HONG KONG INSTITUTE FOR MONETARY RESEARCH
香港金融研究中心

Saving and External Imbalances in China
中國的高儲蓄率與外部失衡

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1. Abstract

Over the last decade, the internal and external macroeconomic imbalances in China have risen to unprecedented levels. In 2008, China's national savings rate soared to over 53 percent of GDP, whereas the current account surplus exceeded 9 percent of GDP. In view of these observations, the current paper presents a unified framework for understanding the structural causes of these imbalances. I argue that the imbalances are attributable to a set of policies and institutions embedded in the economy and that China's accession to the World Trade Organization has dramatically amplified the effects of these structural distortions. China's demographics and population control policies are also important factors behind the high saving rate. I document major trends in aggregate savings, investment, trade, and net foreign asset positions in China, and explore options for policy reforms aimed at rebalancing the Chinese economy.

2. Introduction

The integration of China into the global economy opened the linkages between its domestic activities and the international flow of goods and capital. The national savings rate and current account balance of China underscore such linkages, with both variables recently rising to extraordinarily high levels. In 2008, the aggregate savings rate of China soared above 53 percent of the gross domestic product (GDP), whereas the current account surplus exceeded 9 percent of GDP. With the accumulation of the current account surplus and net inflow of capital, the foreign exchange reserves of China climbed to an unprecedented level, topping USD 3 trillion in March 2011. This figure is nearly thrice the amount held by Japan, the second largest holder of foreign reserves in the world.

These imbalances are by no means a desirable outcome. China has concerns on the risk of potential capital loss in the face of the US dollar adjustment, the worsening trade relationships with other countries, and the ineffectiveness of boosting domestic consumption to sustain growth. Several major trading partners of China are also upset, and their politicians and analysts have blamed China for contributing to the failure of domestic firms and the loss of jobs, even for causing the recent financial crisis. Admittedly, identifying the causes of these imbalances is an arduous task because it not only involves domestic macroeconomic factors, but also the behavior of other economies. Despite a general awareness of the internal and external linkages, academic and policy research typically focus on the high savings in China or on the trade surplus and exchange rate policies.[2] No consensus exists on the causes of these imbalances and the right polices to resolve them.

In this paper, I propose a unified framework for understanding the joint causes of the internal and external imbalances in China. I argue that the extraordinarily high savings rate and trade surpluses are attributable to a set of policies, institutions, and structural distortions embedded in the Chinese economy. The analysis starts from the macroeconomic identity that the domestic savings-investment gap of a country is equal to its current account balance. Under this framework, exogenous policies and institutions that affect savings or investment affect exports and imports as well through either endogenous adjustments or direct effects, and vice versa. I will show that a wide variety of structural factors, such as income distributions across the corporate, government, and household sectors, incomplete social welfare reforms, and population control policies, systematically encourage savings. In addition, trade policies, such as export tax rebates, special economic zones, and exchange rate policies, strongly promote export. The accession of China to the World Trade Organization (WTO) in 2001 amplified the effects of these individual policies and jointly drove the internal and external imbalances of China to unprecedented levels.

I begin by documenting the trends in the balance of payments of China, including dramatic changes in the current account balance, net foreign asset positions, and the gigantic build-up of foreign exchange reserves. These trends highlight China as an important source of global imbalances since 2004. I then present the corresponding changes in national savings and investment. Based on these stylized facts, the major section of the paper focuses on the structural causes of the rising savings-investment gap and trade surpluses in China. The final section discusses areas for future research and explores options of policy reforms for rebalancing the Chinese economy.

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[2] Ma and Wang (2010) and Yang, Zhang and Zhou (2012) conducted two recent surveys on the high savings rate in China. See Goldstein and Lardy (2009) and Corden (2009) for the analyses of the current account surplus and exchange rate policies of China.

3. Trends in Current and Capital Accounts

The balance of payments (BOP) statistics report all cross-border flows of value between a country and the rest of the world over a period of time. To document the external imbalances of China, different categories of flows are classified as current account, foreign direct investment (FDI), capital-portfolio-other investment, official foreign exchange reserves, and statistical discrepancy. The sum of these components is zero by the principle of double-entry bookkeeping.

China has not always had a large external imbalance. Prior to China's accession to the WTO, the net current account fluctuated during 1985 to 2000, never exceeding 4 percent of GDP (Figure 1). From 2001 onwards, the surplus rose along a steep trajectory, accelerating further in 2005 and reaching 10.1 percent of GDP in 2007. Although the surplus moderated during the financial crisis, it remained high at 5.2 percent of GDP in 2010. Because the trade of goods and services is a dominant component of China's current account, we use these two terms interchangeably in the subsequent discussions.

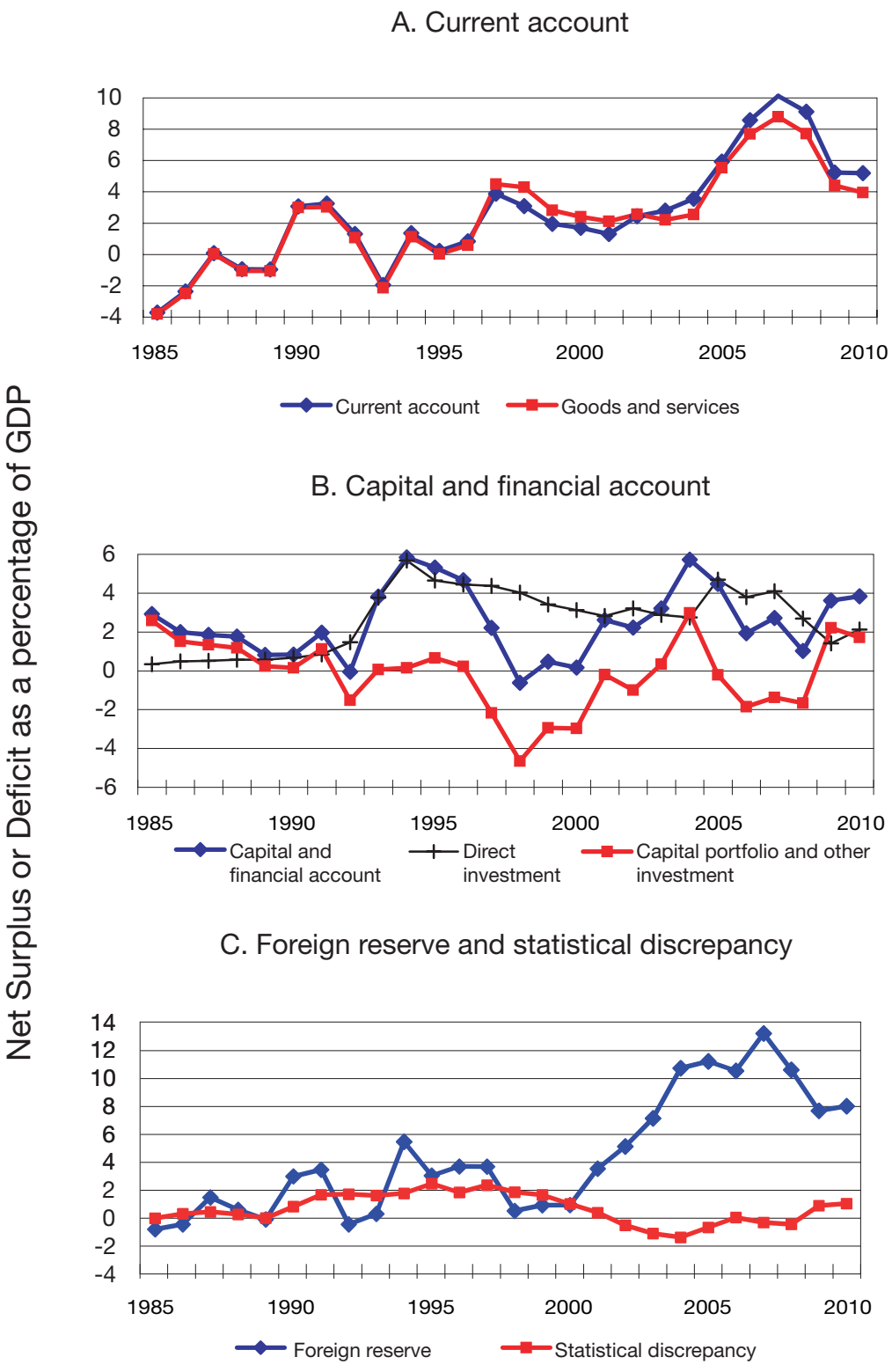
The net capital and financial account exhibit similar patterns as the trade account. Although jumps in the surplus occurred in the mid-1990s, the account settled into a balanced level before China joined the WTO. In the past decade, however, there was a sharp rise in the surplus, which was followed by a sustained high level. China notably experienced continued net inflow of FDI since the mid-1990s, being the second largest FDI recipient after the US. In the aftermath of the financial crisis, the FDI balance and the capital-portfolio-other investment account both stood in positive territories, adding to a surplus of 4 percent of GDP.

The persistent "twin surpluses" in current and capital accounts in the past decade has resulted in an explosion in foreign exchange reserves. In 2000, China only had USD 10.9 billion of reserves, equivalent to 0.91 percent of GDP. The subsequent inexorable rise in currency reserves is astonishing. In 2004, the yearly accumulation rocketed to 10.7 percent of GDP. After reaching a peak of 13.2 percent in 2007, it hovered to around 8 percent of GDP in 2010. As a result, the foreign exchange reserves of China exceeded USD 1 trillion for the first time in 2006. In June 2011, the total topped USD 3.2 trillion, which was approximately thrice the amount held by Japan.

While the BOP statistics capture the cross-border flows of value in trade and capital during a period of time, the net foreign asset (NFA) provides the stock position of the economy in external financial assets and liabilities. Hence, a current account surplus (deficit) translates into an increase (decrease) in the NFA position. Adopting an approach similar to that of Lane and Milesi-Ferretti (2007), Ma and Zhou (2009) documented the emergence of China as a large and rising creditor in the world. In only 10 years, the NFA position of China swung from a net debtor of approximately 6.2 percent of GDP in 2000 to a net creditor of approximately 30.5 percent of GDP in 2010 (SAFE, 2011). On the asset side, foreign exchange reserves account for a lion's share of China's NFA, reaching 69 percent in 2010. Currently, the NFA holding of China is the second largest in the world after Japan.

The surge in the current account surplus and the resulting changes in the NFA positions in the past decade identify China as a major contributor to the global imbalances. Table 1 shows that the current account surplus of China equals a modest USD 20.5 billion in 2000. However, in the years prior to the financial crisis, China emerged as the largest net lender with a surplus of USD 436.1 billion in 2008, which is equivalent to 24.3 percent

Figure 1. International Balance of Payments of China: 1985-2010



Source: State Administration of Foreign Exchange of China (ASFE, 2011).

Table 1: Global Current Account Balances (Billions of US dollars)

Country or region	1995	2000	2005	2008	2010
Advanced economies:	29.8	-270.6	-411.2	-471.8	-95.5
Japan	111.4	119.6	165.7	157.1	194.8
United States	-113.6	-416.4	-747.6	-668.9	-470.2
Euro area	70.5	-39.4	41.1	-86.7	11.6
Germany	-29.6	-32.6	142.8	245.7	176.1
Spain	-1.8	-23.1	-83.3	-156.0	-63.3
Other	-38.5	65.6	129.7	126.7	168.4
Norway	5.3	25.3	49.1	79.9	53.3
Australia	-18.4	-15.3	-41.7	-47.2	-31.7
Emerging and developing economies	-92.2	95.2	443.0	704.2	378.1
Asia	-36.9	41.7	167.5	435.9	308.1
China	1.6	20.5	160.8	436.1	306.2
India	-5.6	-4.6	-10.3	-24.9	-49.0
Middle East and North Africa	-1.2	80.4	212.7	343.1	152.8
Sub-Saharan Africa	-9.9	2.1	-3.4	0.0	-24.9
Latin America and the Caribbean	-37.9	-48.4	36.3	-31.2	-56.9
Central and Eastern Europe	-10.2	-28.9	-57.7	-151.3	-76.0
Former Soviet Union	3.8	48.3	87.6	107.7	75.0
Statistical discrepancy	-62.4	-175.4	31.8	232.4	282.6

Source: International Monetary Fund, World Economic Outlook Database, April 2011.

of the global total surplus. Germany followed a similar path by swinging from a current account deficit of USD 32.6 billion in 2000 to a large surplus of USD 245.7 billion in 2008. The sum of the surpluses of these two countries roughly equals the huge deficit of the US at USD 688.9 billion in that year. In the aftermath of the financial crisis, China continued to have the largest current account surplus among all countries as of 2010.

