borrowing that revolutionized state finance.<sup>37</sup> As argued by Brewer, these 60,000 British public creditors to whom the state owed money at the outbreak of the Seven Years War chose to invest in government bonds precisely because they were secure, and their warranty was not only the pledge of king, lords, and commons to honor the debt, but also the ability of tax collectors to service it.<sup>38</sup> Fiscal centralization is also crucial for enhancing state's aggregate borrowing capacity. For example, in the case of the Dutch Republic, Holland's financial revolution had been based upon the decentralized, strong financial tradition of the town that had managed large-scale loans through annuities at least since the fourteenth century. Although in the sixteenth century that tradition had been upgraded to encompass the whole Holland province, in no way could tax revenues from the other six provinces be used to service the creditors in mainly Holland towns. This decentralized setting in the long run proved to be a disadvantage.<sup>39</sup> In short, it is important for the central government to secure a large proportion of revenues to be used as capital to leverage

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<sup>36</sup> Douglass C. North and Barry R. Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *The Journal of Economic History* 49, no. 4 (1989): 80.

<sup>37</sup> Other than taxation, scholars also argue that political system and financial institution could enhance the credibility of the central government's promises to repay its debts by effectively constraining its future behavior. For example, see Douglass C. North and Barry R. Weingast. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *The Journal of Economic History* XLIX, no. 4(Dec, 1989): 805.

<sup>38</sup> Brewer, *The Sinews of Power*.; Christophe Charmley. "Interest Reductions in the Politico-Financial Nexus of Eighteenth-Century England," *The Journal of Economic History* 71, no. 3 (2011): 557.

<sup>39</sup> Marjolein't Hart, "Mobilizing resources for war. The Dutch and British Financial Revolutions compared," in *War, State and Development: Fiscal-military States in the Eighteenth Century*, ed. Rafael Torres Sanchez (Ediciones Universidad de Navarra, 2007), 196.



long-term fiscal resources from the markets.

Second, financial institutions can also contribute directly and indirectly to state's borrowing capacity. Firstly, an integrated financial system would facilitate borrowing by channeling available public credit to the state. Debt is not necessarily a bilateral relation between the government and the creditor who retains the debt until maturity.

It can also be a financial product bought and sold on the financial market.

Alternatively, government can also issue debts on the financial markets without establishing any special relationship with its creditors. In this case, creditors do not buy government debt to hold it until it matures but to sell it at a profit at any time.

The advantage of this development for the government was that issuing debts on financial markets increased the number of potential investors and could reduce the price that government had to pay for its debt in stable times.<sup>40</sup> Secondly, certain financial institutions sometimes also directly enhance state's borrowing power. For instance, the Bank of England was primarily established as an instrument to enhance government's urgent fund raising. Unlike today's independent central bank, the Bank of England was established as a joint-stock company that provided long-term credit to the financially exhausted government in return for a monopoly on issuing banknotes as legal tender. With its monopoly of currency issuance, the bank helped the government to transform its debt into paper notes circulated in the economy.<sup>41</sup>

In the remaining chapters, I examine the evolution of Meiji Japan and Qing China's resource mobilization capacity and naval buildup policies. I argue that the divergence

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<sup>40</sup> Jenny Preunkert. "Financialization of government debt? European government debt management approaches 1980-2007," *Competition & Change* 21, no. 1(2017): 28.

<sup>41</sup> Helleiner E. *The Making of National Money. Territorial Currencies in Historical Perspective*. (Ithaca, NY: Cornell University Press: 2003), 78.

in naval buildup was primarily caused by their growing gap in resource mobilization capacity. To be specific, after the Meiji Restoration, Japan not only expanded its resource base by improving taxing capacity, but also gained firmer control over state resource through centralizing the fiscal system. Furthermore, the government was able to quickly mobilize resources through long-term borrowing in domestic market, which helped the state to afford the multiyear naval buildup programs and urgent wartime mobilization when tax revenue alone was inadequate. By contrast, the post-Taiping Rebellion fiscal decentralization deprived the Qing central government of the de facto control of state resources. While the center could still use its political authority to press more revenues from provinces, the stagnated tax revenue and limited borrowing capacity made it hard for local governments to raise sufficient resource to meet the center's growing spending demands. Therefore, despite the Qing court repeatedly stressed the importance of naval buildup, its weak resource mobilization capacity has largely prohibited the buildup of a powerful navy that could fight at sea.

### ***Chapter 3. Meiji Japan***

In this chapter, I argue that Meiji Japan's successful naval buildup is largely attributed to its rapidly-improved resource mobilization capacity. After the Meiji Restoration, the new government actively sought to increase revenue by launching a series of fiscal reforms. First, it achieved fiscal centralization through establishing a

central treasury to directly receive and centrally allocate majority of state revenues. Meanwhile, administrations of land taxes and indirect taxes were reformed to increase tax revenue. In particular, the Ministry of Finance centralized the assessment and collection of alcohol taxes to make it an important source of state revenue. Finally, the enhanced state creditworthiness and establishment of a central bank enabled the central government to rapidly mobilize a large sum of resources from domestic financial market. All these efforts together made Japan a strong state capable of supporting the expensive naval buildup in the late nineteenth century.

### ***3.1 Historical Background: Early naval buildup and fiscal distress***

The early Japanese rulers were not devoted to becoming a seapower. Throughout the medieval period, water force organized by rival clans in the internal factional struggles and the widespread privateering on the Inland Sea constituted the only significant naval units in premodern Japan. Even the surge of overseas expansionism in the sixteenth century did little to contribute to the development of Japan as a seapower. Although the ferocious half pirates, half traders wakō stormed along the coasts of Korea and China and even into the ports of Southeast Asia, most of their fighting was inland and their tactics are more relevant to land warfare than to sea.<sup>42</sup> In a way similar with Qing China, the two and a half centuries' isolation from all but minimal contact with the West contributed to Japan's serious strategic and technological disadvantage in naval defense.

Situation began to change since the early nineteenth century. When Qing China was defeated in the Opium War of 1842, the worry that the British would soon use the

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<sup>42</sup> Schencking, *Making Waves*, 68, .

same gunboat diplomacy to open the door of Japan first occurred to some of the Japanese leadership. More immediately, Japan was forced to learn the lesson when the U.S. Commodore Perry arrived in 1853 with four warships at the Edo Bay. The totally unprepared Tokugawa shogunate was shocked into recognizing the extreme vulnerability of Japan to foreign aggression from sea. With only a collection of sail- and oar-powered coastal crafts and a few vintage cannons scattered along the coastline, and a complete absence of naval personnel who understood the requirements of modern naval war, the shogunate was forced to accept Perry's demands for ending Japan's long isolation.<sup>43</sup> Now faced with the threat of further Western encroachments on Japan's sovereignty, both the shogunate and major domains became preoccupied with naval defense, and belated efforts were made to acquire Western naval armament, technology, and training.

Nonetheless, fiscal decentralization had inhibited the development of a powerful naval force. Under the rule of Tokugawa shogunate, despite that the shogun in theory had control over all land, the domains still preserved large degree of fiscal autonomy. The shogunate only collected taxes in territories under its direct governance (幕府 *bakufu*), while daimyos were allowed to collect all the taxes and control the economic decisions within their territories, as long as they paid a portion of revenues to the shogunate. This decentralized fiscal system let the shogunate choose a decentralized way to construct navy: Instead of developing a unified national navy, the shogunate delegated the responsibility of defense to several strategically placed domains, of which the most important being Satsuma, Chōshū, Hizen, and Tosa. Consequently, both the size and strength of the naval forces were heterogeneous. The

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<sup>43</sup> David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics and Technology in the Imperial Japanese Navy, 1887-1941*. (Annapolis, Maryland: Naval Institute Press, 2012), 78.

shogunate and coastal domains relied on different models for naval construction. While the shogunate amassed a force of eight warships and thirty-six auxiliaries with the assistance from the Dutch and French governments, Satsuma chose the British model and assembled a force of nine foreign-built steam-powered ships. Although their accumulated efforts were impressive, the decentralized vessels were hardly the basis for a strong, centralized national navy. Moreover, the qualities of the purchased ships were also in question. As an American shipbuilder Joseph H. Longford described, Japan at that time was “the recognized market for the disposal of obsolete and worn-out ships of every degree, both mercantile and naval.”<sup>44</sup> Many warships, in fact, were nothing more than barges suitable only for transporting ground units.

In November 1867, the Tokugawa regime was toppled by the Restoration forces and the Meiji government was inaugurated. The following four years witnessed significant institutional changes in naval history: In 1871, Japan finally had a centrally-administered naval force when Satsuma, Chōshū, Tosa, and Hizen donated their navies to the new government, marking the institutional beginning of the Imperial Japanese Navy. In June of the same year, under the urge of Satsuma statesmen, the Ministry of Military (兵部省 *hyōbu-shō*) was separated into two independent ministries of army (陸軍省 *rikugun-shō*) and navy (海軍省 *kaigun-shō*), and henceforth ended the navy’s institutional subservience to the army.<sup>45</sup>

Nonetheless, institutional reforms did not instantly lead to growth in naval strength. In spite of the emperor’s proclamation that “the establishment of the navy and army were matters of utmost urgency”, the new government failed to undertake any

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<sup>44</sup> Schencking, *Making Waves*, 36.

<sup>45</sup> Evans and Peattie, *Kaigun*, 25.

significant expansion program before 1882. The stagnated naval buildup was primarily caused by the government's dire fiscal situation. During the first few years of the new regime, state expenditure soared because of the costs incurred in crushing the shogunate force. Meanwhile, revenues from taxes were not yet available. While total state expenditure amounted to 25 million yen in 1868, ordinary revenue was no more than 3.7 million yen. As the borrowings from big merchant houses (御用金 *goyokin*) only amounted to 5.4 million, the Meiji government had no choice but to print a total value of 48 million yen paper notes (太政官札 *dajokansatsu*) to cover its expenditures. Since the government did not have enough specie reserves, these paper notes were de facto inconvertible. The proportion of inconvertible paper notes in government total revenue was as high as 72.6 percent during January to September 1869. To make things worse, the abolition of the domains (廃藩置県 *haihan chigen*) in August 1871 made the central government burdened with the accumulated debts of the domains and the huge hereditary perpetual stipends for domain lords and samurais. As the center was not yet able to tax the entire economy, it decided to convert the stipends into government compensation bonds (金禄公债 *kinroku kosai*). In exchange for their regular stipends, approximately 310,000 ex-samurai received state bonds worth 173.9 million yen under a wide variety of conditions that included interest rates of 5 percent, 6 percent, 7 percent or 10 percent and an interest receipt period of 5 to 14 years. The total amount of the compensation bonds was more than 30 percent of the annual government expenditure in 1876 and need to be redeemed in thirty years.<sup>46</sup>

The precarious fiscal situation of the central government significantly delayed naval

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<sup>46</sup> Hugh T. Patrick. "External Equilibrium and Internal Convertibility: Financial Policy in Meiji Japan," *The Journal of Economic History* 25, no. 2 (June 1965): 188.

buildup progress. In 1872, when the Naval Vice-Minister Kawamura Sumiyoshi recommended that 20 percent of tariff revenue secured at Yokohama and other treaty ports to be used for military expansion, with the navy securing the largest amount, other leaders rejected his proposal and any hope for even the modest expansion requests. In May and October of the same year, the government again rejected Kawamura's three-ship proposal strictly on financial consideration. Once again in January 1873, Navy Minister Katsu Kaishū's outright expansion program of 104 vessels was rejected for the same reason. As claimed by the state councilors, it would be "fiscally impossible" for the young regime to implement such ambitious program.<sup>47</sup>

Meanwhile, to avoid more costs from war to further harm state's fiscal health, the new government also tried hard to prevent the hardliner from realizing foreign aggression. In 1873, fiscal difficulties forced some Meiji leaders to unite together to reject the hardliner's proposal to invade Korea. At that time, the Supreme Commander Saigō Takamori was under great pressure from soldiers who were left with nothing to do after overthrowing the shogunate and urged for foreign conquest. Using Korea's rejection of Japan's request to sign a commercial treaty, Saigō advocated for sending a plenipotentiary envoy to Korea and himself be given plenipotentiary powers for this purpose. However, their "Korea Invasion" (征韓論 *Seikanron*) proposal was eventually halted by Ōkubo Toshimichi, who just came back from the western learning tour (岩倉使節団 *Iwakura Mission*) and preferred to prioritize "industrialization".<sup>48</sup> In his famous critique of the war proposal in October 1873, Ōkubo argued:

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<sup>47</sup> Schencking, *Making Waves*, 42.

