Economic Rebalancing and Growth: the Japanese experience and China’s prospects

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Abstract

The Chinese growth model has generated domestic imbalances and social problems. The Chinese leadership is aware of the urgency to address these problems and improve the quality of the growth process. Engineering a successful change (ensuring more even distribution of national income, as well as a rebalancing of the economy away from exports and investment and towards domestic consumption), however, is politically and economically difficult as it may be associated with a slow-down in the rate of growth and the Communist Party’s prerogatives. The Japanese experience can help to interpret the current state of China and several insights can be drawn. Japan had to change its growth strategy while preserving high GDP growth at least three times in the past: at the end of the 1960s, when the mobilization of surplus labour was completed; in the mid-1980s, when Japan faced a dramatic appreciation of the yen and liberalized financial flows, moving the economy away from exports; in the 1990s, after the burst of the real estate and stock exchange bubbles. This work addresses whether a parallel between present-China and Japan in the past can be meaningfully made. It considers a long time span for Japan to show that interesting insights can be drawn from various periods of its experience. Short of claiming that China and Japan can be juxtaposed, this contribution takes stock of the Japanese experience to inform the Chinese authorities and those interested in the Chinese economic development. A comparative approach may serve to identify the successful actions and reforms which contributed to make Japan an advanced country after only a few decades from the end of the Second World War and may help to avoid those mistakes that contributed to turn Japan into a stagnating economy.

Key words: Chinese economy, Economic rebalancing, Growth.

JEL Classification: E2, E4, F4, O4

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1. Introduction

The size and the persistence of global current account imbalances have attracted the attention of several economists in the last ten years. Scholars have focused particularly on the US-China unbalanced relationship with a view to identifying the determinants of their large bilateral imbalances and to finding viable solutions to redress them (see, for an overview, Blanchard and Milesi-Ferretti, 2009).

It is hardly disputed that the Chinese macroeconomic policy mix has been crucial to the emergence and development of the imbalances. The Chinese exchange rate against the US dollar has been maintained at an undervalued level to foster China’s exports and to attract FDI (see, among others, Holz, 2008; Rodrik, 2010; McKinnon and Schnabl, 2012; Bonatti and Fracasso, 2013b). To implement such exchange rate regime, China has tightly controlled the international financial flows and accumulated (and sterilized) an impressive amount of foreign exchange rate reserves (see Aizenman and Lee, 2008, 2010; Bonatti and Fracasso, 2013a; Pontines and Yongqiang, 2011; Aizenman et al., 2014). The rapid GDP growth, in turn, has facilitated the mobilization of the Chinese labour force from the rural areas into the most productive sectors of the economy. This symbiotic relationship between China and the US (see Dooley et al., 2003, 2004, 2009; Bonatti and Fracasso, 2012) reflected the different growth strategies in the US and in China: the US one directed to maximize consumption and employment in the service sector, the Chinese one aimed at increasing the size of the country and at promoting the industrialization of the economy (see Hua, 2007; Cai and Du, 2011; Chen and Dao, 2011; Golley and Meng, 2011; Knight et al., 2011; Bonatti and Fracasso, 2013b).

Although successful, the Chinese growth model has generated large domestic imbalances and social problems, such as high income and wealth inequality, uneven access to public services across regions, corruption, misallocation of real, human and financial resources, pollution and environmental stress, and the like. Consumption, in particular households’ consumption and corporate savings have remained, respectively, subdued and high. Industry (especially heavy non sophisticated industry) has been dominating and overcapacity has emerged in some sectors. Economic growth has remained highly dependent on external demand (which is not under direct control of the authorities) and investment (also concentrated in outward oriented sectors and in State-owned enterprises). Moreover, while the financial system has grown in size and has extended its reach, financial repression has remained in place because necessary for the implementation of the growth strategy mentioned above. A wide array of economic and political distortions have altered the allocation of credit and other productive factors, hampering the natural transformation of the economy (see Huang and Tao, 2010; Huang and Wang, 2011; Allen et al., 2012; Brandt et al., 2013; Dorrucci et al., 2013; Du et al., 2014).1

The Chinese leadership is well aware of the urgency to address such weaknesses and to tackle the sources of social tensions in the country. The 11th Five-Year Plan (for the period 2007-2012) already incorporated rebalancing-related provisions and made reference to the concept of a balanced society,  