The initial rise and the subsequent explosion in the "twin surpluses" caught the Chinese government off guard. The policy target of the 11th Five-Year Plan was to achieve a balanced current account from 2006 to 2010, which differs drastically from reality. Tensions with trading partners increased, and so did the risk of capital loss in the face of the US dollar adjustment. China, as a fast-growing developing country, is in an unusual position because funds, which were to be used to finance domestic investment and stimulate growth, have actually flown out of the country. These reserve assets are mostly invested in low-return US government bond market.

Given that much is at stake, studies have attempted to understand the causes of these imbalances. A common view is that the intervention of the exchange rate conducted by the Chinese government is the culprit for the severe trade surplus. Economists have also identified several causal factors, including financial market imperfections, the migration of processing trade into China because of the global division of labor, and the pursuit of export-led development strategies (e.g., Yu, 2007; Goldstein and Lardy, 2009; Song, Storesletten and Zilibotti, 2011). Federal Reserve Chairman Bernanke, in his saving glut hypothesis, emphasizes that the changes in desired savings and investment in a region affect the external balances of this region and those of other countries around the world (Bernanke, 2005). Governor Zhou of the People's Bank of China highlights the role of high savings rate in affecting the current account surplus in China (Zhou, 2009). He elaborates a clear policy intention to reduce the savings ratio. Although these studies recognize the relevance of savings to the current account balance, they do not investigate the reasons behind the high savings rates. An even more serious challenge is deciding whether the high savings rate is the cause or effect of the current account surplus in China.

4. Domestic and International Linkages

Aggregate savings connect to the external balance through the national income identity. National product (Y) can be represented by a country's total spending for all purposes, including the private consumption of domestic plus foreign goods and services (C), government spending (G), private investment purchases of capital goods (I), and the difference between export (X) and import (M) of goods and services (including transfers). Since national savings (S) refers to the portion of the national product that is not consumed privately or spent by the government (S=Y-C-G), the following equation captures the relationship between national savings, domestic capital formation, and the current account balance:

$$S - I = X - M. \qquad (1)$$

This identity has a straightforward interpretation: The national product not consumed or invested at home must be equal to the net purchase of the rest of the world, which is the current account balance. Therefore, the gap between savings and investment equals the net flow of foreign investment over time, i.e., the national savings not invested at home is invested aboard. This equation can help clarify what forces cause the serious internal and external imbalances in China.

Figure 2 provides the trends in aggregate savings and investment in China from 1992 to 2008, complementing the balance of payments statistics presented in Figure 1.[3] The Flow of Funds Accounts (FFA) data contain not only the composition of gross domestic savings and investment by household, business, and government, but also the information on income and expenditures within each of these sectors. An analysis of FFA data can help explain the domestic economic activities of China and hence, the underlying factors behind the evolution of trade balances and NFA positions.

FFA statistics reveal several dramatic structural changes in savings and investment in China. These changes closely relate to the BOP statistics. Panel A shows that the national savings of China moved in lockstep with the aggregate investment in the late 1990s. However, from 2000 onwards, when China began to experience the twin surpluses, the aggregate savings rate increased along a steep trajectory, moving above the rate of investment. Initially, the savings-investment gap is modest at approximately 2 to 3 percent of GDP. Since 2004, however, national savings exhibited a strong upsurge at approximately 2 percent of GDP per year for five consecutive years, whereas the investment rate stopped its uptrend and settled into a stable level. This uneven growth registered a huge gap between savings and investment from 2005 to 2008, as well as the corresponding large current account surplus, prior to the outbreak of the financial crisis.

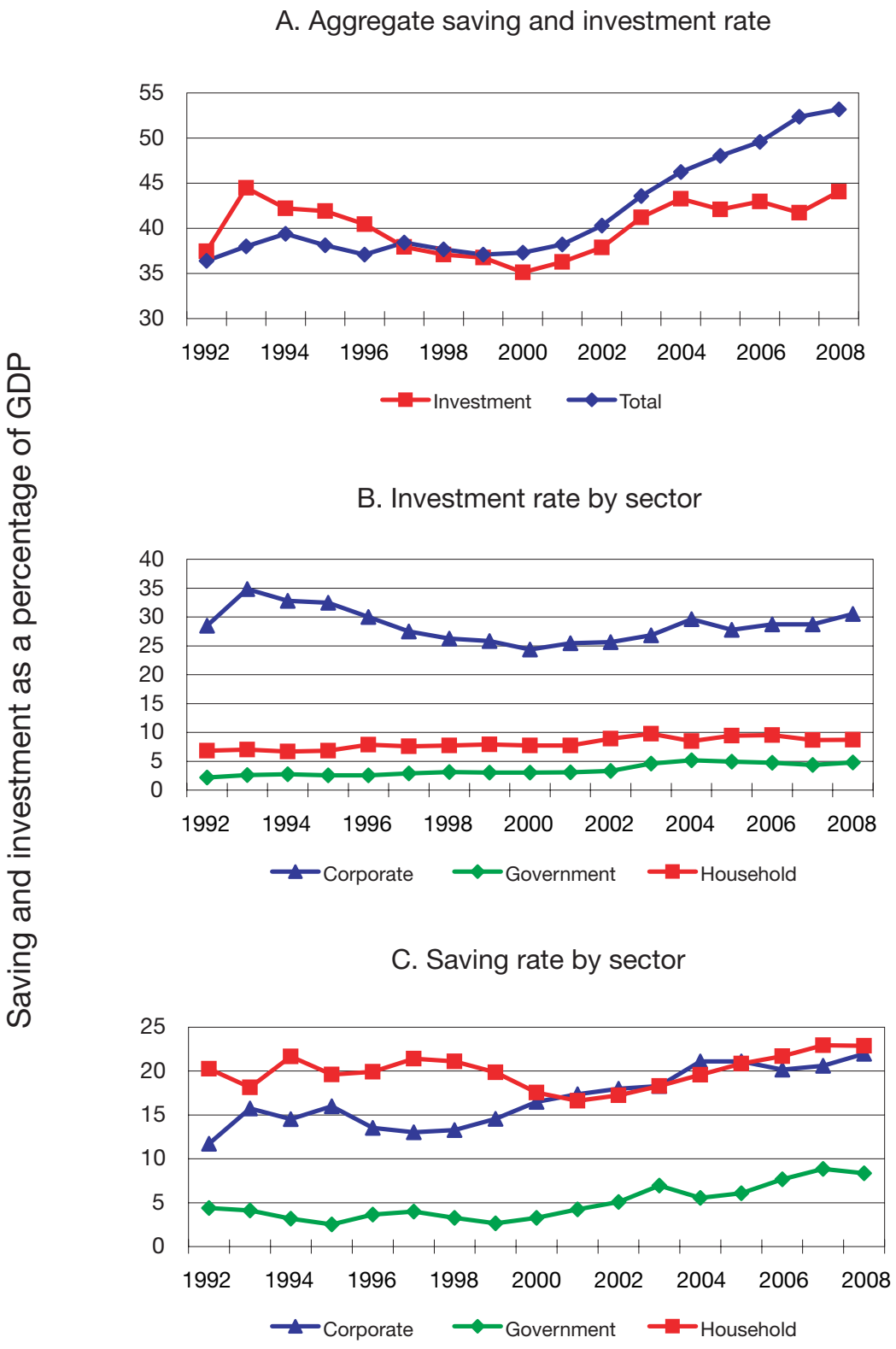
Panels B and C present more disaggregate information on savings and investment by corporate, household, and government sectors. From 2000 to 2008, on the investment side, the corporate sector contributed 6.15 percent out of 8.93 percent of the total increase in domestic investment as a percentage of GDP. On the savings side, all three sectors contributed significantly, and rather evenly, to the 15.9 percent total increase in the national savings during this period. The emergence of the large gap between savings and

[3] In 1995, the National Bureau of Statistics (NBS) of China began to publish the Flow of Funds Accounts based on the physical transactions of national income accounting, covering the government, corporate, and household sectors. With a three-year lag policy, the most recent data available for analysis cover 1992 to 2008.

investment reflects the fact that after 2004, although the investment rate plateaued from 42 percent to 44 percent of GDP, the savings rate climbed continuously to new heights, reaching 53.2 percent in 2008.

The identity regarding the internal and external imbalances helps in the understanding of how domestic macroeconomic variables link with trade variables. The determination of each variable involves complicated decisions by individuals and firms in the domestic and international channels. Endogenous mechanisms exist, through which the actions of individual agents that affect the trade balance also affect the savings and investment gap and vice versa. Presumably, changing economic circumstances may result in an imbalance on either side of the equation, but countervailing forces may start to develop, creating a tendency to reinstall the equality. What are the systematic factors that have pushed up the imbalances so sharply in China?

Figure 2. Saving and Investment in China: 1992-2008



5. Structural Causes of China's Imbalances

The emergence of large internal and external imbalances in the past decade is attributable to a set of structural distortions in the Chinese economy. On one hand, policies and institutions facilitated an upsurge in aggregate savings and restrained overinvestment in productive capacity, resulting in an excess of savings over investment. On the other hand, various policies in pursuit of export-led growth further exacerbated the current account surplus. These structural factors are either historical legacies that were inherited from the central planning system or government policies and regulations exogenously imposed on the household and corporate sectors. A number of policies directly affect savings, investment, and trade. Other policies may appear to be unrelated to key macroeconomic variables. However, these policies eventually result in imbalances through the rational behavior of households, enterprises, and local governments. The entry of China into the WTO, along with a confluence of favorable developments in the past decade, amplified the effects of these policies, pushing the imbalances up to extraordinary scales.

6. Policies and Institutions behind the Rising Savings

Before analyzing specific policy distortions, it is important to document the primary sources of the rising aggregate savings across the corporate, household, and government sectors. The national savings rate can be written as a weighted average of the savings rates of the three sectors: $s = s_c\pi_c + s_h\pi_h + s_g\pi_g$, where the weights ($\pi$) are the shares of disposable income of each sector in the GDP. To analyze the source of savings change, the equation can be differentiated with respect to time, and the following expression is obtained:

$$\dot{s} = \left(\dot{s}_c\pi_c + \dot{s}_h\pi_h + \dot{s}_g\pi_g\right) + \left(s_c\dot{\pi}_c + s_h\dot{\pi}_h + s_g\dot{\pi}_g\right).$$

This equality implies that a change in the aggregate savings rate over time can be decomposed into either the changes in the savings rates of the sectors or the changes in their income shares.

FFA data are used to analyze the sources of savings increase from 2000 to 2008. According to the FFA, enterprise savings equals the value added for both financial and non-financial companies minus labor compensation, production taxes, net asset payments, and net transfer payments.[4] Therefore, by definition, the corporate sector has a unitary propensity to save because total corporate savings is equivalent to the "total disposable income" of the business sector, where final consumption does not take place.[5] In contrast, the average propensity to save for households during this period is 32.8 percent, high by its own standard, but significantly lower than the corporate propensity to save.

A decomposition using FFA data helps identify three major sources of savings increase from 2000 to 2008. These sources are (a) a sharp rise in the share of the disposable income of the enterprise in the GDP, (b) an increase in the rate of household savings, and (c) a rise in the rate of government savings. During this period, the share of corporate income in GDP rose by 5.5 percentage points, absorbing almost all the 5.7 percentage point decline in the share of household income in GDP. The corporate sector has a unity propensity to save; thus, the increase in corporate income share alone drove up the aggregate savings by 5.5 percentage points. In addition, the increases in the savings rates of the government and households contributed 4.1 and 7.6 percentage points, respectively, to the rise to the aggregate savings rate. The three remaining components of the decomposition, the change in the savings rate of the corporate sector and the changes in government and household income shares, played a limited or no role in the change in aggregate savings.

Several structural reasons contributed to the soaring profitability of the enterprises since China joined the WTO. By the late 1990s, China completed a series of reforms, including the use of labor-incentive schemes and the relaxation of worker mobility restrictions. Moreover, China implemented the massive privatization of state-owned enterprises (SOEs) in the late 1990s with the objectives of improving corporate governance and maintaining the competitiveness of the state sector in the national economy. As a result, the employment share of the state sector fell, its labor productivity rose, and the competitive pressure also spread to increase the efficiency of non-state firms. However, the costs of production did not rise in a

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4 More specifically, asset payments include interest payments, dividends, and land rentals, whereas transfers include corporate income tax, social insurance fees, social subsidies, and social welfare payments.