<sup>48</sup> Marius B. Jansen. *The Cambridge History of Japan. Volume 5. The Nineteenth Century*. (Cambridge: Cambridge University Press, 1989), 256.

Today government expenditures are tremendous, which our incomes cannot cover. If we open fire and send several tens of thousands of men abroad, we will incur enormous expenses. This will require heavy taxes or foreign loans or the issuance of paper money, which will lead to higher prices, social unrest and uprisings...Our government has just started to stimulate industries, and it will take several years before we get results...If we now begin an unnecessary war, spend a huge amount of money, shed blood, and worsen the daily life of people, all these government works will break like a bubble and lose several decades of time.<sup>49</sup>

Apparently, the war in the eyes of Ōkubo was “unnecessary” under government fiscal deficits. For him, the two national goals “wealthy nation” and “strong military” became separable when the state only had limited resources. Later Ōkubo and Saigō compromised toward sending an expedition troop to Taiwan, where fifty-four Ryūkyū islanders were murdered by local inhabitants in November 1871. Although a troop of 3,600 men and six warships were dispatched, the battle was small in scale with less than fifty casualties on both sides.<sup>50</sup> The potential large-scale war was purposefully averted by Ōkubo’s five-round-negotiation with Chinese officials in Beijing. Again, in September 1875 when a small-scale violent conflict broke out between several Japanese survey ships and the Korea government (江華島事件 *Kanghwado Incident*), Ōkubo skillfully adopted diplomatic strategies to prevent the conflict from being escalated. He carefully appointed the moderate Finance Vice-Minister Inoue Kaoru to accompany the hardline Director of the Hokkaidō Colonization Office Kuroda Kiyotaka to the treaty negotiation with Korea government under the consideration of “giving overall priority to peace.”<sup>51</sup>

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<sup>49</sup> Banno Junji. *Japan’s Modern History, 1857-1937: A New Political Narrative*. (New York: Routledge Press, 2010), 110.

<sup>50</sup> Edwin Pak-Wah Leung. “The Quasi-War in East Asia: Japan’s Expedition to Taiwan and the Ryukyu Controversy,” *Modern Asian Studies* 17, no. 2(1983): 258.

<sup>51</sup> Banno, *Japan’s Modern History*, 114.



In sum, during the first few decades after the Meiji Restoration, naval expansion was largely constrained by the government's fiscal shortage. Before early 1880s, naval expenditure was kept as low as 5.5 percent of the total state expenditure. No long-term expansion program was carried out, and oversea purchases were only sporadic. Except from domestic construction, the Meiji government only purchased a small ironclad (*Fuso*) and two coast defense warships from Britain (*Kongo*, *Hiei*) in 1875, which hardly made the Imperial Japanese Navy a strong force in comparison with Qing China's more advanced Beiyang Fleet before the mid-1880s.<sup>52</sup> Only after a series of fiscal reforms taking effects did Meiji Japan acquire the capacity that allows long-term investment in naval expansion.

### ***3.2 Fiscal centralization***

The government first reformed the decentralized fiscal operation. Prior to the abolishment of domains, local governments' finances were almost independent from the center's surveillance. The daimyos had considerable autonomy in making fiscal decisions within their territories. Specifically, they were allowed to decide their own tax rate and spending as long as they paid the required amount of revenues to the shogunate. Accordingly, the daimyos were also fiscally self-responsible, obligated to pay for the stipends of their subordinates and the provision of public goods such as building roads, castles and irrigation systems.<sup>53</sup>

After the abolishment of domains, to centralize the control of state revenue, the central government first enhanced the supervision of local governments' finances. In

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<sup>52</sup> Schencking, *Making Waves*, 41.

<sup>53</sup> 深谷 徳次郎, 『明治政府財政基盤の確立』(御茶の水書房, 1995 年), 頁 27。

1873, Inoue Kaoru introduced double-entry bookkeeping into government finance and required local governments to regularly submit their account books and budgets for the next year to the Ministry of Finance for inspection. To further enhance the control of resource allocation, the central government ordered private bankers to transfer majority of tax revenues from localities to a central Treasury. Initially, fifty traditional private bankers, such as Mitsui, Yasuda and Ono, were delegated to send the collected taxes to Tokyo by bills of exchange. Their local branches received the rice from peasants and sent bills to headquarters in Tokyo. Serving as the government's money transmitters, these bankers benefited from doing governmental business as it provided them with additional money with no need to pay interest for a brief period. Nonetheless, as these bankers often lent out government deposit for profits, they became unprepared when the government suddenly needed large amount of money. For example, when the government called back its deposits for Taiwan Expedition in 1874, two of the biggest banks, Ono and Shimada houses went bankrupt as they failed to raise enough money immediately. Having been aware of this potential risk, the central government now demanded that these banks provide collateral for the deposited governmental funds for security. To further enhance the control of resource allocation, in February 1876, the Finance Minister of the time Okuma Shingenobo ordered local governments to return any surplus to the Ministry for a centralized allocation.<sup>54</sup> By 1880, the central Treasury was receiving up to 85 percent of state revenue through the remittance of national banks and major private banks. In 1886, the Bank of Japan replaced private and national banks to serve as the sole agent for the Treasury and further facilitated the more rapid centralized collection of tax revenue.<sup>55</sup> Through these practices, majority of state revenues were

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<sup>54</sup> 深谷 徳次郎, 『明治政府財政基盤の確立』, 頁 44。

<sup>55</sup> 高橋 誠, 『明治財政史研究』(青木書房, 1964 年), 頁 78 。

now remitted to the center for centralized allocation, and thus ensured the central government's de facto control of state resource.

### ***3.3 Elastic tax revenue***

At the same time, Meiji Japan also actively sought to increase revenue from taxation. During the Tokugawa era, Japan was already a tax state which predominantly relied on land taxes and tariff. Initially, the new government attempted to increase revenues through raising tariff rate. On 23 December 1871, a delegation consisting of half of the highest-ranking officials left Japan with the main purpose of negotiating with Western powers for a resumption of sovereignty in deciding tariff rates. To their disappointment, these officials soon realized that it was unrealistic to establish tariff autonomy when Japan was a weak state with no bargain power.<sup>56</sup> Other than tariff, the government also experimented with various ways to generate revenue and prevent outflow of species, such as establishing state-owned enterprises in modern industries, and organizing direct exports to Western markets to generate trade surplus. Unfortunately, almost all of them failed as the enterprises were non-profitable and Japanese goods were not competitive enough in foreign markets.<sup>57</sup> As direct means to generate revenues failed, raising revenues from domestic taxes became the most plausible option.

As for domestic taxes, the abolishment of domains in 1871 changed the former division of taxation by creating a clearer division of national and local taxes: national

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<sup>56</sup> Ian Nish. *The Iwakura Mission to America and Europe: A New Assessment*. (Talyor & Francis e-Library, 1998), 33.

<sup>57</sup> Masaki Nakabayashi. "The Rise of a Japanese Fiscal state." In *The Rise of Fiscal States: A Global History 1500–1914*, ed. Bartolome Yun-Casalilla, Patrick K. O'Brien and Francisco Comin Comin, 378-409. (Cambridge: Cambridge University Press, 2012).

taxes belonged to the central government now included land taxes, customs, and indirect taxes on major consumer goods, such as alcohol, tobacco and soy sauce. Local taxes constituted a prefixed ratio of land taxes and some indirect taxes such as retail taxes were at the disposal of municipal and prefectural governments.<sup>58</sup> The government started with a reform of the land tax. Initially, following the Tokugawa tradition, land tax was paid by rice instead of species, and thus the revenue was highly unstable as harvests varied from year to year. Besides, tax was levied on villages as a whole rather than on individual plots, and then allocated by a consultative process within the village. A nationwide land tax reform was launched in July 1873 to curb those problems. There were three main changes it brought: first, land tax was to be paid in cash instead of kind. Second, the tax was now based on the value of land instead of the harvest, making the amount of revenue more stable. Third, regional variations of tax burden were eliminated. From July 1873 to the end of 1876, the government assessed and determined the monetary value of 85.44 million parcels of rice paddies and all other types of land, and issued 109.33 million certificates of land ownership. The tax burden of each parcel was to correspond to its real productivity as closely as possible. Through these efforts, the complex and inequitable Tokugawa land tax system was replaced by a more efficient and equitable one.<sup>59</sup>

Despite receiving much praise, the limitations of land tax became more evident when the government tried to raise more revenues from it. First, since the value of land was fixed after the assessment survey, it no longer increased as the economy grew. In

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<sup>58</sup> Osamu Saito. "The Economic History of the Restoration Period, 1853-1885," *Global COE Hi-Stat Discussion Paper Series* gd10-163, (Institute of Economic Research, Hitotsubashi University, 2011), 12.

<sup>59</sup> Bird, R. M. "Land Taxation and Economic Development: The Model of Meiji Japan," *Journal of Development Studies* 13, no. 2 (1977): 164.

consequence, revenue from land taxes became perversely responsive to inflation. Any increase in the price level would result in a decrease in the real values of government revenues. Therefore, when the price of rice rose during the years 1877-1881 and again in the 1890-1898 period, it greatly benefited the taxpayers at the cost of the government. In 1880 when the price of rice reached 10.49 yen per koku comparing to 5.01 yen in 1876, the central government was forced to consider reassessing the land value and reinstituting payments in rice to prevent suffering from de facto losses. However, neither of these changes was adopted in the end.<sup>60</sup> According to one estimation, the landowners' share of the proceeds from the land rose from 18 percent before 1868 to 56 percent in the inflationary period of 1878-87, while the state's share fell correspondingly from 50 percent to 11 percent. Godai Tomoatsu in the Ministry of Finance even attributed the trade deficit to peasants' growing wealth. In his words: "The peasants have attained prosperity and generate luxury in clothing and food, and very evidently they have sufficient wealth to spend competitively on imported goods...But this is quickly reflected in an imbalance between exports and imports."<sup>61</sup>

The second limitation lies in the severe social resistance to rising land tax rate. During the initial assessment period, officials frequently encountered resistance and even uprisings from landowners who protested the "unfairness" in value assessments. Tax revolts against the requirement of payment in cash and in an amount not correlated with harvest conditions also resulted in several immediate amendments to the 1873 legislation, which now permitted the peasants to pay up to one-third of their taxes in kind. In 1877, fearing both the Seinan War and the rising peasant uprisings

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<sup>60</sup> Nakabayashi, *The Rise of a Japanese Fiscal state*, 103.