5 See Ma and Wang (2010) and Yang, Zhang and Zhou (2012) for additional explanation.

manner that is sufficiently fast to erode productivity improvements. To a significant extent, the incomplete institutional reforms maintained the legacy of the high-accumulation strategy from the central planning era. The suppression of wages, low interest payments on loans, and low land rentals all increased the disposable income of the enterprises, thus giving them more opportunities to save. These forces of economic planning continued into the reform era, despite a gradual reduction in distortions over time. The segmentation of rural-urban markets implies that massive amounts of unskilled labor can readily migrate into cities to meet industrial demand, thus decelerating urban wage growth. In addition, SOEs financed their loans and paid their debts at interest rates significantly lower than the prevailing market rates. If SOEs actually paid at market interest rates, their existing profits, and thus their savings, would have been greatly reduced (Ferri and Liu, 2010).

The confluence of several favorable factors associated with the WTO accession, when combined with the above mentioned institutional factors, created a powerful force to increase firm productivity and profits. With falling trade barriers and tariffs, the dramatic expansion in external demand handed China an opportunity to realize its potential comparative advantage in trade. The continued FDI inflows, as well as the importing of sophisticated intermediate inputs, pushed Chinese exports up. Between 2000 and 2008, export growth reached an unprecedented 24.8 percent per annum (NBS, 2009). The saving capacity of enterprises reflects their profitability. The ratio of profits to industrial value added improved remarkably from an average rate of 22.6 percent from 1995 to 1999 to 34.4 percent in 2008. Corroborative evidence also exists that the share of enterprise income in the GDP rose from 14.2 percent in the second half of the 1990s to 22.9 percent in 2008.

The increase in corporate profits does not necessarily imply an increase in aggregate savings rate if the profits are distributed to the households that have a higher propensity to consume. In China, however, the corporate sector retained a significant amount of the increase in firm profits. Ge and Yang (2012), in their study on the long-term wage trends in China using a national representative sample of urban households, report that the average real wages increased by approximately 8 percent per annum from 2000 to 2007, which is approximately 2 percentage points below the real GDP growth. Although some stockholders earn dividends, the total dividend payments only account for a small proportion of the enterprise value added. Despite an upward trend in dividend payments, the ratio of dividend to value added was still less than 0.5 percent by 2007 (Yang, Zhang and Zhou, 2012). Part of the story is that the Chinese government did not ask the SOEs to pay dividends until 2008 although they enjoyed improved profits since the state-sector restructuring in the late 1990s.[6] Moreover, private enterprises had extra incentives to save because of legal and financial market imperfections in China, where credit creations are mostly controlled by state banks. These state banks have an intrinsic bias in favor of the SOEs, and private enterprises have to finance themselves out of their internal savings (Song, Storesletten and Zilibotti, 2011). Lower dividends and the motivation for investment translate directly to a high savings rate for the corporate sector.

Without factor market distortions and structural rigidities, increased corporate profits are likely to become the disposable income of households. With a significantly higher propensity to consume than firms, families spend part of the increased income on domestic consumption, thus lowering the aggregate savings rate. Moreover, the trade balance is indirectly affected because consumers

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6 These aggregate statistics appear to be consistent with firm-level data reported by Zhang (2008) that for a large sample of Chinese firms in the period of 1999 to 2003, the average and median dividends to earnings ratios were 0.35 and 0.16, respectively.

are likely to increase their purchase of imported goods. Hence, the reallocation of income to the households works through both sides of Equation (1) to reduce internal and external imbalances.

The rise in government savings from 3.28 percent of GDP in 2000 to 8.35 percent in 2008 also contributed significantly to the rise in aggregate savings in China (Figure 2). The fiscal systems and the collection of social security fees significantly contributed to this outcome.

The government disposable income, which primarily comprises the value added from government production, income from properties, taxes on all production, income taxes, and social insurance revenue minus labor compensations, rose from 1891.6 billion Yuan in 2000 to 6797.7 billion Yuan in 2008 (NBS, 2011). The rise in tax revenues on production was the largest contributor to the growth in government income during this period. The net tax increased by 3442.8 billion Yuan, accounting for 70.2 percent of the increase in the disposable income of the government. The institutional foundation behind the rise in tax revenues can be traced back to the famous 1994 Fiscal Reform in China, which managed to reverse a declining trend in state revenues beginning in the mid-1980s. The reform aimed to boost revenue collections and reclaim the majority of the total revenue by the central government (Wong and Bird, 2008). From having a low share of net revenue in the GDP in the early 1990s, the effective tax system, along with an average annual GDP growth of approximately 10.4 percent, increased government revenue from 2000 to 2008.

The second largest contributing factor to government disposable income is net current transfers. According to detailed FFA sources, the government collected 1489.8 billion Yuan of income taxes and 1369.6 billion Yuan of social insurance fees in 2008. However, the government only spent 1601.1 billion Yuan on social welfare payments, social insurance provisions, and other transfers. As a result, the government had a net gain of 1258.3 billion Yuan in net transfers in 2008, which is an increase of 1191.4 billion Yuan from the 1992 level, accounting for 19 percent of the growth in government disposable income during the same period. Overall, the combined increase in taxes on production and transfers added to approximately 81 percent of the growth in disposable income from 1992 to 2008. This finding can be interpreted as a rational behavior of the government in anticipation of the rise in elderly dependency looming in the next decades.

Compared with the sharp increase in state income of 4906.1 billion Yuan, the total growth in government consumption of 3754.8 billion Yuan is still modest. As a result, government savings increased from 3.3 to 8.4 percent of GDP. This tally is consistent with the popular view of “Nation Rich, People Poor,” which is widely discussed in the public media in China. A piece of corroborative evidence is that the share of household income in the GDP declined from an average of 68 percent from 1995 to 1999 to 57.1 percent in 2008 (NBS, 2009). Although this view correctly describes the changes in the income position of the government in the past two decades, the tax revenue as a percentage of GDP in China is still lower than that of major developed economies, such as Japan, Germany, and the US.

Household savings in China rose substantially in the past three decades, along with economic reforms and fast income growth. In the late 1970s, household savings only accounted for 6 to 7 percent of the GDP (Qian, 1988; Kraay, 2000), but grew to 22.87 percent in 2008 following persistent increases from 2000 to 2008. Given the importance of the household sector, considerable research is devoted to understanding family saving decisions. A number of early studies applied the classical models in understanding China. These models include the Keynesian absolute-income

hypothesis, the Modigliani-Brumberg life-cycle theory, and the Friedman permanent-income hypothesis. More recent studies also investigated the significance of habit formation and cultural-based explanations to saving behavior, yielding inconclusive empirical evidence. Although space limitations do not allow for a careful review of these analyses, the present study focuses its discussions on major policy and institutional factors that helped drive up household savings in the last decade.

A striking feature of the Chinese household saving behavior lies in the changes in the age-saving profiles. In the early 1990s, the age-saving profile reveals a relatively flat "hump shape," resembling the typical life-cycle saving profiles observed in other economies (Modigliani, 1970). However, Song and Yang (2010), using the national sample of Urban Household Surveys, report that the saving profile for 2007 exhibits a dramatic change. These changes are seen in (a) the substantial increase in savings rates for households of all ages, and (b) the age-saving profile turning into a "U-shape" over the life cycle, that is, the young and the old saved relatively more than the middle aged. These patterns are consistent with the observations first made by Chamon and Prasad (2010) for selected Chinese provinces from 1995 to 2005. These two features present a challenge for understanding the determination of household savings in China.

Song and Yang (2010) present a household model and show quantitatively that the dramatic rise in household savings and the corresponding changes in age-saving profiles are outcomes of two structural changes in China. First, there are large upward shifts in the earnings of successive younger worker cohorts, whereas individual age-earning profiles flattened during the past two decades. These changes reflect labor market transitions from a centrally planned economy, where seniority was highly regarded, to a market system, where earnings reward the productive human capital of the younger generations. Second, due to incomplete social welfare reforms, the aggregate pension replacement rate, which is the ratio of average pension per retiree to average wages per worker in specific years, declined from approximately 80 percent in the early 1990s to a range of 52-58 percent in 2007. Incorporating these features of the Chinese economy into a dynamic optimization model of heterogeneous agents, the study shows that structural changes in the labor market and the decline in the pension provision account for the recent surge in household savings, as well as the U-shaped age-saving profiles over the life cycle.

The population control policies and the resulting demographic changes affect household savings through two channels. First, as the nonworking population consisting of the young and the old consumes without producing an income, a rise in their share in the population reduces national household savings. Second, in a developing country without a mature social security system, children provide old-age support to their parents. Hence, the children act as an effective substitute in the life-cycle savings. Motivated by these factors, Modigliani and Cao (2004) use the ratio of the employed population to the number of minors up to the age 15 to approximate demographic change. They find that the decline in young population dependency for the period of 1953 to 2000 increased Chinese household savings through both effects of "less mouths to feed" and old-age security.[7] Ge, Yang and Zhang (2012) provide corroborative evidence through a cohort-specific

[7] However, this time series evidence is not confirmed by panel data studies. Neither aggregate dependency ratio (Kraay, 2000) nor separate accounts of the young and the old dependency ratios (Horioka and Wan, 2007) are found to have a significant effect on the household saving rates across Chinese provinces. Applying a cohort analysis to the data from the UHS, Chamon and Prasad (2010) reach a similar conclusion that demographic structural shifts do not go very far in explaining saving behavior in China.

analysis based on data from the Census of Population and Urban Household Surveys. They find that household savings rates increase as a result of a reduction in the number of children born in older families because of the lack of old-age security from children. For younger households, savings rates increase because of the rise in the burden of parental support as a result of the reduced number of siblings.

Competitive saving motive is yet another demographic factor related to the imbalanced sex ratio in China (Wei and Zhang, 2011). As the two authors argue, the traditional preference for a son is widespread in China. With restrictive population control policies, many families use the inexpensive type-B ultrasonic technology to detect the gender of fetuses and engage in sex-selective abortion, resulting in a severe imbalance in the sex ratio. The intensified competition among men for potential wives stimulates households with a son to spend thriftily to accumulate wealth to gain a competitive edge in the marriage market. Building on this idea, Wei and Zhang use provincial panel data (1978 to 2006) to test the effect of sex ratio imbalance on household savings. They show that the imbalanced sex ratio significantly increases household savings, with approximately 68 percent of the increase in rural savings rate and 18 percent in the urban rate being attributed to the rise in the sex ratio.

Finally, the incomplete transition from public to private provision of education, health care, and housing contribute to the rising household savings. Several authors argue that the backwardness of financial institutions in China fails to pool risks by providing adequate medical insurance and unemployment insurance or transforms savings into education, housing, and other investment loans (e.g., Woo, 2008; Chamon and Prasad, 2010). However, a number of these factors might not be of great significance once the economy moves into a new steady state. The heavy spending of other households in dealing with the adverse events offsets the precautionary savings of some households. However, these factors are still important during the transition period. Lin, Dinh and Im (2010) also investigate the implications of the financial structure for household savings. They argue that Chinese institutions impose a dampening effect on wage growth because the labor-intensive small- and medium-sized enterprises cannot receive adequate loans from state-dominated banks. In addition, ordinary people are excluded from sharing the high profits of state-monopolized industries and the natural resource sectors. The resulting income disparity or the concentration of wealth to the rich, affects the rise of household savings.

7. Constraints on Investment Growth

In 2000, on the eve of the entry of China into the WTO, the aggregate investment rate was at a trough of 35 percent of GDP (Figure 2). This rate was the result of a significant moderation in investment in the late 1990s, when China experienced deflation and over capacity in production. However, between 2000 and 2005, the investment rate began to climb rapidly along with the savings rate, before the investment rate settled into a narrow range of 42 to 44 percent from 2005 to 2008. The increase in the savings rate in excess of the plateaued investment rate resulted in the severe domestic imbalance.

Policies and structural rigidities play a role in creating a gap between savings and investment. Although the government can effectively control investment, it has less control over savings decisions, which is the underlying cause of the gap. Improvements in the investment climate, which resulted from joining WTO, induced a boom in both FDI and domestic investments in China. According to Anderson (2008), these domestic investments were mostly made by large-sized SOEs and concentrated on heavy industries, such as metals, materials, machinery, automobiles, and chemical products. These investments increased production capacity, displaced imports of related products, and subsequently began exports of surplus production.

In China, the government has effective measures to control investment. In 2005, when the central government felt the need to avoid the overheating of the economy, the National Development and Reform Commission issued a directive to control tightly the risk of overinvestment with a list of "prohibited industries" for further expansion. The heavy industries that underwent dramatic expansions in capacity topped that list. Since then, with a continued fear of the economy overheating, the Chinese government managed to control the aggregate investment rate at a steady level.

Rising savings presents a challenge to the economy to channel the excessive savings toward high-return projects. However, the Chinese economy does not have an efficient financial system to accomplish this task. As Song, Storesletten and Zilibotti (2011) explain, the state-owned banks are incapable of providing effective loans to the growing and more efficient private firms because of various legal and political problems. The immaturity of the financial system hinders the channeling of the excess savings to education, housing, and other family-based investment loans (Woo, 2008). Chinese banks are awash with cash and eventually find their way to invest in low-yielding US government bonds.

The lack of attractive investment opportunities in China arises from government restrictions on foreign direct investment in certain strategic, high-tech, and frontier industries. Wholly foreign-owned companies were restricted or prohibited in China in the 1990s, whereas joint ventures were encouraged. The primary target of such a policy was to maximize the access to foreign advanced technologies because learning costs are perceived to be lower within firms. However, Sheng and Yang (2011) show that such policies ended with the opposite outcome. When the host country governments liberalize their ownership structures with concurrent improvements in contract enforcement, they attract the transfer of more advanced products by multinational companies. These technology transfers raise the productivity of domestic firms, thus increasing the return of investment. Although the relaxation of ownership restrictions occurred in the face of China's accession to the WTO in 2001, wholly-owned foreign enterprises are still prohibited from entering some industries. Therefore, these restrictions on FDI decelerate the process of industrial upgrading in China.

8. Trade Policies

China has vigorously pursued export promotion policies since the formulation of its open door reform policies in the late 1970s. In the years leading up to its accession into the WTO, China practiced a combination of export promoting and import restricting policies through tariffs, quotas, and import licenses. In the early years of reforms, the primary concern of the government was the avoidance of BOP problems resulting from excessive borrowing and trade deficits. As a membership requirement, China phased out much of the import barriers by the late 1990s. The combination of export promoting strategies consists of a self-balancing regulation on the export content of foreign firms, special trade zones, liberalization of ownership restrictions on FDI, export tax rebate, and exchange rate policy. Although these policies were already in practice in the 1980s, they were not a significant concern because China never had a current account surplus exceeding 4 percent of GDP in the 1990s. I show that the entry of China into the WTO is a catalyst that amplified the effect of export promoting policies on trade surplus, pushing it to reach an extraordinarily high level.

The self-balancing regulation, which was passed into the law governing multinational companies, requires that the FDI be export-oriented (Yu, 2007). A 1990 version of the implementation guideline sets an explicit rule that exports must exceed 50 percent of the total annual output of foreign firms. Although this explicit restriction was relaxed in a 2001 revision of the law, it still encourages FDI with an export orientation. Under the effect of these regulations, the foreign-invested enterprise share of Chinese exports rose from approximately 20 percent in the early 1990s to 56 percent in 2009.

In the early 1980s, China established special economic zones for export in coastal cities. Owing to their initial success, special zones were expanded into inland cities. Multinational companies in these zones enjoy various advantages, including better protection of intellectual property rights, lower corporate tax rate of 15 percent, duty free for imported inputs, no import quotas, low costs of land, and no property tax in the first five years. Additional benefits were also given to foreign firms if they export most of their products (Wang, 2010). Data reveal two booming periods of policy zones. The first period is from 1990 to1993, when the cumulative number of zones jumped from 18 to 130. The second is from 1999 to 2003, when the number increased from 139 to 196 (Sheng and Yang, 2011). A total of 221 policy zones were established in China as of 2006. Wang (2010) finds that these special economic zones attract FDI primarily in the forms of foreign-invested and export-oriented industrial enterprises. The Chinese government also gradually lifted various ownership restrictions on FDI by expanding a list of encouraged industries while reducing the categories of the restricted or prohibited industries (Sheng and Yang 2011). Two major jumps in the encouraged industries are found in 2002, the year after China joined the WTO, and in 2007, the year after the Chinese government promised to remove most of the trade and investment protections. These nationwide initiatives on ownership liberalization raised the volume of processing export, as well as the product varieties of multinational firms.

Export tax rebates are yet another trade policy tool for promoting export. This program entails the refund of tariffs on imported inputs and value-added tax (VAT) already paid on exported goods. These policies discriminate against goods sold domestically, especially on goods using imported inputs; and, they created the incentive for firms to

sell products abroad. Under conceivable circumstances, goods are sold to foreign buyers at cheaper prices. After the Asian financial crisis in 1997 and to raise the competiveness of Chinese exports in the wake of WTO accession, China lifted the rebate rates several times, reaching an average of 15 percent in 1999. The total value of the rebate payment increased substantially after China joined the WTO, rising from 115 billion Yuan in 2002 to 586.6 billion in 2008. The size of these tax rebates is highly significant. In 2006, the total tax rebates for exports received by exporting firms was equivalent to 10 percent of aggregate corporate savings and approximately 14 percent of government tax revenue in the same year (Yang, Zhang and Zhou, 2012). Empirical studies show that duty drawbacks and VAT tax rebates are important in promoting exports in China (Chao, Yu and Yu, 2006; Chen, Mai and Yu, 2006). Admittedly, export tax rebates are generally permitted under the WTO framework, but there are serious issues in its implementation. In a survey covering 55 developing countries, fewer than half of the countries had a legal framework or implementation regulations for their duty drawback schemes, thereby limiting its implementation (e.g., Ianchovichina, 2007). Therefore, the widespread and uniform implementation of tax rebates and duty drawbacks provides a competitive edge for Chinese exports.

The focus of discussion has been on Chinese trade policies so far. Regulations in foreign countries that restrict the export of high-tech and strategic products to China can also significantly affect its trade surplus. As a developing country in need of advanced technology and being the second largest economy and a trading partner of the US, Chinese imports in 15 categories of goods with the highest content of technology are far below the import of the same goods by countries such as Canada, Japan, and Holland. In fact, among the same categories of high-tech goods, the imports of China are below that of India and Mexico (Ju, Ma and Wei, 2011). The limited import results from the explicit export restrictions imposed by the US government or the complicated application and approval procedures. The removal of these restrictions can effectively reduce the trade surplus of China.

Finally, the role of the exchange rate policy is controversial and frequently cited in public debates on the current account surplus of China. Some argue that the pegging of the renminbi to the dollar at a low value is the root cause behind the large trade surplus of China (Krugman, 2009; Ferguson and Schularick, 2009), but disagreements abound (Chinn and Wei, 2008; Song, Storesletten and Zilibotti, 2011). The opponents argue that there is no robust relationship between exchange rate regime flexibility and the current account adjustment; and, what matters is the real exchange rate, which has stayed flat for a long time. Moreover, the renminbi has appreciated by about 25 percent since mid-2005, while the current account surplus of China surged at the same time. Given the analyses presented in the present paper, the exchange rate policy can hardly be the only factor, or even an important one, responsible for the imbalances in China.

9. Options for Policy Reforms

The Chinese economy is strongly affected by policy interventions and structural rigidities. The roots of the policies can be traced to the past institutions and the new growth strategies during globalization and economic transition. These factors emphasize export promotion and have distributional income effects in favor of the corporate and government sectors, as opposed to the households. Each of these policies appears to be rational and innocuous and hardly affect the macroeconomic performance significantly under normal circumstances. However, with the huge external shock of China joining the WTO, the effect of the individual policies was amplified, and the joint effects of policy interactions pushed the internal and external imbalances up to gigantic scales.

A simple explanation for the evolving macroeconomic imbalances in China emerges from the foregoing analysis. With falling trade barriers resulting from being a member of the WTO, the profits coming from Chinese exports and firms expanded dramatically. However, a high percentage of this windfall gain of WTO profits was retained in the corporate sector, which has a high propensity to save, and was collected by the government, who has not adjusted its social welfare spending upward. The result is an unprecedented upsurge in aggregate savings and weak demand for domestic consumption and imported goods. What aggravates the imbalance is a continued rise in household savings induced by structural shifts in the labor market, incomplete social welfare reforms, and demographic changes resulting from China's population control policies. When the ill-functioning financial system fails to channel the increased savings to high-return production investments or consumption loans, the excess savings end up as huge foreign exchange reserves invested in low-yielding US government bonds. These simple facts explain the coexistence of a large savings-investment gap, current account surpluses, and the growing net foreign asset position of China. Although these imbalances are clearly not intended or desirable for China and the rest of the world, the hands of the Chinese government are tied firmly by the entangled policies and institutions. Therefore, China is both the victim and the culprit of its own macroeconomic imbalances.

Mounting pressure exists for rebalancing the Chinese economy. With a framework for understanding the causes of the internal and external imbalances in China, many statements presented in the present paper are based on solid empirical findings. Other statements, however, are new hypotheses that should be scrutinized against data. Assessing quantitatively the relative importance of the contributing factors can help deepen the understanding of the role of policies and institutions in the determination of savings, investment, and current account imbalances. The rich spatial variations across the Chinese provinces and potential international data with variations in policy intervention provide a basis for further empirical investigation. Exploring such variations remains a challenging topic for future research.

Several looming structural changes, such as a lower rate of economic growth and population aging, will likely help reduce the national savings rate in the future. However, the effects of these changes will likely be gradual and modest. Instead, more direct reforms aiming at correcting policy and structural distortions responsible for causing the imbalances are effective policy measures. Since the coordination and timing of the reforms are far more complicated than what this paper can deal with, I simply outline the following broad areas where I believe reforms are warranted.

- Adjustments are needed in income distributions across the corporate, government, and household sectors, as the consumption in China constitutes the lowest fraction of GDP ever recorded in any major economy.

- The removal of subsidies in capital financing and the restoration of land prices to market values can facilitate the determination of enterprise profitability based on sound economic principles.

- Strengthening corporate governance and dividend policies for both SOEs and private enterprises can lower aggregate savings with increased consumption of households and the government.

- The new Labor Contract Law, which lays out the general terms of protecting the basic rights of workers,[8] should be effectively implemented.

- The population control policies should be reviewed in the context of the anticipated rise in the elderly dependency ratio in the next four decades, which will have serious implications in savings and economic growth.

- The government should shift the composition of spending from investment to education, health and selective social programs, and accelerate social welfare reforms. The public expenditure on education as a share of GDP in China is still below the average of developing countries.

- The state-dominated credit systems need to be reformed to channel more of the growing domestic savings toward high-return private investments and consumption-oriented loans.

- Reduction in import duty drawbacks and export tax rebates must be planned. This initiative can help reinstall the right incentives in domestic versus international trade and helps reallocate income across corporate, household, and government sectors.

- The removal of favorable provisions of lowered tax rates, subsidized land prices, and other privileges in special economic zones should be considered to set all firms in the market on an equal competitive footing.

- It is desirable to increase flexibility in the exchange rate of renminbi.

The reforms aimed at removing policy and institutional distortions generally have an effect of killing two birds with one stone. The reforms can reduce the imbalances while improving the efficiency of resource allocation. Moreover, a reform that targets the savings-investment gap will naturally mitigate the current account surplus and vice versa. It has become apparent that the solutions to the macroeconomic imbalances in China require a more sophisticated approach than the conventional method of addressing currency appreciation and expenditure expansion.

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[8] This law took effect on January 1, 2008. The main objective of the law is to deal with the mistreatment of workers arising from asymmetric information and uneven bargaining power between employers and low skilled workers.