<sup>61</sup> Banno, *Japan's Modern History*, 116.

in Mie prefecture and elsewhere, the government again lowered land tax rate from 3 to 2.5 percent. Later during the 1880s, a proposal of raising 25 percent tax rates was rejected out of the worries that the rising tax burden could further stimulate the peasants' involvement in the escalating Freedom and People's Right movement (自由民権運動 jiyū minken undō), which was considered as a political threat to the Meiji government.<sup>62</sup>

In consequence, the central government was unable to extract more revenues from land taxes and benefited from the growing agricultural productivities. Although the land tax remained the pillar of state revenue until the 1890s, its relative inelasticity forbids it from being further increased and thus gradually lost its importance. As the land tax gradually decreased its share, indirect taxes such as the tax on alcohol and tobacco emerged the major sources of state revenue. Regarding the indirect taxes levied on domestic consumer goods, since the very beginning, financial officials in the Meiji government considered the commercial sectors important sources of revenue. In the Guidance for the Administration of Cities and Prefectures issued by the central government in March 1869, it is clearly stated that “as commerce prospers, commercial taxes should be gradually collected, and we can expect a great success when the methods of taxing commercial sectors are ultimately formulated.”<sup>63</sup>

Taking indirect tax levied on alcohol as an example, effective extraction was achieved through reforming and centralizing the assessment and collection. During the Tokugawa period, alcohol taxes used to be collected based on the average market price of products. However, since the evaluation of the fluctuating market value of

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<sup>62</sup> Nobutaka Ike. “Taxation and Landownership in the Westernization of Japan,” *The Journal of Economic History* 7, no. 2 (1947): 164.

<sup>63</sup> 深谷 徳次郎, 『明治政府財政基盤の確立』, 頁 66。

alcohol in various regions was a formidable task, officials usually did not conduct careful assessment themselves but relied on the self-reports of local merchants, who tended to underreport the true value so as to pay less taxes. To eliminate the resulted under taxation, in 1877, the Ministry of Finance sent out officials to supervise the collection of alcohol taxes and ordered brewers to regularly submit their account books for auditing. Initially, the task of assessment was entrusted to local magistrates, who were not incentivized to finish their duties of assessing the quantity of alcohol production wholeheartedly. As the problem of underassessment became evident in a field investigation conducted by the Ministry of Finance, since 1878 the Ministry replaced local magistrates with trained bureaucrats directly dispatched from the Bureau of Taxation. This time, these bureaucrats assessed and collected taxes according to a carefully-designed procedure. They not only measured the volume of alcohol containers but also checked all relevant account records. Moreover, since these bureaucrats were personnel of the central government, they directly reported the monthly output of brewing houses to the Bureau of Taxation rather than local governments. In doing so, by 1880, the central government eliminated the involvement of local administrations in the assessment and collection of alcohol taxes and thus firmly controlled this important source of revenue.<sup>64</sup>

Meanwhile, the central government also tried to expand the tax basis by lifting the Tokugawa ban on alcohol brewing and issued more licenses. As a result, the number of brewing houses increased from 15 in 1866 to 253 in 1875, producing around 5 million koku of alcohol per year, and alcohol tax revenue rose sharply from 1.68 million yen in 1874 to 6.46 million yen in 1879.<sup>65</sup> Nonetheless, in September 1880 when the Meiji government raised the tax rate on alcohol production from 1 yen to 2

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<sup>64</sup> 藤原 隆男,『近代日本酒造業史』(ミネルヴァ書房, 1999年), 頁 74。

<sup>65</sup> 1 Koku is equivalent to around 180 Litre

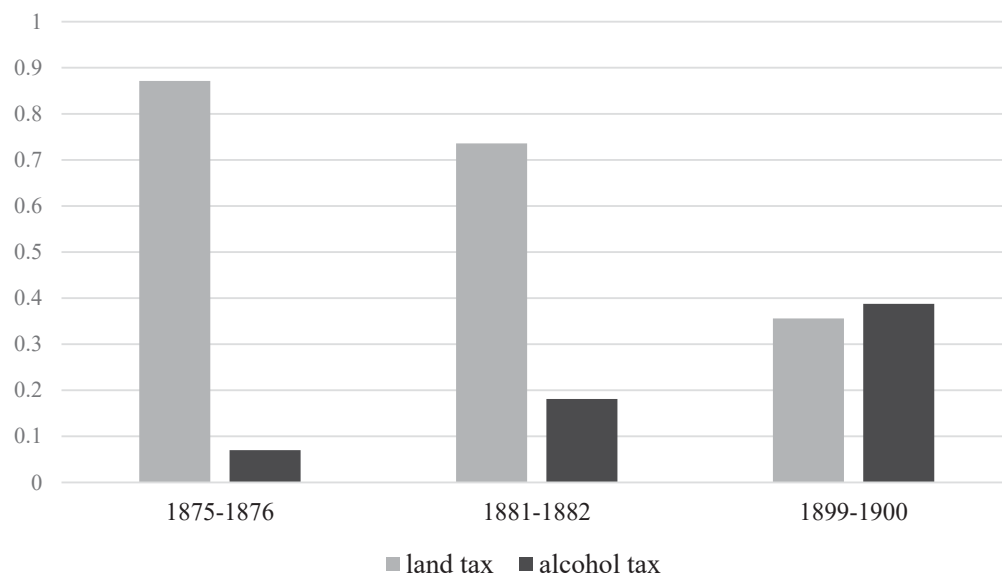
yen per koku and the license fee from 5 yen to 30 yen, many small brewers who survived on narrow profits could not bear tax burdens, and consequently organized petitions to protest. However, officials in the Ministry of Finance, instead of responding by reducing the tax rate, considered this as an opportunity to eliminate the relatively uncompetitive small producers from the market. The rising tax rates made many small-scale producers nonprofitable and were forced to shut down, but big producers took the chance to expand their business, and receipts from alcohol taxes, instead of being reduced, rose sharply from 5.51 million yen in 1879 to 10.64 million yen in 1881. In sum, alcohol taxes served as a reliable supplement when revenue from land taxes became inelastic. Moving forward to the end of nineteenth century, indirect taxes levied on alcohol even replaced land taxes to become the primary source of state revenues.<sup>66</sup>

**Table 4.** Percentage of Land and Alcohol Tax Revenue in Total State Revenue

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<sup>66</sup> 深谷 徳次郎，『明治政府財政基盤の確立』，頁 90。





Source: calculated from Katsuma Ohsato, *Hundred-year statistics of the Japanese economy*, Tokyo: Statistics Department, The Bank of Japan, 1966, pp. 136.

### ***3.4 Borrowing capacity***

Other than financing naval expansion through regular revenues from taxation, the Meiji government also managed to raise a vast sum of resources from the domestic markets by issuing long-term state bonds at low interest rate. In total, revenues from the selling of four voluntary naval bonds amounting to 17 million yen, providing timely support for naval expansion and urgent wartime mobilization when tax revenues were insufficient during deflation. The punctual payment of interests funded by increasing tax revenues and the establishment of a central Bank of Japan with monopolized note issuance are critical to Meiji Japan's successful leverage of financial resources from the domestic markets.

Meiji Japan started to experiment with long-term state bonds from the very beginning due to urgent fiscal pressure. The 1871 abolition of domains and the establishment of prefectures made the Meiji government suddenly bear all hereditary stipends of domain lords and samurais. As the Treasury did not have enough funds, the government converted these stipends into government compensation bonds to be redeemed within thirty years. Since 1875, tax revenues were appropriated to pay interests annually. As the Meiji government gradually improved its taxing capacity by reliably collecting indirect revenues, it demonstrated its ability to use the revenue to make punctual interest payments to its bonds over the next two decades. The stocks of redeemable state bonds became a safe investment for small investors, such as ex-samurais and daimyos.<sup>67</sup>

The establishment of the Bank of Japan also directly and indirectly improved state creditworthiness and facilitated resource mobilization. The Bank of Japan was established in 1882 with the primary aim of issuing convertible paper notes to counter against the severe inflation resulting from excessive printing during the Seinan War. To guarantee the convertibility of the newly-issued banknotes, the government got rid of private banks in fiscal operation and put entire state tax revenues and funds under the management of the Bank of Japan. The huge amount of regular state tax revenue enhanced the creditability of the long-term bonds issued by the Bank for the government.<sup>68</sup> Besides, as a governmental institution, the Bank of Japan also had the obligation to directly serve as the government's creditors in time of urgency. Specifically, the Bank was placed under the control of the government,

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<sup>67</sup> Toshiki Tomita. "Government Bonds in the Meiji Restoration Period," NRI Papers, no. 87 (2005): 16.

<sup>68</sup> Norio Tamaki. *Japanese Banking, A History, 1859-1959*. (Cambridge: Cambridge University Press, 1995), 81.

which not only directly appointed the Bank's president and directors but also directed the general policy of the Bank. When the war approached in 1894, the government promulgated an act that obligated the Bank to supply the government with funds on a short-term basis which would enable the latter to manage itself until it received proceeds of newly issued national debts. This allowed the government to borrow rapidly and mobilize resources by using the bank's supremacy of currency issuance.<sup>69</sup>

Finally, the government also skillfully adopted an innovative debt management method to lower the interest rate by taking advantages of the deflationary environment to convert multiple old debts into a new bond. The successful conversion of paper notes changed the whole economic aspect, and the rate of interest began to fall. The market rate, which oscillated between twelve and eight percent before, descended to seven percent. At the same time, the price of bonds gradually rose; Hence, the time became ripe for the conversion of the debt. In September 1886, Matsukata announced the Adjustment Bond (整理公債 *seiri kosai*) Ordinance to reduce the amount of interests by converting high interest rate government bonds by reflecting the trend toward declining market interest rates. The adjustment bonds were issued in a format resembling the consolidated bonds of Britain. It was decided to gradually issue adjustment bonds with a total limit of 175 million yen to convert the outstanding government bonds with an annual interest rate of 6 percent or more. The issue conditions were 5 percent interest bearing and redemption in 50 years after a deferment of five years. The deflationary environment also incentivized the holders of old bonds to accept interest reduction instead of choosing cash payment. In this way, about 74 percent of outstanding government

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<sup>69</sup> Juichi Soyeda. *A History of Banking in Japan*. (London: Routledge Press, 2013), 87.

bonds worth 230 million yen were converted at the end of 1886 into 5 percent interest bearing government bonds over a period of ten years, leading to an accumulated interest payment reduction of 2.93 million yen. The government's fiscal burden has thus been greatly relieved.<sup>70</sup>

### ***3.4 Impacts on naval buildup***

The above reforms enabled the Japanese government to significantly increase its tax revenue, centralize the control of state resource, and rapidly mobilize more resource through borrowing domestically. With reforms in land and indirect tax administrations, the annual tax revenue in 1882 reached 67.7 million yen, which is twenty-three times of the year 1868. Of the total state revenues, over 80 percent was remitted to the center by the national and private banks for centralized management by the Ministry of Finance. Accordingly, the state became more capable to commit more resources to naval buildup.