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中國的高儲蓄率與外部失衡[1]

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目錄

表

圖

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1. 摘要

過去十年間，中國宏觀經濟內部與外部失衡的程度都創歷史新高。2008年，中國國民儲蓄率升至國內生產總值的53%，而經常帳戶盈餘也達國內生產總值的9%。基於這些觀察，本文提出一個統一的框架解析經濟失衡背後的結構性誘因。這些失衡可歸因於中國經濟中一系列的政策與制度扭曲，而中國加入世界貿易組織更顯著地放大了這些結構性扭曲的影響。中國的人口結構和人口政策也是高儲蓄的一個重要原因。本文分析中國總體儲蓄、投資、貿易和對外資產淨值的趨勢，並探討有助恢復結構平衡的政策選擇。

2. 引言

中國融入世界經濟開啟了國內經濟活動與國際商品、資本流動的緊密連繫。近年來，國民儲蓄率和經常帳戶結餘兩項指標均創歷史新高，正是反映了這種關聯。2008年，中國國民儲蓄率升至國內生產總值(GDP)的53%，而經常帳戶盈餘達GDP的9%。伴隨經常帳戶盈餘和淨資本流入的積累，中國外匯儲蓄也屢創歷史新高，於2011年3月達到3萬億美元，是世界第二大外匯儲備國日本的三倍。

這種不均衡的經濟結構並非理想的狀況。面臨著美元貶值可能帶來的資本損失，與貿易伙伴可能產生的經濟摩擦，及促進國內消費的無能為力，種種潛在風險都使中國憂慮。幾個主要的貿易伙伴也對中國很不滿意，他們的政客和分析員們把其國內企業不如意的表現、就業崗位的減少、甚至近期的金融危機歸咎於中國。固然，這些失衡的狀況涉及國內多個宏觀經濟因素，以及外部經濟體的表現，要準確指出其中的誘因並非易事。儘管大家對於內部失衡和外部關連都有一定程度的關注及認知，目前的學術和政策研究還是主要集中在中國的高儲蓄率或者貿易順差及匯率政策方面[2]。到底是什麼機制導致了這些失衡的狀況，以及應該採取何種政策去解決，目前尚缺乏一致的看法。

本文嘗試提出一個統一的框架，去解析中國內部及外部失衡的共同誘因。我認為異常的高儲蓄率與貿易順差皆可歸因於中國經濟中一系列政策、制度及結構性扭曲。本文的分析從宏觀經濟的恒等式出發：一國之國內儲蓄與投資的差額等於其經常帳戶結餘。在這個框架下，那些影響儲蓄或投資的外生政策和制度變量，同時會對出口或進口產生影響（直接地或通過內生調整），反之亦然。我將闡述，國內一系列的結構因素都系統性地鼓勵儲蓄，其中包括在企業、政府、家庭之間的收入分配，不完善的社會福利改革，及人口控制政策。另一方面，貿易政策也在有力地推動出口，包括出口退稅，特別經濟區域的設立，及匯率政策。而中國在2001年加入世界貿易組織(WTO)更加劇並擴大了這些個別政策的影響，共同把中國的內部與外部失衡推至空前的水平。

以下，我將首先討論中國國際收支平衡表的趨勢，包括經常帳戶結餘及外國資產淨額的顯著變化，和巨額外匯儲蓄的積累。這些趨勢說明了中國是2004年以來全球經濟失衡的重要組成部分。進而我將展示國民儲蓄和投資的相應變化。基於這些特徵事實，本文的主要章節將集中討論導致中國儲蓄投資缺口和貿易順差的結構性因素。最後一章將提出未來研究的方向，並探討有助恢復結構平衡的政策選擇。

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2 Ma 和 Wang(2010)和 Yang, Zhang 和 Zhou(2012)回顧了中國高儲蓄率的問題。參見 Goldstein 和 Lardy(2009)及 Corden(2009)對中國經常帳戶順差及匯率政策的分析。

3. 經常帳戶與資本帳戶的變化趨勢

國際收支平衡表(BOP)記錄在一段時期內一國與所有其他國家間的交易支付。為了分析中國的外部失衡，我將跨國的流量分類為經常帳戶(CA)、外商直接投資(FDI)，資產－投資組合－其他投資帳戶、官方外匯儲備、及統計誤差。基於複式記帳的原理，上述項目加總為零。

中國並不是一直存在嚴重的外部失衡。在中國加入WTO前，經常帳戶結餘在1985至2000年間上下波動，但從未超過GDP的4%（見圖1）。2001年以來，經常帳戶盈餘開始增長，並在2005年加速，時至2007年已經達到GDP的10.1%。雖然盈餘在金融危機期間有所減緩，但至2010年仍維持在GDP的5.2%。鑑於商品及服務的貿易是中國經常帳戶中具主導性的組成部分，在以下的論述中我們將交換使用這兩個術語。

淨資本及金融帳戶的波動趨勢與經常帳戶基本一致。雖然在上世紀九十年代中期錄有盈餘，帳戶結餘在中國加入WTO前保持著平衡的水平。然而，在過去十年間，盈餘急劇上升，並持續推持在較高水平。自九十年代中以來，中國經歷了連續的外商直接投資淨流入，成為美國以外世界第二大外商直接投資接受國。在金融危機之後，外商直接投資和資產－投資組合－其他投資帳戶結餘均保持正值，兩項加總達GDP的4%。

過去十年來經常帳戶和資本帳戶持續的雙順差使外匯儲備大量積累。在2000年，中國的外匯儲備僅為109億美元，相當於GDP的0.91%；到了2004年，該年內的儲備增額就高達GDP的10.7%。在2007年達到佔GDP 13.2%的高峰後，外匯儲備增額在2010年前後徘徊在8%左右。結果，中國外匯儲備在2006年第一次超過1萬億美元，並於2011年6月升至3.2萬億美元，大概是當時日本儲備的三倍。

國際收支平衡表記載著在一段時期內跨境的貿易和資本流動，而國外淨資產(NFA)提供了經濟體對外資產和債務的存量記錄。因此，經常帳戶的順差（逆差）會轉化為國外淨資產的增加（減少）。採用與Lane和Milesi-Ferretti (2007)類似的方法，Ma和Zhou (2009)論述了中國變成世界主要債權國的過程。在僅僅十年間，中國由2000年時的淨債務國（國外淨資產約為當年GDP的6.2%）演變為2010年的淨債權國（約為當年GDP的30.5%）（國家外匯管理局, 2010）。在資產方面，外匯儲備在中國國外淨資產中佔最大份額，達69%。目前，中國的國外淨資產存量為世界第二，僅次於日本。

過去十年間經常帳戶的急升及相應的國外淨資產的積累，使中國成為世界經濟不均衡的主要原因。從表1可見，2000年時中國經常帳戶順差僅為205億美元。然而，到了金融危機前期，中國於2008年已成為世界最大的貸款國，順差高達4,361億美元，相當於全球總順差的24.3%。德國與中國的情況類似，從2000年經常帳戶逆差326億美元迅速反彈到2008年積累順差2,457億美元。中、德兩國的經常帳戶盈餘加總大概等於美國在當年的巨額赤字，約6,889億美元。在金融危機過後，2010年中國依然是世界經常帳戶順差最大的國家。

雙順差的急升和後續的積累讓中國政府猝不及防。第十一個五年規劃的政策目標本來是使經常帳戶在2006年至2010年間恢復均衡，顯然事實並不如人意。與貿易伙伴的關係日趨緊張，美元幣值調整可能帶來的資本損失風險也越來越高。作為增長速度最快的發展中國家，中國的處境尤其特殊，本該用

圖 1 中國國際收支平衡：1985-2010

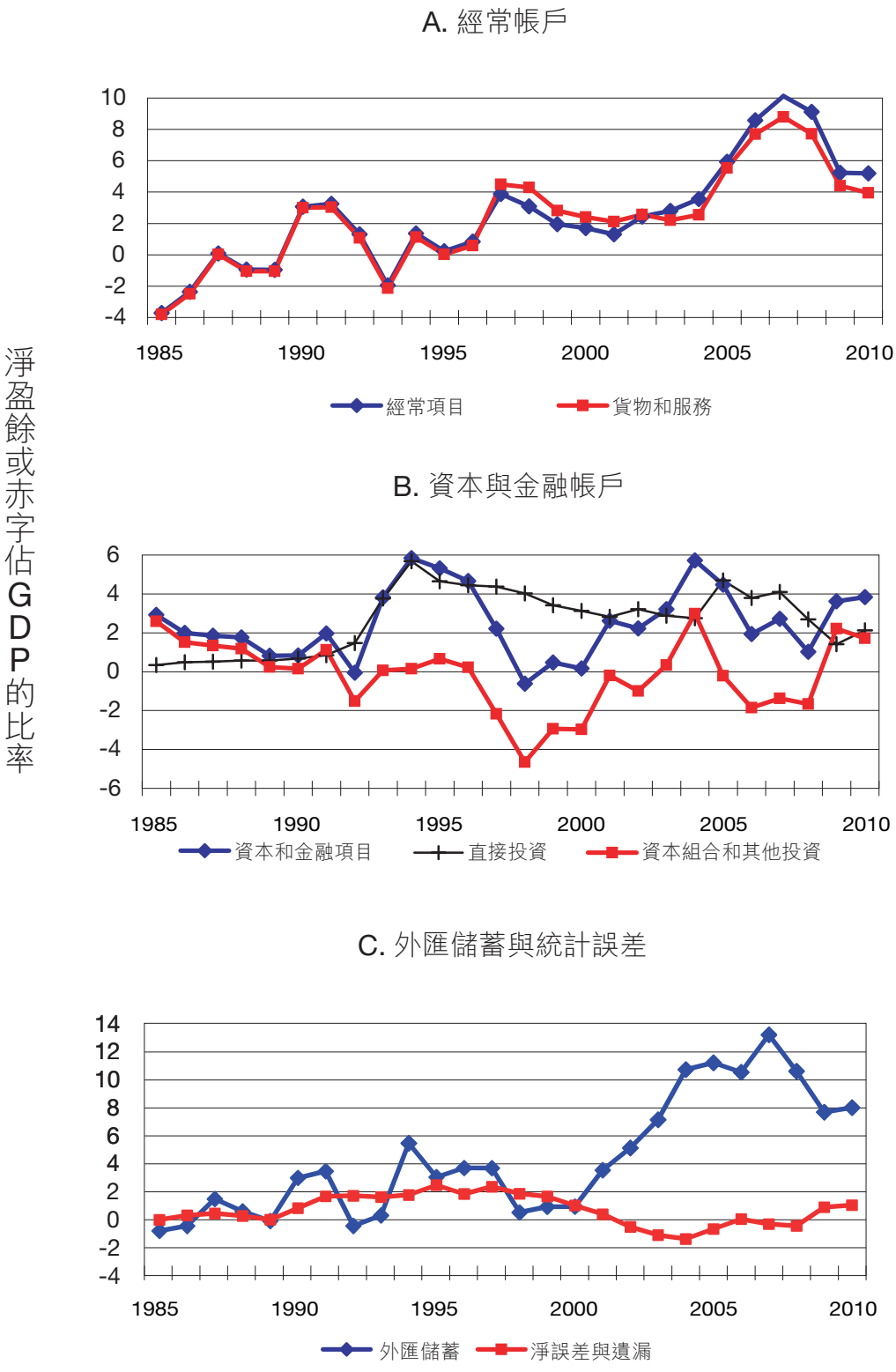

表 1：全球經常帳戶結餘（美元十億）

國家或地區	1995	2000	2005	2008	2010
發達經濟體：	29.8	-270.6	-411.2	-471.8	-95.5
日本	111.4	119.6	165.7	157.1	194.8
美國	-113.6	-416.4	-747.6	-668.9	-470.2
歐元區	70.5	-39.4	41.1	-86.7	11.6
德國	-29.6	-32.6	142.8	245.7	176.1
西班牙	-1.8	-23.1	-83.3	-156.0	-63.3
其他	-38.5	65.6	129.7	126.7	168.4
挪威	5.3	25.3	49.1	79.9	53.3
澳大利亞	-18.4	-15.3	-41.7	-47.2	-31.7
新興及發展中國家	-92.2	95.2	443.0	704.2	378.1
亞洲	-36.9	41.7	167.5	435.9	308.1
中國	1.6	20.5	160.8	436.1	306.2
印度	-5.6	-4.6	-10.3	-24.9	-49.0
中東及北非	-1.2	80.4	212.7	343.1	152.8
撒哈拉沙漠以南非洲	-9.9	2.1	-3.4	0.0	-24.9
拉丁美洲及加勒比海地區	-37.9	-48.4	36.3	-31.2	-56.9
中東歐	-10.2	-28.9	-57.7	-151.3	-76.0
前蘇聯地區	3.8	48.3	87.6	107.7	75.0
統計誤差	-62.4	-175.4	31.8	232.4	282.6

來源：國際貨幣基金會，世界經濟展望數據庫，2011 年 4 月。

於投資國內項目、推動經濟增長的資金卻流到國外，而且這些儲備資產主要都投在了低回報的美國政府債券市場。

基於問題的重要性，許多研究都嘗試找出導致這些失衡狀況的原因。一種普遍的看法是中國政府的外匯干預政策是引起貿易順差的罪魁禍首。經濟學家們也找出其他相關因素，包括金融市場不完善、隨著全球勞動分工深化導致中國的加工貿易越來越多，以及出口導向的經濟發展戰略（例如Yu, 2007；Goldstein 和 Lardy, 2009；Song, Storesletten 和 Zilibotti, 2011）。美國聯邦儲備局主席Bernanke在他關於儲蓄過剩的演說中指出，一個地區儲蓄與投資意願的改變會影響該地區及世界其他國家的外部均衡(Bernanke, 2005)。中國人民銀行行長周小川也強調過高儲蓄率對中國經常帳戶順差的影響(Zhou, 2009)，並詳細列出一個清晰的降低儲蓄率的政策目標。雖然這些研究都認可了儲蓄與經常帳戶結餘的相關性，他們並沒有深入探討高儲蓄率的成因。一個更具挑戰的課題在於分辨到底高儲蓄率是經常帳戶順差的誘因還是結果。

4. 國內與國際關連

通過國民收入恒等式，國內儲蓄可與外部均衡連繫在一起。國民產出(Y)可以分解為一國的各消費項，包括對國內及國外商品與服務的私人消費(C)，政府支出(G)，購買資本品的私人投資(I)，和商品、服務的出口(X)與進口(M)的差額（包括轉移支付）。由於國民儲蓄(S)可視為國內產出中未被私人或政府消費的餘額 (S=Y-C-G)，以下等式刻劃了國民儲蓄，國內資本形成，和經常帳戶之間的關係：

$$S - I = X - M. \qquad (1)$$

這個等式可以理解為：國民產出當中沒有被本國消費或投資的部份一定等於國外對該國的淨購買，也就是經常帳戶結餘。因此，儲蓄與投資的差額就等於對外投資的淨流量。換言之，國民儲蓄中沒有投資在國內的部份被投資在國外。這個等式可以幫助我們闡明導致經濟嚴重失衡的因素。

圖 2 提供了 1992 至 2008 年間中國總儲蓄和投資的變動趨勢。資金流量表(FFA)既反映了儲蓄和投資在家庭、企業和政府間的分配，也體現了這三個部門間的收入和支出[3]。分析資金流量表可以幫助解釋中國國內的經濟活動，以及在貿易及國外淨資產存量變化背後的原因。

資金流量表揭示了中國在儲蓄和投資方面幾個突出的結構性變化，這些變化都與國際收支平衡表數據緊密相連。從圖 2(A)可見，九十年代後期中國儲蓄和投資的變動步調高度一致，然而，從2000年起，當中國開始經歷雙順差，總儲蓄率加速增長，遠高於投資率的增速。初期儲蓄與投資的差距還持續在 GDP 2%-3% 的水平，從 2004 年開始，國民儲蓄便開始高漲，連續5年每年增長約為GDP的2%，與此同時，投資率的增長趨勢明顯減緩並逐漸停留在一個穩定的水平。這種不平衡的增長導致在2005年到2008年期間，也就是金融危機暴發前夕，儲蓄與投資之間出現了巨大的缺口，並相應帶來了高額的經常帳戶順差。

圖2(B)和(C)呈現了在企業、家庭和政府三個部門間更詳盡的儲蓄與投資信息。從2000年到2008年，總投資佔 GDP 份額增長了 8.93%，其中 6.15% 由企業部門拉動。同期，總儲蓄佔 GDP 份額增長了 15.9%，其中來自三個部門的貢獻都很顯著,而且相對平均。儲蓄與投資之間的巨大缺口主要體現在 2004 年以後，投資率平穩在 GDP 的 42%-44%，而儲蓄率卻繼續上揚至歷史新高，在 2008 年達到 GDP 的 53.2%。

內部與外部均衡的等式有助於我們理解國內宏觀經濟變量如何與貿易變量連繫在一起。每一個變量的決定都涉及國內外多個渠道中個人和企業的複雜決策。通過內生機制，決定貿易平衡的個體行為也影響著儲蓄與投資的差額，反之亦然。理論上，經濟狀況的改變會導致等式的任何一方偏離均衡，但相制衡的經濟元素會逐步形成，導致恢復等式平衡的趨勢。那麼到底是哪些系統性因素急劇地引發了中國經濟的失衡？

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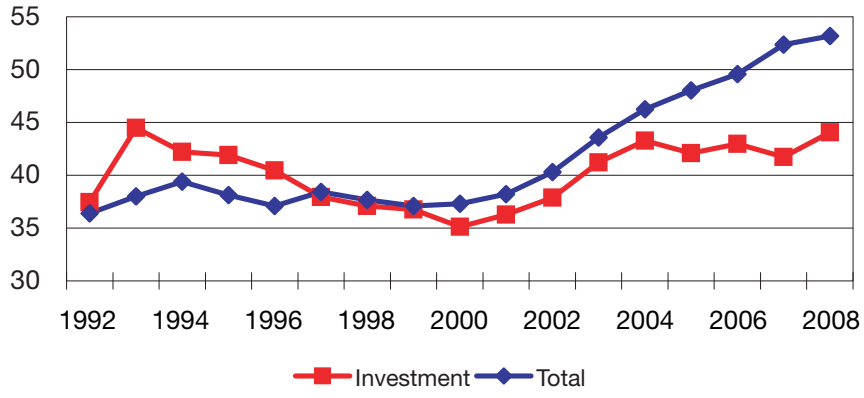
3 1995年，中國國家統計局(NBS)開始發佈基於國民收入核算實物交易的資金流量表，涉及政府、企業和家庭三個部門。由於三年滯後的政策，目前最新的數據是從 1992 年到 2008 年。

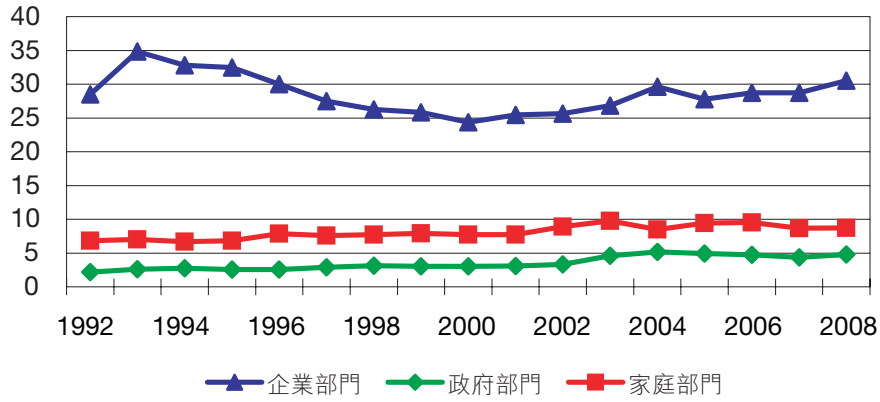
圖 2 中國的儲蓄與投資：1992-2008

A. 總儲蓄率和總投資率

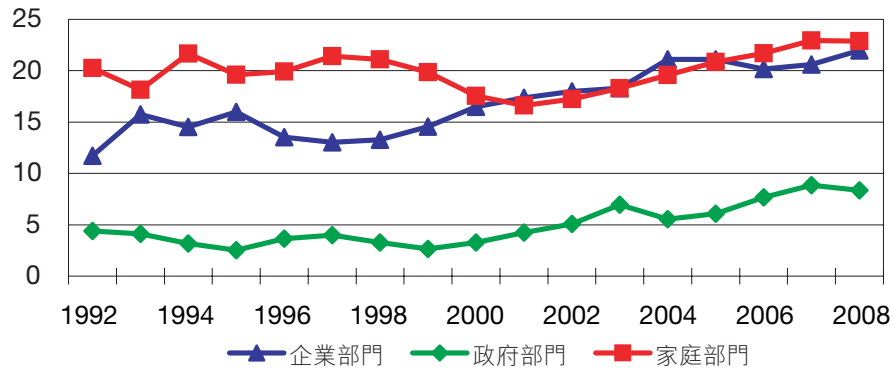


淨盈餘或赤字佔GDP的比率

B. 分部門投資率



C. 分部門儲蓄率



5. 中國經濟失衡的結構性因素

過去十年間，內部與外部失衡的出現都可以歸因於中國經濟中一系列的結構扭曲。一方面，政策和制度在鼓勵儲蓄增長，同時限制對生產能力的過度投資，導致儲蓄超過投資；另一方面，各項出口拉動增長的政策進一步加劇了經常帳戶盈餘。這些結構性因素有的是計劃經濟時代遺留的歷史產物，有的是外生強加於家庭和企業部門的政府政策和法規。有些政策直接影響儲蓄、投資和貿易，有些政策看似不相關，卻通過影響家庭、企業和地方政府的理性行為而導致了經濟失衡。伴隨著中國進入 WTO 和過去十年間一系列的有利發展，這些政策的效應被加倍放大，最終致使中國經濟失衡達到超乎尋常的水平。

6. 儲蓄上升背後的政策與制度因素

在分析具體的政策扭曲之前，有必要記錄企業、家庭和政府三部門的總儲蓄上升的主要來源。國民儲蓄率可以寫成三部門儲蓄率的加權平均值：$s = s_c\pi_c + s_h\pi_h + s_g\pi_g$，這裡權重$\pi$是部門可支配收入佔GDP的份額。為分析儲蓄變化的來源，可將等式兩邊對時間微分，於是得到下式$\dot{s} = \left(\dot{s}_c\pi_c + \dot{s}_h\pi_h + \dot{s}_g\pi_g\right) + \left(s_c\dot{\pi}_c + s_h\dot{\pi}_h + s_g\dot{\pi}_g\right)$。這一等式意味著總儲蓄率隨時間推移所產生的變化可以分解為：(1)來自各部門儲蓄率的變化，(2)各部門收入份額的變化。

資金流量表中的數據被用來分析從2000到2008年儲蓄增加的來源。根據資金流量表，企業儲蓄率等於金融和非金融企業的增加額減去勞動者報酬、生產稅、淨財產支出和淨轉移支付[4]。所以因為企業部門沒有最終消費問題，總的企業儲蓄與該部門的總可支配收入相等，按照定義企業部門的儲蓄傾向為1[5]。與此相反，這一階段家庭的平均儲蓄傾向為32.8%，按照自身的標準來說是高的，但顯著地低於企業的儲蓄傾向。

利用資金流量表的數據進行分解可以幫助我們確定從2000至2008年儲蓄增加的三大主要來源。這些來源包括(a)企業部門可支配收入佔GDP份額的激增，(b)家庭儲蓄率的增加，(c)政府儲蓄率的上升。這一時期企業部門的收入佔GDP的份額上升了5.5個百分點，幾乎完全吸收了家庭收入佔GDP份額下降的5.7個百分點。企業部門的儲蓄傾向為1，所以企業收入份額增加一項拉動了總儲蓄上升5.5個百分點。此外，政府和家庭儲蓄率的增加對總儲蓄率的上升分別貢獻了4.1和7.6個百分點。分解中剩下的三部份即企業部門儲蓄率的變化、政府和家庭部門收入份額的變化在總儲蓄率變化中所起作用的有限或根本沒起作用。

若干結構性因素對中國加入WTO後企業盈利能力的高漲做出了貢獻。上世紀九十年代後期，中國完成了一系列改革，包括發展勞動密集型產業的計劃和放鬆對勞動力流動的限制。此外，為了改善企業治理水平和保持國民經濟的競爭力，中國在九十年代後期針對國有企業實施了大規模的私有化。如此一來，國有部門的就業份額下降、勞動生產率上升，與此同時，競爭壓力的擴散也提高了非國有企業的效率。但是，生產成本的上升並沒有達到侵蝕生產率提升的程度。在更廣泛的意義上來說，不完善的制度改革保留了中央計劃年代高積累戰略的傳統。被壓抑的工資水平、低息貸款以及低土地租金一同增加了企業的可支配收入，也因此給了他們更多儲蓄的機會。儘管扭曲逐漸減少，這些經濟計劃的力量卻延伸到了改革年代。割裂的農村與城市市場意味著大量的非熟練工人可以容易的進入城市以滿足工業發展的需求，這會壓低城市工資增長的速度。此外，國有企業支付貸款與債券的利率明顯低於通行的市場利率。如果國有企業按市場利率進行支付，他們現存的利潤和儲蓄將大為減少（Ferri和Liu, 2010）。