Before 1880s, the Imperial Japanese Navy experienced continuous failures in arguing for expansion budgets. Due to the defeat of the revolutionary forces at Seinan war and the resulting enormous fiscal burden, both the navy and army were in no position of asking for more budgets. While statesmen in support of industrialization were at the height of influence, voice from the 'strong military' camp had disappeared for a while. The subordinary position of the military was demonstrated in an extreme form in the following extract from a statement of budgetary demands by the Ministry of Army in 1878, in which the Army Minister acknowledged that "in the case of

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<sup>70</sup> Olive Checkland, *Britain's Encounter with Meiji Japan, 1868-1912*. (London: The Macmillan Press, 1989), 34.

expenditure on the army, it is like throwing money into water and fire, since hardly any of this money is repaid even in the long term. Talking just in financial terms, we belong to a useless behemoth, and there are even people who argue that the armed forces ought to be disbanded.” Although this quote was an introductory section and it later followed a call for military expansion, it is very unusual to read such a humble budgetary demand statement from the military. At the end of 1877, when the struggles with China and Korea had been settled and Saigo’s military forces had been suppressed, investment and industrial promotion became the issue of utmost priority in Japan.<sup>71</sup>

**Table 5.** Percentage of Naval Expenditure in Total State Expenditure, 1876-1895



Source: calculated from Ono Giichi. *War and Armament Expenditures of Japan*. New York: Oxford University Press, 1922, pp 56.

Things began to change when the Imo incident (壬午事變) triggered a security alarm

<sup>71</sup> Banno, *Japan's Modern History*, 78.

in 1882. The incident was a violent uprising by soldiers and commoners in Seoul who were dissatisfied with a series of modernization projects carried out by Emperor Gojong. In part, it was also the opposition to the Emperor's support for Japanese military advisors, who were invited to train the Korea army and took up important positions. The rioters killed many government officials and occupied the Changdeok Palace. They also turned on the members of the Japanese legation in the city, who barely escaped with the help of a British ship. The news of uprising immediately led to a rising sense of crisis among the Japanese leadership. In December 1882, the court noble Iwakura Tomomi, under the request of the Navy Minister Kawamura Sumiyoshi, submitted a proposal to Emperor Meiji to advocate for urgent naval expansion in preparation for the potential conflict.

Nonetheless, Japan by that time was undergoing an austerity finance to control inflation caused by excessive issue of paper notes incurred by the Seinan War. To recover the value of paper notes, the government was determined to stop the issuance of inconvertible paper notes and keep the state expenditure at a fixed level over three years to generate fiscal surplus necessary to redeem paper notes. Initially, the Meiji statesmen found the austerity program and request for naval expansion difficult to reconcile with each other. Yet, with confidence of the potential in extracting more revenues from indirect taxes, the Ministry of Finance launched a plan to raise 7.5 million yen annually by increasing the taxes on alcohol and tobacco. The tax rate on alcohol was raised from 2 yen per koku to 4 yen per koku, and inspection on unlicensed brewing was further strengthened to eliminate tax evasion. As the Finance Minister Matsukata Masayoshi explained in his policy statement, he was confident that there was still room for higher tax rates as both the total output and retail prices of alcohol had increased in 1881 regardless of heavier tax burden. In this way,

the first long-term expansion program was able to be implemented through raising indirect tax rates without further issuing more inconvertible notes.<sup>72</sup> The revenues from increasing taxes was to be put in a Bureau of Armaments (軍備部) separated from ordinary state expenditures. By March 1883, the navy secured the 6.5 million yen required annually to support an eight-year expansion program, which was the largest the navy had ever secured considering that the previous annual naval budgets were just above 3 million yen. The program allowed the navy to acquire thirty-two warships, of which two protected cruisers were purchased from Britain. Sporadic expansion was now replaced by continuous, planned expansion, and the navy tripled in size.

In addition, further expansion of the 1882 program was funded through the issuance of long-term state bonds. Two years after the Imo incident, new requests for naval expansion emerged due to outbreak of the Gapsin Incident (甲申事變). In 1884, the Japanese consulate and its guard forces in Seoul, which had been assisting the coup d'état by Kim Ok Kyun, were attacked by Chinese force led by Yuan Shikai and routed, being forced to return to Japan. Since this was a serious loss of face for Japan, the demands of the Navy and Army for military expansion against China reached a new level. Except this, the original plan of naval expansion supported by tax increase was not going on smoothly. As the retrenchment policy led to deflation and declined purchasing power, the total output of alcohol fell 35 percent in 1883, and revenues from indirect taxes dropped from 16.3 million in 1882 to 13.5 million in 1883 in spite of the increased tax rate. Therefore, revenues from raising alcohol and tobacco taxes turned out below expectation and the Bureau of Armaments went completely bankrupted. Consequently, Matsukata was forced to reduce the scale of naval

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<sup>72</sup> 高橋 秀直,『日清戦争への道』(創元社, 1995 年), 頁 90 。

expansion with actual expenditure cut by 13 percent and 22 percent from the original plan in 1883 and 1884 respectively.<sup>73</sup>

To carry on the naval buildup without disrupting the redemption of inconvertible paper notes, Matsukata first appealed to issue short-term bonds issued by the Ministry of Finance in 1886. With the promulgation of Naval Public Bond Instrument Ordinance in June 1886, a total value of 17-million-yen naval bonds were issued over three years. The issue conditions were: 5-percent interest bearing, redemption for 30 years from the year following a deferment of five years, an offer price of 100 percent of face value, and a price-competitive auction. As severe deflation made government bonds a safe and attractive option to investors, the subscription for the first issue exceeded three times the initial amount of 5 million yen. In this way, the navy expenditure used to be funded solely on taxation was now greatly increased. With the help of state bonds, enough funds were provided for the purchase of an additional twenty-eight torpedo boats, one first-class ironclad, six first-class and second-class dispatch boats, eight first-class and second-class gunboats, and a number of support vessels, which altogether totaled fifty-four vessels with a combined displacement of 66,300 tons. Relationship between retrenchment policy and request for naval expansion, which was confrontational at the time of the Imo Incident of 1882, now became manageable.<sup>74</sup>

A structural change in politics brought about the promulgation of the Meiji Constitution in 1889, under which a parliamentary cabinet system was introduced. Initially, the promulgation of parliament caused difficulty in increasing government

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<sup>73</sup> 室山 義正,『近代日本の軍事と財政』(東京大学出版会,1984年),頁72。

<sup>74</sup> 高橋 秀直,『松方財政期の軍備拡張問題』,社会経済史学 56(1),1990,頁23。



revenues and expenditures. In the newly established Diet, representatives from opposition parties in the lower house demanded land tax reduction, increased expenditure on local welfare and infrastructure, and reduction on military spending. Even though Article 67 and 37 in the constitution were designed to protect the government, the government could no longer raise tax rate and increase state expenditure at its will.<sup>75</sup> Despite the declined state autonomy, the already-established fiscal institutions were still able to provide sufficient resource for continuous naval expansion. The raise of indirect taxes went on relatively smoothly in comparison with land taxes, of which the increase was difficult due to the oppositions from landowners in the lower houses. Between the year 1890 and 1893, with the additional 2.2 million yen donated under the request of Emperor Meiji, the navy was able to purchase three battleships from Argentina at a cost of just over 9 million ten and one battleship from Chile at a cost of roughly 3 million yen.

The improved resource mobilization capacity also benefited Japan enormously during wartime. The outbreak of the first Sino-Japanese War in 1894 forced upon the country a huge expenditure of about 200 million yen, which is roughly 2.5 times the average annual budgetary expenditure in the five years preceding the war. In order to quickly mobilize resources to finance the war, a new War Loan was raised to the amount of 150 million at five percent in 1894, and to this 100 million more were added in 1895. The subscription exceeded by the enormous sum of more than 40 million yen. If the war continues, the Meiji government can still issue another 120 million yen. Eventually, approximately 60 percent of war expenditures were financed by state bonds and temporary borrowing from the Bank of Japan, which was later

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<sup>75</sup> Banno Junji. *The Establishment of the Japanese Constitutional System*. (London and New York: Routledge Press, 1992), 56.

repaid from the Chinese indemnity.<sup>76</sup> The high levels of expenditure that accompanied the war were only affordable because Meiji Japan was able to raise vast sums of fiscal resources.

## ***Chapter 4. Qing China***

In this chapter, I argue that Qing China's relative weak naval capability was mainly caused by its fiscal decentralization, stagnated taxing capacity and limited borrowing capacity. Despite the significant rise in total state revenue after the Taiping Rebellion,

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<sup>76</sup> Ono Giichi. *War and Armament Expenditures of Japan*. (New York: Oxford University Press, 1922), 45.

Qing China experienced a drastic decline of resource control. The central government could neither control local governments' newly-acquired resources nor effectively allocate resources for its policy agenda. However, instead of recentralizing resource control through fiscal reforms, the central government maintained the status quo and used its political authority to directly transfer fiscal burdens to local governments. Yet as the taxing and borrowing capacity could not catch up with the state's growing spending demands, naval buildup experienced continuous funding shortages and was thus significantly delayed.

#### ***4.1 Historical Background: early naval defense and state finance***

The early Qing naval history was characterized by a prolonged ignorance of naval defense. In the early days of the Qing dynasty, the government's warships and crews were directly inherited from the Ming dynasty. Defense was mostly constructed along the coast of Fujian province to counter against Zheng Chenggong, the last official in Ming dynasty who battled with Qing. With the successful capture of Taiwan, the need of seaborne defense declined, and the government turned its energy to fend off threats to China's northern border. As a result, the Southeast maritime frontier was exposed to pirates and the British merchants, who continued to harass Guangdong during the Jiaqing and Daoguang periods.<sup>77</sup>

Public finance had great influence on the maritime defensive strategies the Qing officials adopted to counter with pirates in the South China Sea. Instead of contrasting a centralized national naval force, the Qing central government delegated

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<sup>77</sup> 王宏斌,《清代前期海防—思想與制度》(北京:社會科學文獻出版社,2002年),頁55。

the task of naval defense to coastal provinces. Since the construction of provincial naval forces were considered as local governments' expenditures, provincial-governors tended not to strengthen their standing naval forces but defend the coastline by cutting off the supplements from inland, for it was deemed as a less costly yet effective strategy to starve the enemies at sea.<sup>78</sup> In this way, Qing China was gradually left behind by the European states, which had actively enhanced their maritime aggressiveness with advanced machinery and technology. Until the dawn of the first Opium War, the Chinese navy remained a police force operating to exterminate pirates and illegal trading activities, while being technically incapable of sailing off to the high sea. The lack of a regular, professional training scheme for the navy also rendered its combat capacity insufficient. Not surprisingly, with fewer than 5,000 troops and 20 warships, the British were able to win the war and rewrite trade laws that were demonstrably unfair to the Chinese.<sup>79</sup>

While the defeat in the Opium War did not immediately lead to a rise of awareness in naval defense, it was the Taiping Rebellion that gave birth to the first batch of Chinese steam navy.<sup>80</sup> To combat Taiping fleets equipped with western firepower, the Qing government began to acquire western ships, cannons, and set up shipping building factories in southern China. As many governors-general considered domestic construction the most effective way to catch up with the West, shipbuilding factories prospered and started to domestically constructed steam warships. The Jiangnan Arsenal (江南製造局) was a representative product of that time. Started from 1868, eleven ships were built in the Jiangnan Arsenal within eight years, of

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<sup>78</sup> 陳鈺祥，〈清代中葉廣東海盜之研究（1810-1885）〉，《成大歷史學報》，總第 34 號（2008 年 6 月），頁 98。

<sup>79</sup> 王宏斌，《晚清海防思想與制度研究》（北京：商務印書館，2005 年），頁 24。

<sup>80</sup> 陳祖恩，〈湘軍水師與近代海軍〉，《史學月刊》，1984 年第 3 期，頁 56-61。

which ten were provided with wooden and iron hulls. All parts of each ship, including the engine, were built at the Arsenal. Another example was the Fuzhou Naval Yard (福州船政局), which was established to build a modern Chinese flotilla. In total, sixteen ships were constructed with 80 to 250 horsepower engines. Ten transporting ships with 100 horsepower engines, and one corvette as a showpiece with a 250-horsepower engine, were realized later during 1869-75.