中國加入WTO後，幾項有利因素匯合，伴隨著上面提到的制度性因素，為企業生產率和利潤的增加提供了一個巨大的動力。隨著貿易壁壘和關稅的下降，外部需求的大幅擴張給了中國一個在貿易中實現其潛在比較優勢的機會。持續的外商直接投資

4 更確切的說，淨財產支出包括利息支付、股利和土地租金，而轉移支付包括企業所得稅、社會保險費、社會補貼和社會福利支付。

5 額外的解釋可參見Ma和Wang (2010)及Yang, Zhang和Zhou(2012)。

(FDI)，連同復雜中間投入產品的進口，推動著中國出口攀升。2000到2008年之間，出口增長到了前所未有的每年24.8%（國家統計局，2009）。企業的儲蓄能力反映了他們的盈利能力。1995至1999年間，利潤佔工業增加值比平均為22.6%，2008年這一比例顯著地增加到的34.4%。另一個相關的佐證是企業收入佔GDP的份額從九十年代後半段的14%增加到2008年的22.9%。

如果企業將利潤大量分配給具有更高消費傾向的家庭，利潤的增加並不必然意味著總儲蓄率會上升。可是在中國，企業部門存留了企業利潤增加值中相當大的一部份。Ge和Yang(2012)在他們研究中國工資長期變化趨勢的報告中使用了城市家庭住戶的全國代表性的樣本，他們發現2000年到2007年間平均實際工資每年增長8%左右，這比實際GDP的增長率低了2個百分點。儘管一些股東可以獲得企業紅利，但支付的紅利只佔企業增加值中很小的一部份。雖然分配的紅利有上升的趨勢，但在2007年它佔增加值的比率依舊低於0.5% (Yang, Zhang和Zhou，2012)。部分原因在於，儘管九十年代國有部門重組後，國有企業享有更多的利潤，但直到2008年中國政府才要求它們支付紅利[6]。此外，由於中國法律及金融市場不完善，信貸供給幾乎由國有銀行控制，私有企業有額外的動力去儲蓄。這些國有銀行對國有企業存有偏好，私營企業只能通過內部儲蓄來為它們自己籌措資金(Song, Storesletten和Zilibotti, 2011）。較低的紅利以及投資動力直接轉變為企業部門的高儲蓄率。

如果沒有要素市場的扭曲與結構性僵化，企業增加的利潤很可能成為家庭的可支配收入。有著與企業相比明顯高出很多的消費傾向，家庭會將部份增加的收入用於國內消費上，這樣會降低總儲蓄率。此外，貿易平衡也會間接受到影響，因為消費者很可能增加他們對進口商品的購買。因此，將收入重新分配給家庭通過等式(1)的兩端起到了減少內外失衡的作用。

政府儲蓄率從2000年佔GDP3.28%增加到2008年8.35%，其同樣對中國總體儲蓄率的上升起了作用（圖2）。財政體制和籌集社會保障費對這一結果做出了顯著的貢獻。

政府的可支配收入主要包括政府性生產的增加值、財產收入、各種生產性稅收、所得稅和社會保險收入減去勞動者報酬，其從2000年的18916億增加到2008年的67977億元（國家統計局，2011）。各種生產性稅收的增加是這一階段政府收入增加的最大貢獻者。淨稅收額增加了34428億元，佔到了政府可支配收入增加值中的70.2%。稅收收入上升背後的制度基礎可以追溯到1994年中國的分稅制改革。這一改革試圖扭轉從上世紀八十年代中期開始的國家收入下降的趨勢。改革的目的是促進收入的徵收和使中央政府重新獲得政府總收入的大部份（Wong和Bird，2008）。九十年代早期政府淨收入佔GDP份額是很低的，這一有效的稅收體制使得政府收入於2000到2008年大幅上升，因為這一時期GDP年平均增長率約為10.4%。

政府可支配收入的第二大貢獻因素是淨經常轉移。根據詳盡的資金流量表上的數據，政府於2008年徵收了14898億元的所得稅和13696億元的社會保障費。但是政府只在社會福利支出、社會保險撥款和其他轉移支付中花費了16011億元。結果，政府於2008年在淨轉移支付一項上獲得了12583億元淨收益，與1992年的水平相比增加了11914億元，這佔同期政府可支配收入增加額的19%。總的來說，

6 這些統計量看起來與Zhang (2008)使用1999年到2003年中國企業大樣本數據得到的企業級的統計量一致，該研究中紅利與收入比的均值和中位數分別為0.35和0.16。

生產稅增加額連同轉移支付收入的增加額佔1992至2008年可支配收入增加額中的81%左右。這一發現可以理解為政府在預見到未來數十年將出現老年撫養比率上升後，采取了相應的舉措。

與大幅上漲的49061億元的國家收入相比，政府消費的總增加額37548億元依舊是適中的。結果，政府儲蓄佔GDP的份額從3.3%增加到8.4%。這一事實與被中國大眾媒體廣泛討論的流行觀點「國富民窮」相一致。家庭收入佔GDP的份額由1995-1999年間的平均68%下降到2008年的57.1%是相關的佐證（國家統計局，2009）。儘管這一觀點準確地表述了過去二十年政府收入地位的變化，但中國稅收佔GDP的比重依舊低於日本、德國、美國等主要發達國家。

伴隨著經濟改革與快速的收入增長，過去三十年中國的家庭儲蓄上升迅速。上世紀七十年代後期，家庭的儲蓄只佔GDP的6%到7% (Qian, 1988；Kraay, 2000)，但經歷了自2000年到2008年的持續增長後，到2008年已經增長到22.8%。鑒於家庭部門的重要性，相當多的研究致力於理解家庭的儲蓄決定。早期的一些研究是應用一些經典模型來理解中國，這些模型包括凱恩斯學派(Keynesian)的絕對收入假說、莫迪利安尼－布倫伯格(Modigliani-Brumberg)的生命週期理論和弗里德曼(Friedman)的永久收入假說。更多的近期研究也探究消費習慣的重要性和基於文化背景對儲蓄行為的解釋，這些研究均未提供明確的證據。儘管篇幅的限制不允許我們給這些分析做出一個詳盡的綜述，但總的來說，現在的研究集中討論的是推動過去十年家庭儲蓄上升的主要政策與制度因素。

中國家庭儲蓄行為的一個顯著特徵在於與年齡相關的儲蓄變化。九十年代，年齡儲蓄曲線呈現為相對平坦的駝峰形，這與其他經濟體中典型的年齡儲蓄曲線類似(Modigliani, 1970)。然而, Song和Yang (2010)利用全國性的城市居民入戶調查樣本發現，2007年的儲蓄曲線呈現出巨大的變化。這些變化包括(a)家庭各個年齡段儲蓄率均大幅上升，(b)在整個生命週期中年齡儲蓄線轉變為U形，換言之，與中年相比，青年和老年職工的儲蓄率相對更多。這些儲蓄特徵與Chamon和Prasad (2010)所觀察到的，基於1995至2005年間所取部分省份的數據相一致。這兩個特點對理解中國家庭儲蓄的決定因素提出了挑戰。

Song和Yang (2010)提出了一個家庭模型，並定量地展示出家庭儲蓄的劇增與相應的年齡儲蓄曲線變化是中國兩個結構性變化的結果。第一，分批進入市場的年輕勞動者的收入有大幅度提升，而且伴隨時間推移，年齡收入曲線在過去二十年間變得越加平坦了。這些變化反映了勞動力市場至中央計劃經濟以來的轉型。在中央計劃經濟時期，資歷老的很被看重，獲取到高工資；而到市場經濟體制時期，收入則傾向於富有生產性人力資本的年青一代。第二，社會福利改革不完善，總體養老金替代率，即退休人員的平均養老金佔勞動者平均工資的比例，從九十年代前期的80%左右下降到了2007年的52%-58%。將中國經濟的這些特質加入到一個包含異質性個體的動態優化模型後，研究顯示勞動力市場的結構性變化和養老金供給的下降既可以對近期家庭儲蓄上升做出解釋，也可以解釋生命週期中的U型年齡儲蓄曲線。

中國的人口控制政策及其所導致的人口結構變化會通過兩個途徑影響家庭的儲蓄。首先，由年輕人和老年人組成的非勞動人口會在無收入狀態下消費，他們佔總人口份額的下降會提高家庭儲蓄率。其次，在一個沒有成熟的社會保障體系的發展中國家，子女負責父母的養老。所以孩子是生命週期中儲蓄的有效替代物。基於這些因素Modigliani和

Cao(2004)使用就業人口與包括15歲在內的未成年人的變化來近似人口結構的變化，他們發現1953到2000年間年輕人口撫養比的下降通過「吃飯人變少(less mouth to feed)」和養老保障(old-age security)兩個途徑提高了中國家庭的儲蓄[7]。Ge, Yang 和 Zhang (2012)基於人口普查和城市住戶調查的數據而做的年齡隊列分析提供了相關的佐證。他們發現，年長一些的家庭由於兒女數量減少，不能從孩子那裡得到養老保障，因此提高了家庭儲蓄率。受中國人口政策影響的年輕家庭，由於兄弟姐妹個數減少，他們撫養老人的壓力增大，也因此提高了家庭儲蓄率。

提高婚姻市場競爭力的儲蓄動機是與中國性別比失衡相關的另一個人口因素(Wei和Zhang, 2011)。正像兩位作者所說，傳統的對兒子的偏愛在中國很普遍。鑒於現存的人口控制政策，很多家庭利用廉價的B超技術來探測胎兒的性別進而實施性別選擇性墮胎，導致性別比例的嚴重失調。為了得到潛在的妻子，男性之間存在著激烈的競爭，這激勵有兒子的家庭節約花費積累財富以便於在婚姻市場上佔得先機。基於這一想法，Wei和Zhang使用省級面板數據來檢驗性別比例失衡對家庭儲蓄的影響。他們展示性別比例失衡顯著地提高家庭儲蓄，其中農村儲蓄率增加中的68% 和城市的18% 均來源於性別比例的上升。

最後，教育、醫療和住房供給從公共到私人轉型的不完善促成了家庭儲蓄的上升。若干作者認為，中國落後的金融制度未能通過提供充分的醫療和失業保險來共擔風險，也未能將儲蓄轉變為教育、住房和其他投資的貸款 (例如，Woo, 2008；Chamon和Prasad, 2010)。但是，經濟一旦進入新的穩定狀態，這些因素可能不會有很大的作用，因為某些家庭在處理不利事件時的巨大花費會抵消一些家庭的預防性儲蓄。然而，這些因素在轉型階段依然很重要。Lin, Dinh和Im (2010)同樣調查了金融結構對家庭儲蓄的作用。他們認為中國的制度對於工資增長有抑制作用，這是因為勞動密集型的中小型企業無法從國有銀行佔主導的銀行體系得到充足的貸款。此外，普通老百姓被排除在能與高利潤的國有壟斷和自然資源行業分享利潤的隊伍之外。結果是收入不均或財富集中到富人手中，這影響了家庭儲蓄的上升。

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7 然而，這一時間序列的證據並沒有得到利用樣板數據所做出研究的證實。總的撫養比(Kraay,2000)和年輕人或老人的撫養比（Horioka和Wan, 2007）在跨省研究中對家庭儲蓄都沒有顯著地作用。Chamon 和 Prasad(2010)利用 UHS 的同輩人的數據分析得到相似的結論，即中國人口結構的轉型在解釋儲蓄行為時並不十分有力。

7. 投資增長的制約因素

在中國加入WTO前夕的2000年，總投資率佔GDP的比例位於35%的相對低谷期（圖2）。這一比例是九十年代晚期對投資進行顯著調整的結果，而該時期中國正經歷著通縮和生產能力過剩。但是，2000到2005年之間，投資率隨儲蓄率開始快速攀升，而2005到2008年投資率則盤踞在42%到44%狹窄區間內。儲蓄率的增加超出了平穩的投資率，結果是帶來了嚴重的國內經濟失衡。

政策與結構性僵化對導致儲蓄與投資缺口起了作用。儘管政府可有效地控制投資，它卻很少能控制儲蓄，這正是缺口產生的根本原因。加入WTO後投資環境的改善，帶來了外商直接投資(FDI)和國內投資的高峰。Anderson (2008)的研究顯示， 這些國內投資幾乎都由大型國有企業完成，并集中在金屬、材料、汽車和化學產品等重工業上。這些投資提高了生產能力，替代了相關產品的進口並且隨後開始出口剩餘產品。

中國政府握有控制投資的有效手段。2005年，當中央政府感覺到有必要避免經濟過熱時，國家發展與改革委員會下達指令嚴格控制過度投資的風險，并羅列了禁止進一步擴張的行業，經歷了巨幅擴張的重工業位於這一名單的最前段。自此之後，由於對經濟過熱的恐懼長期存在，中國政府設法將總投資率控制在一個平穩的水平上。

上漲的儲蓄對於一個能將多餘的儲蓄引導到高回報項目上的經濟體來説並非難題，但中國經濟卻缺乏有效的金融體制來完成這一任務。正像Song, Storesletten 和Zilibotti (2011)解釋的，國有銀行基於各種法律與政治問題難以有效地將貸款提供給處於增長中的更有效率的私營企業。不成熟的金融體制阻塞了將多餘的儲蓄轉移到教育、住房和其他家庭類投資的渠道(Woo, 2008)。中國的銀行流動性充裕，最終卻將它們投資在低回報的美國政府債券上。

中國缺少吸引人的投資機會部分原因在於中國政府限制外商直接投資進入某些戰略性的高科技和前沿性的產業。九十年代全資外商企業在中國是受限制或被禁止的，而合資則是被鼓勵的。此政策最主要的目的是創造最大化接觸國外先進技術的機會，這是因為學習成本被認為在企業內部更低。但是Sheng和Yang (2011)展示這樣的政策帶來了相反的結果。當東道國政府放寬所有權結構的限制，同時改善合約的執行力度時，它們會吸引更多的跨國企業轉移先進技術進而增加投資的回報。儘管中國於2001年加入WTO之際放鬆了對所有權結構的限制，但全資外商依舊被禁止進入某些行業。對外商直接投資(FDI)的限制延緩了中國產業升級的進程。

8. 貿易政策

自七十年代後期開始改革開放以來，中國大力貫徹鼓勵出口的政策。為加入 WTO 之前，中國通過關稅、配額和進口許可證等手段實施鼓勵出口并限制進口的政策。在改革初期，政策的主要憂慮是如何避免由於過度借貸和貿易赤字引發的國際收支失衡。為了符合 WTO 成員的要求，中國於九十年代後期逐漸停止執行許多鼓勵出口的戰略，包括引導外商投資企業自求平衡增加出口、貿易特區、放寬外商直接投資企業所有權結構限制、出口退稅和匯率政策。儘管這些政策已於八十年代開始實施，但由於中國於九十年代經常帳戶盈餘從未超過GDP的4%，所以他們的效果並未得到廣泛關注。我將闡述中國加入 WTO 是放大這些出口鼓勵政策對貿易盈餘作用的催化劑，它將貿易盈餘推到了一個驚人的高水平上。

自求平衡、增加出口的策略出於管理跨國企業的法律，它要求外商直接投資企業具有出口導向(Yu, 2007)。1990年版的管理指引手冊明確規定外商企業每年產出中必須有超過50%的產出用於出口。儘管這一明確的限制在2001年版中得到放鬆，但它依舊鼓勵外商直接投資立足於出口導向。在這些規定的作用下，外商投資企業出口佔中國總出口的份額由九十年代的 20% 左右增長到 2009 年的 56%。

八十年代，為了鼓勵出口，中國在沿海城市建立了特殊經濟區域。初見成效後，經濟特區延續到了內地城市。位於這些特區的跨國企業享有各種優惠，包括更好的知識產權保護、更低的 15% 的企業稅率、進口商品免稅、無進口配額、低土地使用成本和頭五年不交財產稅。如果外商企業的產品絕大多數用於出口他們將享有額外的優惠(Wang, 2010)。數據顯示，特殊經濟區經歷了兩次繁榮期。第一個時期為1990-1993年，這一階段經濟特殊區域累計數由 18 個增加到 130 個。第二階段為 1999-2003 年，特區數由139個增加到196個（Sheng和Yang, 2011）。到 2006 年，中國共建有 221 個特殊經濟區。Wang (2010)的研究發現這些經濟特區主要以外商獨資並以出口為導向的工業企業形式來吸引國外直接投資(FDI)。為逐漸放寬對外商投資所有權結構的限制，中國政府一方面擴大允許 FDI 進入行業的種類，另一方面減少限制或禁止 FDI 進入行業的名目（Sheng和Yang, 2011）)。在中國加入WTO後的第二年(2002)和中國政府承諾去除絕大多數對貿易和投資保護的第二年(2007)，鼓勵外商直接投資進入的行業名目都有大幅增加。這些在全國範圍內放寬所有權結構限制的措施擴大了加工貿易量，同時增加了跨國企業的產品種類。

出口退稅是另一項鼓勵出口的貿易政策，這個項目將出口商品中已經支付的中間投入品的關稅和增值稅退回給出口企業。這些政策對國內銷售的商品有歧視，尤其對使用進口中間投入品的商品，這對企業提供了將產品銷往國外的激勵。可想而知，對於同樣的商品，國外購買者通常支付更低的價格。在 1997 年亞洲金融風暴後，為了提高即將加入 WTO 後的中國出口商品的競爭力，中國幾次提高出口退稅，退稅率於 1999 年達到平均 15% 的水平。出口退稅額在中國加入WTO後迅速增加，從2002年的1150億元增加到2008年的5866億元，出口退稅的規模是很大。2006 年，企業收到的總出口退稅額相當於總的企業儲蓄的 10%，也約為這一年政府稅收收入的 14%（Yang, Zhang 和 Zhou, 2012）。實證研究顯示中國的關稅、增值稅退稅對促進出口很重要（Chao, Yu 和 Yu, 2006；Chen, Mai和Yu, 2006）。固然，在WTO框架下出口退稅總的來說是被允許的，但在具體執行上有很多問題。一項涵蓋了55個發展中國家的調查顯示，一半

以上的國家沒有關於退返關稅的法律框架或實施條例（例如，Ianchovichina,2007），因而限制了退稅在這些國家的實施。相比之下，廣泛統一的出口退稅為中國出口商品提供了競爭優勢。

到目前為止，討論集中在中國一方的貿易政策上。外國限制高科技和戰略性產品出口給中國的規定同樣也顯著地影響貿易盈餘。作為一個需要先進技術的發展中國家、世界第二大經濟體和美國的貿易夥伴，中國從美國進口的15種技術含量最高的商品額遠低於加拿大、日本和荷蘭等國家從美國進口的同類產品。事實上，中國進口的同類高科技產品額也低於印度和墨西哥從美國進口的產品額（Ju, Ma 和 Wei, 2011）。有限的進口額源於美國政府設定的明確的出口限制或複雜的申請和審批程序。廢除這些限制可以有效地減少中國的貿易盈餘。

最後，匯率政策所扮演的角色飽受爭議，在關於中國經常帳戶盈餘的公開辯論中經常被提及。一些人認為人民幣低價掛住美元是中國巨大貿易盈餘背後的根本原因（例如，Krugman, 2009；Ferguson 和 Schularick, 2009），但不同意見也大量存在（例如，Chinn 和 Wei, 2008；Song, Storesletten 和 Zilibotti, 2011）。反對者論證靈活的匯率體制與經常帳戶的調整之間沒有顯著的關係，重要的人民幣與美元的實際匯率，而它於很長一段時間內變化不大。此外，2005 年以來人民幣升值了 25% 左右，與此同時中國的經常帳戶盈餘激增。基於本文所給出的分析，匯率政策很難是中國經濟失衡的唯一因素，它甚至不是重要因素。

9. 政策改革建議

中國經濟的運行受到諸多政策干預和僵化結構的影響。政策的根源可以追溯到過去的制度和全球化與經濟轉型中的新增長戰略。這些因素強調出口，同時具有不利於家庭部門而偏向企業和政府部門收入的分配效應。在正常情況下，每一項政策看起來理性無害，很難對宏觀經濟的運行產生顯著影響。但是，隨著中國加入 WTO 這一巨大外部衝擊的出現，每一項政策的作用被放大了，加上政策相互作用產生的聯合效應，內外失衡變得規模龐大。

前面的分析給中國宏觀經濟失衡的演變作出一個簡單的解釋。隨著中國成為 WTO 成員後貿易壁壘的減少，來自中國出口和企業的利潤急劇地增加了。但是，由 WTO 帶來的、相當高比例的意外收益或存留在有很高儲蓄傾向的企業部門，或由政府徵收，而政府並未增加社會福利的支出。其結果是總儲蓄以前所未有的速度急劇增加和對國內商品和進口品需求不足。人口控制政策帶來的人口結構變化引發家庭儲蓄持續上升，連同勞動力市場的結構性轉變和不完善的社會福利制度改革讓失衡更加惡化。當運行不良的金融體制無法將新增儲蓄引導到高回報的生產性投資或消費信貸上時，超額的儲蓄最終轉化成投資在美國政府債券這一低回報的外匯儲備。這些簡單的事實解釋了儲蓄與投資間的巨大缺口、經常帳戶盈餘和中國持有國外淨資產劇增的同時存在。儘管這些失衡明顯不是中國和世界其他地區渴望得到的，但中國政府的手腳卻被這些糾纏不清的政策與制度牢牢地束縛住。因此在宏觀經濟失衡這個問題上，中國既是肇事者也是受害者。

讓中國經濟重返均衡的壓力漸增。在一個用於理解中國內外失衡成因的框架下，本文的很多論述是建立在堅實的實證研究之上的。然而，其他的陳述是應該利用數據仔細檢查的新假設。定量估計相關因素的相對重要性可以加深理解政策與制度對儲蓄、投資和經常帳戶失衡的影響。中國省份之間巨大的區域差異以及國家間政策干預的差異，均可為今後實證研究提供基礎。探究這些差異的成因和後果是一個充滿挑戰的課題。

若干可預期的結構型變化，如較低的經濟增長率和人口老齡化可能會有助於未來國民儲蓄率的下降，但是這些變化的效果可能是漸進而有限的。更有效的政策手段是直接糾正導致失衡的政策與結構性的扭曲。因為協調改革與掌握改革時機的複雜度遠超出了本文可以分析的範疇，我僅簡單地概述我認為需要改革的領域。

- 由於中國的消費佔 GDP 的比例已降到主要經濟體中有歷史記錄的最低水平，企業、政府和家庭部門間的收入分配需要重新調整。

- 去除資本融資上的補貼，讓土地價格回歸到市場水平，將幫助企業把決定盈利的因素建立在合理的經濟原則上。

- 加強國有與私營企業的管治水平與改善紅利分配政策可以降低總儲蓄率，同時增加家庭和政府部門的消費。

- 新的勞動合同法含有保護勞動者基本權利的一般條款，應該認真執行[8]。

[8] 該法規與2008年1月1日生效。這一法規的主要目的是為了處理虐待工人問題。虐待源於雇主與非熟練勞動者之間的信息不對稱和討價還價能力的不均等。

- 因為未來四十年老年撫養比將逐步上升，有必要重新檢視人口控制政策，這將對儲蓄與經濟增長有重要影響。

- 政府應該改變支出結構，增加對教育、醫療和精選社會項目的支出，加速社會福利改革。中國教育的公共支出佔 GDP 的份額依舊低於發展中國家的平均水平。

- 政府佔主導的信用制度需要改革，以便將更多的國內儲蓄引導到高回報的私人投資和消費信貸上。

- 需要制定減少進口關稅退稅和出口退稅的計劃。這可以幫助在國內與國際貿易之間重置正確的激勵，同時有利於企業、家庭和政府部門之間收入的重新分配。

- 應該考慮去除特殊經濟區域享有的低稅率優惠、土地使用價格補貼和其他優惠，從而讓企業在平等的市場競爭中以求生存。

- 應該增加決定人民幣匯率的靈活度。

總而言之，旨在去除政策與制度扭曲的改革具有一石二鳥的效果。改革可以減少失衡，同時改善資源配置的效率。此外，以縮小儲蓄投資缺口為目標的改革會自然地緩和經常帳戶的盈餘，反之亦然。本文的分析顯示，解決中國宏觀經濟失衡需要一個比依賴貨幣升值和擴大支出的傳統手段更加複雜的方案。

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