Overall, however, those domestically-constructed ships still failed to catch up with the technological advancement in Europe, especially when the compound engine was invented and easily superseded the outmoded single or double screw engines installed in Chinese vessels.<sup>81</sup> Therefore, in 1874 when Japan's Taiwan Expedition raised a security alarm to the Qing court, officials considered the strategy of direct foreign purchase more efficient to acquire a strong navy. In 1875, an imperial edict was issued to announce that the state will "mobilize resource from the entire country to support naval buildup". It was later decided to build up two national fleets, the Beiyang and Nanyang Fleet, to defend the north and south coasts along with the provincial naval forces. Unlike the traditional provincial navies, the buildup of the two new fleets were considered as the central government's responsibility.<sup>82</sup>

Meanwhile, significant changes also took place in state finance. Previously, Qing China was already a tax state that derived majority of its revenue from land taxes.<sup>83</sup> Yet, the tax system was stable but inelastic, especially after land tax being frozen by

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<sup>81</sup> Elman, Benjamin. A. Naval Warfare and the Refraction of China's Self-Strengthening Reforms into Scientific and Technological Failure, 1865-1895. *Modern Asian Studies* 38, no. 2 (2003): 283-326. Chung-yam PO. "Conceptualizing the Blue Frontier: The Great Qing and the Maritime World in the Long Eighteenth Century." PhD diss., Universität Heidelberg, 2013.

<sup>82</sup> 張俠，《清末海軍史料》，〈著李鴻章沈葆楨分別督辦南北洋海防論〉，頁 71。

<sup>83</sup> Wang Yeh-chien. *Land Taxation in Imperial China, 1750-1911*. Cambridge: Harvard University Press, 1973. In 1753, the land and grain taxes constituted 73.4% of total tax revenue.

the Kangxi Emperor. As the tax system could not well adapt to changes, the government often resorted to donations from big merchants or selling of official ranks to meet urgent spending needs of war and disaster reliefs.<sup>84</sup> Therefore, when the Taiping Rebellion broke out in the 1850s, the government was totally ill-prepared to handle the unprecedented amount of fiscal demands. To make matters worse, the Taiping's control of the lower Yangzi region and war damage to many of the richest agricultural areas made more extractions from land tax impossible. Facing with the desperate need for revenues, the center permitted local governments to collect a new tax, the lijin duties levied on domestic consumption, as an emergent fiscal measure. Along with the maritime customs duties centrally collected by a Western administration (*the Imperial Maritime Customs*), the two soon became most important revenues that helped Qing China muddle through crises. When the Rebellion ended, significant transformations had taken place in both the amount and structure of state revenue: Qing China's annual tax revenue has doubled from about 40 million tael of silver in the 1840s to some 80 million tael in the 1880s, of which the majority came from the lijin duties and maritime customs.<sup>85</sup>

Despite the significant growth in state revenue, the subsequent resource mobilization for naval buildup was far from smooth: while the central government allocated 4 million tael annually as ordinary naval funds, the amount that the navy received never exceeded 3 million tael every year, and the expansion project was even forced to stop by the end of the 1880s.<sup>86</sup> What was the reason for Qing China's failure in resource mobilization? Classic accounts hold that it was the "regionalism" risen

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<sup>84</sup> 許大齡，《清代捐納制度》（北京：北京大學出版社，1950年），頁60。

<sup>85</sup> 劉嶽雲，《光緒會計表》（上海：教育出版社，1901年），1：1-5下。

<sup>86</sup> 陳先松，〈北洋海防經費收數考述〉，頁22。

during the Rebellion that seriously weakened the central government's military as well as financial power relative to the provincial-governors.<sup>87</sup> To thoroughly evaluate this argument, we first need to understand how the Qing fiscal system functioned.

## **4.2 Fiscal Decentralization**

Regardless of the significant increase in total state revenue, Qing China's fiscal system remained unchanged. The system looks extremely decentralized from surface. On the one hand, the central government did not have its own tax collection administrations. Taxes were almost entirely collected by local governments and shared upward with the center. On the other hand, Qing China did not have a central body of receipt to receive and centrally allocate majority of state revenue. Instead, the Central Treasury (戶部銀庫) only received 18 to 28 percent of the total state revenue remitted from local governments as *jingxiang* (京餉), while the rest were stored at local treasuries (藩庫). Even for the customs duties collected by the Imperial Maritime Customs, the center received only 40 percent into its own coffers.<sup>88</sup>

In spite of these decentralized features, the fiscal system was highly centralized in view of the strict rules set up by the center. First, local governments did not have budgetary autonomy. They were not allowed to set up their own tax rate and

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<sup>87</sup> 彭雨新，〈清末中央與各省財政關係〉，《社會科學雜誌》，1947年第9期，頁86-89；何烈，〈清咸、同時期的財政〉（臺北：國立編譯館《中華從書》編審委員會，1981年），頁385-393；周育民，〈晚清財政與社會變遷〉（上海：上海人民出版社，2000年），頁225-228。Franz H. Michael, *Regionalism in Nineteenth Century China*. Seattle: University of Washington Press, 1964; Stanley Spector, *Li Hung-chang and the Huai Army: A Study in Nineteenth-century Chinese Regionalism*. (Seattle: University of Washington Press, 1964), 90.

<sup>88</sup> 彭澤益，〈十九世紀後半期的中國財政和經濟〉（北京：中國人民大學出版社，2010年），頁27。

spending quota without the center's permission. Second, that some 70 percent of state revenue retained in local treasuries were not to be freely disposed by local governments. Instead, they still belonged to the center and were subject to the Board of Revenue's allocation (存儲候撥). Even though the Board did not directly allocate revenues from an aggregated account in central treasury, it was entitled to issue assignment orders (指撥) to local governments, requiring them to transfer these reserves to destinations of demands, such as inter-provincial transfers from "rich" to "poor" provinces and departments that were categorized as *xiexiang* (協餉). Through these rules, the Board of Revenue was able to centrally allocate state resources from a distance.<sup>89</sup>

To effectively control state resources, the Board of Revenue needed not only political authority but also the effective supervision over local governments' fiscal affairs. The *zouxiao* (奏銷) system that resembles an annual central auditing system in modern sense was created to provide the necessary information for supervision. Specifically, under the *zouxiao* system, local governments were required to submit annual account reports of revenues and expenditures to the Board. These reports were then assigned to a department of the Board for auditing, and then the expenditures were checked to ascertain whether they had been made in accordance with the specific regulations of the Board.<sup>90</sup> With the information provided in annual account reports, the Board could have a solid grasp of local governments' revenues, expenditures, and reserves at local treasuries, which is essential for the Board to make effective assignment orders that required it to match specific sources of revenues with items of expenditure across the entire country.

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<sup>89</sup> 彭雨新，〈清末中央與各省財政關係〉，頁 35。

<sup>90</sup> 彭澤益，〈清代財政管理體制與收支結構〉，《中國社會科學院研究生院學報》，1990 年第 2 期，頁 52。



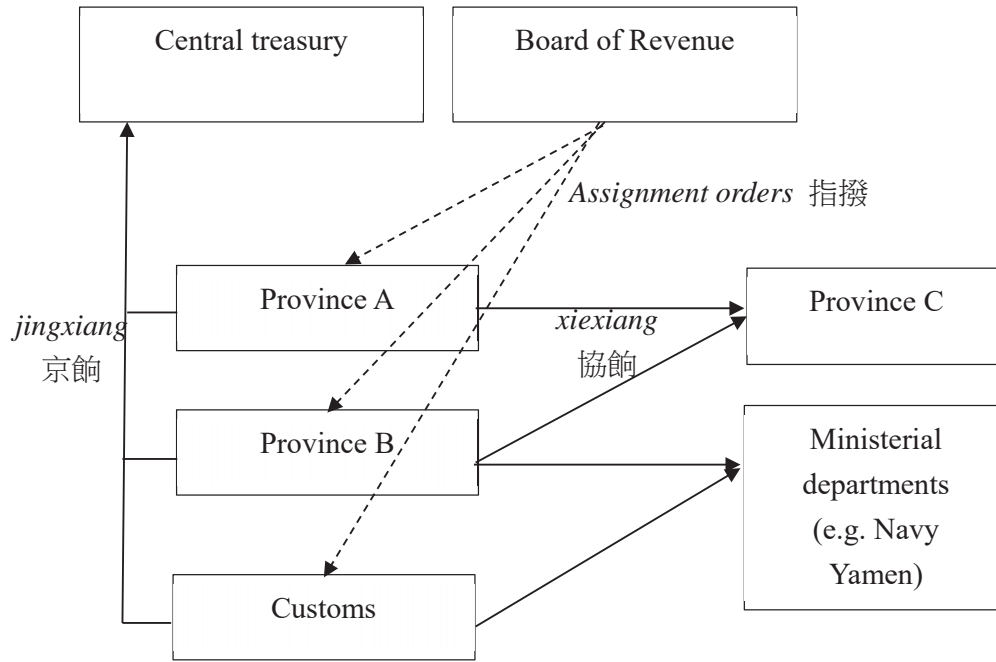
To ensure the accuracy of these account books, supervisors (布政使) were dispatched from the Board of Revenue to supervise provincial-governors (總督) in the making of account books and handling local fiscal affairs. Provincial-governors could not simply report expenditures at the end of the year. Instead, only after approval was given by the Board could an official disburse funds and declare expenditure in his annual accounts. Neither could they use the reserves without central sanction. If one failed to request permission in advance, one was acting contrary to the regulations and could be impeached. As for resource allocation, if a province failed to remit the assigned amount of revenues to destinations of demand, the Board or the governor of the affected province could memorialize to the emperor, and provincial-governors who had continuous failures to remit the required funds was grounded to impeachment. Through these rules, the Board of Revenue achieved centralized control of state resource even though the operations of resource collection and allocation were decentralized. In the central government's view, this arrangement was avoided the formidable transportation of bulky species from localities to the center.<sup>91</sup>

Then, how could we explain Qing China's failed resource mobilization for naval buildup? Why did the navy fail to receive the assigned amount of ordinary funds from local governments? I argue that it was because the dysfunction of the *zouxiao* system has resulted in weakened supervision of the central government over its local agents, and thus handicapped the center's ability to effectively allocate resources that were stored in local treasuries and to control the newly-acquired local revenues. The decline of *zouxiao* system was caused by both historical problems in institutional design and the disruption of the Taiping Rebellion.

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<sup>91</sup> 彭澤益，〈十九世紀後半期的中國財政和經濟〉，頁 57。

**Figure 1.** Decentralized Resource Allocation of Qing China



First, local officials' removal of reserves at local treasuries, despite being illegal, had started since the early Qing dynasty. Rather than corruption and embezzlement, the fundamental cause was Qing China's rigid quota-based budgetary system failed to provide enough funds for local expenses. As stated above, the budgeting of local administrations was controlled by the center in pursuit of centralization. However, when making provincial budget, the central government adopted a quota-based system that almost fixed both the tax collection and spending of provinces. In practice, this system seriously underestimated the costs of maintaining local administrations, and thus failed to accommodate the actual spending needs of provinces. Nothing was provided for the local authority confronted with pressing shortages in the course of day-to-day administration, making fiscal shortage part of the life of every provincial official in Qing China.

To make it worse, while local expenses increased as a result of the doubled population in the eighteenth century, the statutory quotas remained almost unchanged. To what extent were the statutory quota of expenses insufficient to meet the actual expenditure needs of local government? According to an estimation of two prefectures in late 1880s, the funds formally made available for local administration accounted for less than one sixth of the actual outlay in one case and less than one tenth in another.<sup>92</sup> Under such circumstance, it is not surprising that local officials were often forced to resort to “informal financing” to cover administrative costs. Except from seeking more revenues from land tax surcharges and extra fees, one of the methods they often used was temporary removal of reserves stored in local treasuries to balance deficits.<sup>93</sup> While some may be made up later, some would never fill the vacancy until being found out. Gradually, the accumulated deficits in treasuries made the number appeared in account books lost in touch with reality.

Meanwhile, studies suggest that the institutions aiming to prevent officials' misappropriations failed to curb the problem. To prevent officials from removing the reserve funds, the central government made various monitoring policies, of which the most important were the annual audit, regular audit in official term rotation, and extraordinary nationwide audit.<sup>94</sup> The regular audit in officials' term rotation was supposed to be an effective way to monitor the officials. As the Qing court regulated, “if the successor discovered silver deficits, he should report to the upper level officials and related department and impeach his predecessor.” However, it turned

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<sup>92</sup> Wang, *Land Taxation in Imperial China, 1750-1911*, 49.

<sup>93</sup> Madeleine Zelin. *The Magistrate's Tael: Rationalizing Fiscal Reform in Eighteenth-century Ch'ing China*. (Berkeley: University of California Press, 1984), 33.

<sup>94</sup> 賈允河、李瑛，〈清朝吏治與錢糧虧空〉，《河北師範大學學報》，第22卷第2期（1998年4月），頁113-118。

out that the audit in term rotation was rather useless. In the actual practice, even if the successors discovered the deficits, his superior was also inclined to hide the facts, as the problems of removing and refilling reserved funds were so widespread that strict enforcement of rules became impractical. Consequently, monitoring policies largely failed to discover the treasury deficits.<sup>95</sup>

Despite that this problem has been long existed, for most part the fiscal system seemed to have functioned reasonably well when state expenditure was kept at a low level. However, Taiping Rebellion occurred and broke the prolonged fiscal balance. During the one and a half decades from 1850 to 1864, the normal running of *zouxiao* system was severely disrupted. On the one hand, reserves at local treasuries were frequently removed to meet urgent spending needs of military campaigns without informing the Board of Revenue in advance. As removals were so frequent, it became impossible for the Board to keep track with each flow and be updated with the latest fiscal situation in localities. On the other hand, as the center now gave local governments the autonomy to mobilize resources to cover military expenses (就地籌餉), the newly-acquired *lijin* duties, as well as large sum of urgent extraordinary expenditures were not included in the account books sent to the Board.<sup>96</sup> Lastly, the remittance of assignment orders, including both *jingxiang* and *xiexiang*, became severely disrupted and frequently delayed.

When the rebellion ended, the central government sought to reverse the trend of decentralization by launching nationwide programs to restore the normal running of

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<sup>95</sup> 何漢威，〈清季中央與各省財政關係的反思〉，《中央研究院歷史研究所集刊》第 71 本第 3 分 (2001 年 9 月)，頁 611。

<sup>96</sup> 王海明，〈晚清奏銷制度瓦解淺析〉(吉林大學碩士論文，2004 年)，頁 88。

the *zouxiao* system and to overhaul the messy wartime finance. Starting from November 1875, the central government first restored the normal running of the *zouxiao* system. In addition, it ordered provincial-governors to include *lijin* duties in their submitted account books, regularly report the amounts collected, the number and location of each *lijin* collection station, and the names of collecting officials. By 1874, most local governments sent the required accounts to the Board of Revenue, twice a year from provinces in the economic core areas and once a year from those in remote areas. In this way, *lijin* revenue was formally incorporated in the *zouxiao* system as state revenue just like land taxes and thus were also subject to the Board's allocation. Second, the center also ordered provincial-governors to overhaul the messy accounts accumulated during the Rebellion and conducted surveys of deficits at local treasuries. In the year after, the Boards once again reminded provincial-governors to overhaul the deficits at sub-provincial treasuries.

Nonetheless, the recentralizing outcome was relatively disappointing. First, as the amount of *lijin* revenues was subject to the self-reports of provincial-governors, they were likely to prevent the Board from having access to the real income. Second, in regard of the Board of Revenue's repeated orders of overhauling deficits, until 1882 there were only few responses except from Jiangxi province, where governor Zhang Zhidong carried out corresponding reform. Even though provincial-governors claimed that they had conducted due surveys, the offending officials they reported were either passed away or already impeached, and the amount of misappropriations retrievable were little. For instance, although the Guangdong Treasury Manager Gang Yi submitted 785 misappropriation cases, only 2,100 tael could be retrieved because most of the officials involved were no longer in office. In general, local governments, though could not ignore the center's order, responded to

recentralization halfheartedly.<sup>97</sup>

An evident consequence of these changes was the declined effectiveness of the Board of Revenue's resource allocation. Since the disruption of wartime auditing and failed recentralization made information in account books losing in touch with reality to an unprecedented degree, the Board's nationwide resource allocation that relied on accurate information of local finances became less effective. Frequently, the Board of Revenue made assignment orders out of inadequate or no reserves. For instance, in the case of Jiangsu naval funds, when in 1884 the Board of Revenue assigned 180,000 tael of salt taxes from the Lianghuai Salt Commission owed to the center as fund for naval defense in Jiangsu, the Jiangsu government eventually found out that there was no real revenue under this item. In summary, the decentralized resource allocation was extremely difficult to effectively operate when spending demands reached a new level during the post-Rebellion period.<sup>98</sup>

### ***4.3 Stagnated tax revenue***

Rather than recentralize resource control through enhancing supervision or fundamentally reforming the decentralized fiscal operation, the central government maintained the status quo while adopted a make-up strategy of "forced assignment" (硬性攤派).<sup>99</sup> Unlike normal assignment orders that were made according to local fiscal situations, the "forced assignment" was the central government using its despotic power to force local governments to take up its fiscal burdens. Since the central government still possessed unquestioned political authority over local

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<sup>97</sup> 劉增合，〈光緒前期戶部整頓財政中的規復舊制及其限度〉，《中央研究院歷史語言研究所集刊》，總第 79 本 2 分（2008 年），頁 245。

<sup>98</sup> 張俠，《清末海軍史料》，頁 67。

<sup>99</sup> 何漢威，〈清季中央與各省財政關係的反思〉，《中央研究院歷史研究所集刊》第 71 本第 3 分（2001 年 9 月），頁 605。

officials, they could not ignore these fiscal obligations imposed on them, as otherwise their official careers would be at risk. Through the forced assignments, the central government amazingly squeezed a large sum of revenues from local governments to support various national projects, such as the Reconquest of Xinjiang and the Sino-French War. The amount of resource mobilized through forced assignments accumulated to 13.76 million tael before 1894.<sup>100</sup>

From the side of the local governments who took up the center's fiscal burden, they were under great pressure to mobilize revenues to meet the center's forced assignment orders. It has been suggested that those assignment orders probably caused huge fiscal burdens to local governments and exhausted their coffers. Taking Sichuan province as an example, among the 10.3 million tael of provincial annual revenue, over 80 percent were spent for demands outside the province itself in the form of both *jingxiang* and *xiexiang*.<sup>101</sup> In the case of Jiangsu province, the Jiangsu-Zhejiang governor Zuo Zongtang in 1883 requested the Board of Revenue to cut down Jiangsu's assignment orders when the flood had caused a significant reduction of *lijin* revenues. While local expenditures increased for disaster relief, the burden of meeting various assignment orders remained unchanged, which included regular *jingxiang*, construction projects of the Yellow River, military training fees for the Eight Banners and for local armies in Guizhou, Gansu, and Northeast provinces. Nonetheless, after praising Jiangsu for remitting revenues punctually in the past two years, the Board of Revenue rejected Zuo's proposal but stressed the importance of the assignment orders, and ordered Zuo to "try his best (勉為籌借，不得貽誤要需)." In the most extreme cases, the governors and the offices of the Imperial Maritime

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<sup>100</sup> 彭雨新，〈清末中央與各省財政關係〉，頁 14。

<sup>101</sup> 何漢威，〈清季中央與各省財政關係的反思〉，頁 565。

Customs in Guangdong and Fujian provinces even had to borrow short-term credits from domestic banks to meet the Board's assignment orders. Jiangsu and Hubei provinces had to cast copper coins amounting to 1.4 million of tael as "there was no other way to meet the orders."<sup>102</sup> Therefore, it is reasonable to infer that most of the provincial revenues were spent not for their own needs.

Although local governments vigorously sought for revenues to meet the massive assignment orders from the center, the two decades after the Taiping Rebellion did not see great improvement in Qing China's taxing capacity. First, the traditional pillar-land taxes, remained unchanged for centuries. The stagnation was based on two concerns: First, in the early years of the dynasty there were many instances of officials conducting local land survey and resorting to various kinds of abuses, such as demanding onerous fees from the land-owners, and popular opposition to this undertaking was aroused. Hence emperors and high-ranking officials deemed it not only financially unnecessary but also politically undesirable to embark on a cadastral survey.<sup>103</sup> Second, after the Taiping Rebellion the government was beset with increasing financial difficulties and therefore did not have the wherewithal to undertake a nationwide land survey even though scholars like Feng Guifen strongly advocated it.<sup>104</sup> The result was that Qing China's land tax revenue per capital fell far behind that of Meiji Japan and remained statutory after the 1850s.

Neither was increasing revenues from custom duties an available option. From late 1860s on, Western officials began to centrally manage the Imperial Maritime

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<sup>102</sup> 黃鑒暉，《山西票號史》（太原：山西經濟出版社，2002年），頁244。

<sup>103</sup> Tuan-Hwee Sng, Chiaki Moriguchi, "Asia's little divergence: state capacity in China and Japan before 1850," *Journal of Economic Growth* 19, no. 4 (2014): 441.

<sup>104</sup> Wang, *Land Taxation in Imperial China*, 77.



Customs and reliably collected customs for the Qing government. But just like Meiji Japan, the tariff rate of Qing China was fixed by the Western powers at 5 percent, and therefore customs receipts could only grow with the increasing volume of trade in commodities. Although the total revenues of custom duties increased four times from 4.9 million taels in 1861 to 20.5 million in 1887 due to growing foreign trade, the Qing government could not derive more revenues from customs duties by raising tariff rates.<sup>105</sup>

In terms of revenues from lijn duties, it became the major source of revenue for Qing China since the Taiping Rebellion. Initially started as an exigent fiscal measure in 1853, lijn duties was a kind of indirect taxes levied on domestic commercial goods in transition. After the collection of lijn duties became formalized during the post-war period, local governments in economic core areas raised the tax rate far beyond the modest 1 percent initially envisaged. As for regional variations, together the four southeastern provinces of Jiangsu, Zhejiang, Fujian and Guangdong provided more than 50 percent of the total lijn revenues, while the prosperous middle Yangzi region of Jiangxi, Hubei, and Hunan each contributed more than one million tael annually. There existed a large varieties of target goods, such as rice, silk, cotton, lumber, tea, and domestic opium that sustained high levels of returns. They were divided into 25 separate categories. The lijn duties levied on the sale of salt and imported opium augmented state revenues after the mid-1860s. By the late 1860s, nominal revenue from lijn duties averaged 15 million tael per year.<sup>106</sup>

But as Table 6 shows, it was calculated that after a sudden rise during the Taiping

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<sup>105</sup> Stanley F. Wright, *Hart and the Chinese Customs* (Belfast: W. Mullan, 1950), chapters 10 and 11.

<sup>106</sup> Stephen R. Halsey. "Money, Power, and the State: The Origins of the Military-Fiscal State in Modern China," *Journal of the Economic and Social History of the Orient* 56 (2013): 394. 鄭備軍, 《中國近代厘金制度研究》, 浙江大學博士學位論文, 2003 年, 頁 15。

Rebellion, lijin revenue remained stable for the two decades before 1895. Among various reasons of its stagnation, the decentralized collection and management of lijin duties were likely to be the most important. First, instead of being centrally collected at the place of production as the alcohol tax in Japan, majority of lijin duties was levied on goods in transition. Therefore, local governments had to set up many collecting stations in transportation spots to prevent tax evasion, and consequently resulted in high administrative costs that could not be easily reduced. Second, as the central government did not impose a uniform tax rate but let local governments decide according to their circumstances, many provinces, motivated by the task of meeting the center's assignment orders, tried to maximize their lijin revenues by lowering down the tax rate to attract businessmen from neighboring provinces to choose their transportation roads. This has led to a vicious competition among provinces which competed for taxpayers by cutting down tax rates. Eventually, it became hard for everyone to further increase revenues by raising tax rate.<sup>107</sup>

**Table 6.** Average Annual Lijin Revenue, 1861-1911

Year/period	Average Annual Lijin Revenue
1861-1875	15+ million tael
1875-1895	14 million tael
1908	20 million tael

Source: 羅玉東，《中國厘金史》上冊（北京：商務印書館，2010 年），頁 82，185。

<sup>107</sup> 羅玉東，《中國厘金史》上冊（北京：商務印書館，2010 年），頁 52。

The uniform tax rate experimented in Jiangsu province in 1890 was the last attempt of Qing China to improve lijin revenues before the war. As proposed by governor Liu Bingzhang, converting the various transit lijin levied on domestic opium by stations scattered in various regions into one uniform rate levied on big salers in producing provinces would facilitate the centralized management of lijin collection and extract more revenues.<sup>108</sup> However, it was not until the early 1900 did this reform become widely adopted. In 1903, the uniformed tax rate on domestic opium was first launched in Hunan and Hubei province. In his letter to Jiangxi governor, Hunan governor Duan Fang highly praised it as a mean to “increase revenue without expanding the basis, enrich the country without harming the people”. The reform result was beyond expectation. From January 1904 to 1905, incomes from lijin levied on domestic opium reached about 1.3 million tael, which was three times the amount before the reform. The same reform was also proven effective in Guangdong and Guangxi provinces.<sup>109</sup> However, before the First Sino-Japanese War, no nationwide reforms were implemented and revenue from lijin duties remained relatively stagnated.

#### ***4.4 Limited Borrowing Capacity***

The lack of borrowing capacity, especially at domestic market, has severely inhibited Qing China’s ability to rapidly mobilize resources for urgent demands. Since July 1894, the outbreak of the First Sino-Japanese War soon caused pressing fiscal demands. The 5 million tael reserves at the central treasury was quickly exhausted within one month. Other resource mobilization strategies, such as cutting ordinary

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<sup>108</sup> 徐毅，《江蘇厘金制度研究：1853-1911》（上海：上海財經大學，2009年），頁77。

<sup>109</sup> 劉增合，〈八省土膏統捐與清末財政集權〉，《歷史研究》，2004年第6期，頁121。

expenditures and increasing lijin duties levied on tea and sugar, failed to generate immediate revenues. Under such circumstances, borrowing, especially domestic borrowing became growingly attractive to the center.<sup>110</sup>

Starting from September 1894, the Board of Revenue launched a voluntary state bond targeting at wealthy merchants in Beijing (息借商款). Unlike previous merchant donations of which the money did not need to be repaid, the state bond was the very first attempt of the central government to borrow directly from the people with repaid interest and principal. The value of this bond was set as 100 million tael, bearing an annual interest rate of 7 percent, and the term was three years. Creditors also received official titles as complements for their contributions. Later on, the Board of Revenue orders provincial-governors to use the same method to mobilize resources from localities.

Nonetheless, the result was relatively unsuccessful as the subscription amount was only 6 million tael out of the center's initial 20 million target. The failure of floating domestic bonds was largely due to local governments' poor creditworthiness. Instead of centrally managing the subscription and interest payments of the state bonds or relying on private financial institutions to issue paper notes, the Board of Revenue distributed these bonds to provincial governments, which were then responsible for the interest payments on the bonds issued each province. In this way, the center in fact passed the burden of interest payments onto governors but did not have any effective means to discipline them to pay creditors on time.

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<sup>110</sup> Foreign borrowing was initially considered as less attractive due to the raising exchange rate of pound to Kuping tael. As claimed in the memorial of the Board of Revenue, the main reason for the Qing government's initial resistance to foreign borrowing was “息借洋款，多論磅價，折耗實多”。Quoted from 周育民，〈甲午戰後清朝財政研究（1894-1899）〉，〈中國經濟史研究〉，1989 年第 6 期，頁 89。

Evidences suggest that delays and nonpayment of interest were prevalent. Since the central government did not set up specific regulations of how these bonds should be termed and administrated at localities, the varied designs and corresponding success bonds in different regions clearly revealed the importance of creditworthiness in successful borrowing. For example, Guangdong governor Li Hanzhang, who well understood the importance of securing confidence in the initial stage of domestic borrowing, adopted an innovative strategy to entrust bond management to the local Imperial Maritime Customs. In this way, the Customs served as an intermediary between the creditors (local merchants) and the borrower (Guangdong government) and helped ensure the credibility of bonds. More importantly, since interest payments of the bonds were secured by customs revenues directly collected by the Guangdong Customs, they could be directly paid to creditors from the Custom Office without going through the Guangdong government, which may use revenues for other purposes. These strategies enhanced the creditworthiness of Guangdong government and made the bonds more attractive.<sup>111</sup> By contrast, bonds directly managed by local governments were less secured and welcomed. For example, Jiangsu governor Zhang Zhidong diverted the 0.6 million tael of lijin revenues away from paying the matured local bonds for preparing the initial capitals for the Suzhou Rayon Factory and Silk Factory, leading to massive complaints from merchants holding the bonds. The delays and even nonpayment of interests severely damaged local governments creditworthiness and added difficulties for Qing China's subsequent borrowing.<sup>112</sup>

The disappointing performance of domestic bonds forced the central government to

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<sup>111</sup> 李愛麗，〈從粵海關檔案看清末廣東省兩次公債發行〉，《近代史研究》2007年第3期，頁119。

<sup>112</sup> For example, the Zhaoxin Bond (昭信債券) issued in 1905. See 周育民，〈清末內債的舉措及其後果〉，《學術月刊》，1997年第3期，頁64-70。李玉，〈晚清昭信股票發行過程倫略〉，《近代史研究》，2006年第4期，頁111-127。

turn to foreign markets. In total, the central government borrowed 13 million pounds from British and Germany banks, which raised loans on behalf of the Chinese state in the international markets. Foreign borrowing constituted 5 percent of the total war mobilization of Qing government. However, the borrowing capacity of the Qing government was still very limited in comparison with the Meiji government, which was able to mobilize almost three times (22.367 million yen, or roughly 16 million tael) the amount of Qing China solely from domestic market.<sup>113</sup>

#### ***4.5 Impacts on Naval Buildup***

The weak resource mobilization capacity of Qing China has seriously constrained its ability to pursue naval power and respond to external threats. With weakened control of state resource since the mid nineteenth century, the Qing government had to use its despotic power to force local governments to compel with its assigned spending orders. However, this method was less effective in the case of naval funds, which belonged to ordinary state expenditure and was thus deemed as less important than other more urgent assignment orders by provincial-governors. Consequently, naval buildup in Qing China always struggled with achieving the original targets it set. The funding shortages largely determined the Qing China's passive response to foreign threats and sporadic way of expansion. Eventually, the stagnation of naval buildup since 1891 led to a relative decline of Qing China's naval capability and was proved fatal in the forthcoming war.

The weakness of fiscal decentralization was clearly exposed in the Board of

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<sup>113</sup> 周育民，〈試論息借商款和昭信股票〉，《上海師範大學學報》，1990年第1期，頁70-74。劉志堅，〈甲午戰爭清廷籌款考析〉，《福建論壇（文史哲版）》，1994年第4期，頁32-37。徐義生，〈從甲午戰爭到辛亥革命時期清政府的外債(上)〉，《經濟研究》，1957年第4期，頁115。

Revenue's resource allocation for naval buildup. Under Qing China's decentralized fiscal system, naval funds were to be remitted from provinces and customs under the Board's order. In 1875, the Board of Revenue allocated an annual fund of 4 million tael out of the *lijin* revenues from Jiangsu, Zhejiang, Jiangxi and Hubei and customs from Shanghai, Ningbo, Fuzhou, and Guangzhou as the navy's ordinary maintenance fees. However, as shown in Table 7, the navy only received 30 percent of the assigned amount of *lijin* revenues from the four provinces. The customs, while slightly better than the *lijin* revenues, also suffered from delays and arrears. The main reason was that the naval fund, as a kind of ordinary state expenditure, was not considered a priority by provincial-governors who struggled to meet other more urgent assignment orders more likely to threaten their official career. As explained by Zhili governor Zhang Shusheng, provincial-governors often tried their best to meet the assigned quota of *jingxiang* and urgent orders to avoid the severe punishments caused by delayed remittance (無論正雜各款，只要能湊齊京餉解額，各司道無不竭力籌措，以免延誤，至幹重咎). Therefore, the remittance of *jingxiang* was relatively satisfactory with just 6 percent rate of arrears, whereas the ordinary assignment orders such as naval funds and inter-provincial assistances suffered from frequent delays, reductions and arrears. One governor even claimed explicitly in the memorial that he would only assist other provinces when there was fiscal surplus (京餉，賠款是根本重地，交涉要需，仰體時艱，不敢輕言減免。惟協餉一項，必以此省有餘，始能助彼省之不足).<sup>114</sup> The success in funding urgent spending expenditures was in sharp contrast with the failure at meeting regular assignment orders.

**Table 7.** The Arrears of Ordinary Naval Funds, Qing China, 1875-1894

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<sup>114</sup> 劉增合，〈光緒前期戶部整頓財政中的規復舊制及其限度〉，頁 19。

Unit: million tael

Province	Assigned amount (a)	Received amount (b)	a/b
Jiangxi	2.15	1.10	50.57%
Zhejiang	3.10	1.24	42.7%
Jiangsu	3.10	0.36	12.4%
Hubei	2.175	1.66	76.3%
Total	14.5	4.36	30%

Source: calculated from 王家儉，《中國近代海軍史論集》（臺北：文史哲出版社，1984 年），頁 526。

Having been clearly aware of provincial-governors' priority, Beiyang governor Li Hongzhang tried to use the central government's political authority to discipline the offending governors. When Japan's occupation of Ryūkyū in 1879 rose a security alarm within the Qing court, Li took the chance to report the massive delays and arrears of naval funds to the Empress Dowager. According to Li, the actual amount of ordinary naval funds received by the Beiyang Fleet was not even half of the assigned 2 million tael. He further requested the Emperor Dowager to issue an imperial decree to urge governors to quickly send the assigned amount of revenues, otherwise the Beiyang Fleet would be at risk as it had no funds to purchase necessary equipment like gunboats, armored cruisers and ironclads. Again, in the next year, Li proposed to incorporate the naval funds as a part of *jingxiang*, through which could help ensure more punctual remittance of revenues.<sup>115</sup> However, the central government by that time rarely adopt severe punishments to discipline governors to abide by the regular assignment orders. Among various regular assignment orders, only the interprovincial transfer for Shaanxi-Gansu and Yunnan provinces were temporarily resolved through punishing offending officials.<sup>116</sup> One deep reason was

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<sup>115</sup> 張俠，《清末海軍史料》，頁 59。

<sup>116</sup> 劉增合，〈光緒前期戶部整頓財政中的規復舊制及其限度〉，頁 23。



that the Board of Revenue was unable to trace over time the sources of revenues that the governors had removed to meet urgent assignment orders. Hence it could not tell deliberate neglect from true inability to meet the regular assignment orders in provinces.

To make matters worse, the pre-assigned naval funds also suffered from removals for other state projects that were deemed as more urgent. For example, the infamous extravagance of the Empress Dowager was met by removing money from the regular naval funds and sent it to the Imperial Household. Although these removals were usually temporary, they still delayed the naval buildup as the repayment often took a long time. In consequence, among the assigned 4 million tael annual naval funds, the actual amount the navy received never exceeded 3 million tael. Disappointed with ordinary naval funds, Li Hongzhang frequently resorted to whatever resources available to pool sufficient funds. For example, the purchase of the Germany-constructed armored cruiser *Ji Yuan* (濟遠) in 1879 was completed by appropriating 0.44 million tael from the training fees for Huai Army under Li's management. Other sources of revenue include donations from salt merchants at Lianghuai area, residual revenue from the China Merchants Steam Navigation Company, spare cashes from military training fees of the Eight Banners, and even funds for foreign missions from the Zongli Yamen. Despite the varieties, they were mostly one-time assistances that could not solve the fundamental problem.

The prolonged funding shortage eventually caused the suspension of naval expansion since 1891. In the 1888 Charter of the Beiyang Fleet drafted by the Minister of Zongli Yamen Prince Chun and Li Hongzhang, they stressed that the Beiyang Fleet was not yet a real naval force according to the standard of European naval powers. The

battleships were insufficient in number, with only one transporting ship and no survey ship. And they further proposed an 18-warship expansion program that would add more armored and protected cruisers and equip the fleet with latest armaments.<sup>117</sup> Nonetheless, they conceded in the end that the expansion plan should “wait for ample funds” and that “they fully understand the current fiscal difficulty of the state.” In April 1891, the Board memorialized to the Empress Dowager to suspend naval expansion for two years because of the relatively “harmonious” foreign relations, and Li conceded. In 1893 when an extraordinary expenditure of 1.5 million tael occurred due to the need of repairing boilers in warships, Li Hongzhang suggested this demand to be postponed and the repairment to be gradually completed within a decade. In the end, except for an armored cruiser *Ping Yuan* (平遠) constructed at Fuzhou Naval Yard, the Beiyang Fleet did not expand until the outbreak of the First Sino-Japanese War.<sup>118</sup>

The stagnated expansion had disastrous impacts on Beiyang Fleet’s relative capabilities, which faded rapidly with the advent of more advanced naval technology. First, the average age of the major warships now reached seven to thirteen years. Second, since all the warships were completed before late 1880s, and none were updated with the modern medium-calibre quick firing (QF) gun. Even though Li Hongzhang realized the importance of armaments and made moves to re-equip the vessels, owing to the depredations of naval funds all that could be purchased were just a number of Gruson 4 pdrs, which were hardly significant. Last, for the size of the cruisers, although all had been fine in their time, none were over 3,000 tons displacement, which was small by the standards of the 1890s. Contrary to the

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<sup>117</sup> 中國史學會，《洋務運動》第3冊（上海：上海人民出版社，2000年），頁196-197。

<sup>118</sup> 《李文忠公奏稿》，卷72，頁25-26，〈覆奏停購船械裁勇營折〉。

suspension in China, Meiji Japan took this chance to actively pursue naval capabilities. The newly-acquired warships in the Imperial Japanese Navy all mounted either 6in or 4.7in QF guns. Two additions had been made after the *Matsushima*-class with their “battleship-killing” 12.6in Canets-*Akitsushima*, mounting 6in QF guns, and *Yoshino*, 4,150 tons, the latest 6in-gun protected cruiser from Armstrong Shipyard’s which had made 23 knots on trials.<sup>119</sup> The limited resource mobilization capacity of Qing China was eventually reflected in naval power.

## *Chapter 5. Conclusion*

To explain the historical puzzle of why the traditionally more powerful Qing China lagged behind Meiji Japan in naval buildup, I compared Meiji Japan and Qing China’s efforts to build a modern navy to demonstrate that state’s resource mobilization capacity, which consists of taxing capacity, fiscal centralization and borrowing capacity, was the key independent variable that influenced the two countries’ divergent naval buildup success. In Meiji Japan, the state improved the efficiency of land and indirect tax collection, centralized the control of state resources, and was able to issue long-term state bonds secured by regular tax revenues at domestic market. The extraordinary resource mobilization capacity of Meiji Japan played a key role in supporting its continuous naval expansion and urgent wartime demands. In contrast, Qing China did not significantly enhance its

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<sup>119</sup> Richard N. J. Wright. *The Chinese Steam Navy, 1862-1945*. (London: Chatham Publishing, 2000), 21.

resource mobilization capacity throughout the two decades. Instead, the central government's control of state resources was seriously weakened due to fiscal decentralization after the Taiping Rebellion. With stagnated tax revenue and inability to borrow domestically, Qing China failed to sustain the naval buildup to defend itself against aggressions from the West and Japan. The comparison further proves that conventional indicators such as the size of territory, population and economy, are not good enough to measure whether a state can effectively mobilize a vast sum of resources, especially within a relatively short period of time.

State's resource mobilization capacity is critical to the fulfillment of various government responsibilities and the implementation of all sorts of intended policy goals. Conversely, without adequate command over resources, the central government would be compelled to recede its role in the provision of essential public goods, such as defense against external security and the maintenance of internal order. After the victory over China in 1895, Japan continued to increase its allocation for naval buildup to around 25 percent of total state revenue.<sup>120</sup> The enormous resource mobilization capacity enabled the country to fight wars successfully against another great power, Russia, in 1904. In addition, the increased resource mobilization capacity also allowed the once pigeonholed national goal of "wealthy nation" to come back as policy agenda. While Meiji Japan's early industrialization attempts in the 1870s failed primarily because of fiscal shortages, subsequent industrial policies went on more smoothly with higher state capacity to devote resources to certain industries.<sup>121</sup> On the contrary, the declining capacity of Qing China threatened the

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<sup>120</sup> Schencking, *Making Waves*, 53.

<sup>121</sup> Osamu Saito, *Early Meiji Japan: a developmental state?* Retrieved from [http://research.uni-leipzig.de/eniugh/congress/fileadmin/eniugh2011/dokumente/Visible\\_Hand\\_and\\_Saito\\_2011\\_03\\_25.pdf](http://research.uni-leipzig.de/eniugh/congress/fileadmin/eniugh2011/dokumente/Visible_Hand_and_Saito_2011_03_25.pdf)

very survival of the Empire. With loosened grip on resource, the Great Qing Empire struggled to maintain its internal order and collapsed within a short time.<sup>122</sup>

By extending the discussion of “fiscal-military state” to the East Asian context, this research confirms that fiscal strength is the “sinews” of state power. Yet, it challenges the causal relationship between intra-state military competitions and state’s capacity-building as implied by case studies of Europe. Unlike the eighteenth-century European states that waged wars in an international context, the rise of the Japanese fiscal-military state has interestingly shown that even without major international warfare, state could still actively build up its capacity due to domestic crisis. In contrast, Qing China did not engage in active state building even though it had been involved in several external warfare before 1894. In this case, the “external warfare” is neither a necessary nor sufficient condition of state-building. What matters fundamentally is whether crises, whether domestic or international ones, would result in a severe fiscal crisis that could not be handled by the state’s existing institutions, thus generating strong incentives to break down the old system.

This study also challenges the realist theory of foreign/defense policy and complements the current neoclassical realist theories. The balance of power theory of Kenneth Waltz, which argues that the anarchical international system provides incentives for states to adopt similar adaptive strategies, fails to explain why Meiji Japan and Qing China responded differently when facing similarly threatening international environments.<sup>123</sup> Although neoclassical realism recognizes the

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<sup>122</sup> Ho Hon-wai. “A Final Attempt at Financial Centralization in the Late Qing Period, 1909-11,” *Papers on Far Eastern History* 32 (1985): 41. 劉增合，〈前恭後倨：清季督撫與預算制度〉，《中央研究院近代史研究所集刊》（2008 年第 66 期），頁 66。

<sup>123</sup> Kenneth N. Waltz, *Theory of International Politics*. (Reading, Mass.: Addison-Wesley, 1979).

shortcomings of the parsimonious realist theory and incorporates unit-level variables into the analytic frameworks, it has not yet come up with a comprehensive set of domestic variables that are key to explain states' varied balancing behaviors. The findings of this research suggest that the central-local fiscal relationships should be included in the variable list. Since it is usually the central government that takes overall charge of national defense, the military budget is positively correlated with the extent of fiscal centralization and negatively correlated with the level of decentralization. Therefore, the nuanced power distribution within the vertical state structure has to be examined if we are to develop a more comprehensive theory of foreign and defense policy.

The findings of this research could also shed some lights on China's contemporary under-balancing tendency. As a state with vast territory, China has always been bothered by fiscal decentralization from pre-modern to contemporary times. Over the century following the First Sino-Japanese War, the constantly evolving central-local fiscal relations and corresponding changes in the central government's resource mobilization capacity have significantly affected the state's military buildup. In 1988, to mitigate fiscal decline, China launched a "fiscal contracting" reform that allowed local governments more autonomy over tax collection and budgeting. As a result, while local expenditures grew fast, the ratio of central government revenue to state total revenue dropped sharply from 40.51 percent in 1984 to 22.02 percent in 1993.<sup>124</sup> Consequently, the center's investment on the military declined, and the People's Liberation Army (PLA) was encouraged to achieve self-sufficiency by profiting from military-enterprises, which expanded to various industries such as

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<sup>124</sup> Christine P.W. Wong, "Central-Local Relations in an Era of Fiscal Decline: The Paradox of Fiscal Decentralization in Post-Mao China", *The China Quarterly* 128 (Dec 1991): 695.

farming and food production, mining, transport, energy, equipment maintenance and repair.<sup>125</sup> Later in 1994, the central-local fiscal relations were again reversed towards recentralization through a tax-sharing reform, and the central share of total state revenue successfully rose to around 50 percent.<sup>126</sup> The center's advantageous position in state revenue distribution soon benefited the military. The PLA's self-sufficient budget was replaced with stable centrally allocated sources, and total military spending immediately increased by 5.2 percent in 1994.<sup>127</sup> However, in recent years, the central government once again considered readjusting fiscal relations with local governments due to the deteriorating fiscal situation of local governments. Although policy details remain unclear, it is likely that the center might extract less and increase the share of local governments' fiscal sufficiency, which would unavoidably constrain its own capacity.<sup>128</sup> These subtle changes in the domestic intergovernmental fiscal relations may give some clues of why China has been unable to pursue effective counter-balancing against powerful United States. For example, while the US typically spends 4% of its GDP on national defense, China's defense spending constitutes merely 1.5% of its GDP.

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<sup>125</sup> Thomas J. Bickford, "The Chinese Military and its Business Operations: the PLA as Entrepreneur", *Asian Survey* 34, no. 5 (1994): 461; Adam P. Liff and Andrew S. Erickson, "Demystifying China's Defence Spending," *The China Quarterly* 216 (Dec 2013): 808.

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