1This is not to say that China did not improve allocational efficiency over time. Yet, as shown by Brandt et al. (2013); Hsieh and Klenow (2009); Du et al. (2014), a more efficient allocation of the productive factors would have guaranteed larger TFP gains. Moreover, the bulk of within-province distortions is associated with the inefficient distribution of capital between the state and the non-state sectors, which is a signal of non-market-based resource allocation.
echoing the well known objective of building an ‘harmonious society’. The 12th Five-Year Plan reiterated the message (see the account by Casey and Koleski, 2011), which was further strengthened at the 18th Third Plenum of the Chinese Communist Party’s 18 Congress in November 2013. The authorities explicitly recognised the need of a change in the quality of growth to make it more inclusive and balanced and, consistently, they announced a radical, although gradual, shift in the growth strategy. President Xi used the expression ‘New Normal which involves a gradual slow-down in the GDP growth rate, some internal rebalancing and a progressive opening up of the economy.

The creation of a State Security Commission, charged with ensuring social stability from internal and external threats, reveals that the Plenum envisaged the challenges connected with structural transformation. To favor the macroeconomic rebalancing, the market will be attributed greater (“decisive”) role in the allocation of resources and the private and State-controlled entities will gradually compete in an equal playing field. The removal of excessively intrusive interventions by the State is expected to tackle a major source of those distortions determining an imbalanced growth path, a high level of stress for the environment, and a remarkable inequality in the distribution of income and wealth.

Engineering a successful change in the growth model (as advocated since the mid-2000s, for instance, by Blanchard and Giavazzi, 2006; Prasad and Rajan, 2006; Cai, 2012b; Ma et al., 2013; Lee et al., 2013) is however a very difficult undertaking. First, the reform process interests an incredibly large array of issues and policy areas that need to be tackled, ranging from the exchange rate regime to internal migration, from the internationalization of the Renminbi to the fight against corruption. The reform of the fiscal system, for instance, touches upon the changes in the security system and in the local authorities’ evaluation and incentive framework (see Knight, 2014). The land reform has a massive impact on local public finances and, due to the extensive use of land as collateral, on the resilience of financial institutions and leveraged developers, as well as on the corporates’ balance sheets and on the path of urbanization. The likely reform of the household registration system (Hukou) might increase public expenditures and also induce a politically unpalatable redistribution of resources across provinces, as well as between the central and local levels of government. Moreover, the liberalization of financial markets and the removal of the prohibition that local governments issue bonds will change dramatically the political and fiscal relationships between the Finance Ministry and the local authorities, but it will also affect the structure of interest rates, the transmission of monetary policy, and the soundness of localised financial institutions. Even though the authorities cannot but proceed through a piecemeal approach, the links connecting the various segments of the economic and social system make it hard for them to foresee and limit all the externalities and spillovers stemming from individual reforms.

Each reform, moreover, is potentially associated with serious economic and political trade-offs: the authorities face choices among economically incompossible alternatives and are to intervene on path-dependent political and institutional frameworks, thereby challenging entrenched interests and
administrative practices (Li and Zhou, 2005; Breslin, 2011; Dorrucci et al., 2013; Aoki, 2013).²³

For instance, while the official reports and plans claim that public and non-public ownership will be maintained as equally important foundations for economic growth, it remains unclear to what extent the Chinese leadership may tolerate a further expansion of the non-publicly-owned companies and of the private individuals’ initiatives were they encroaching on the privileges and the prerogatives of public entities, thereby reducing the power of the local administrators. Hence, while there is little doubt that the authorities will push for greater efficiency and lower distortions across the board, the pace at which resources and power will be redistributed remains an open issue. In particular, the Chinese Communist Party will oppose any mechanisms imposing systematic constraints on its authority (such as those coming from the establishment of an independent judiciary system to enforce property rights) and it will rather concede what strictly necessary to ensure a transition in which (broadly intended) better living conditions will strengthen its popular legitimation. The fact that President Xi was appointed at the head of a “leading group” in charge of designing and implementing reforms can be read in two contrasting ways: on the one hand, it is a sign of resolve to proceed with rapid, coordinated and uniformly implemented reforms over the entire country; on the other hand, it may reveal the concern for the opposition that such reforms may find in the National Development and Reform Commission and in other (central and local) political bodies.⁴

Finally, a true macroeconomic rebalancing of the economy away from export and investment and towards domestic consumption is complicated by the risk of falling into the so-called ‘middle-income trap’ (see Eichengreen et al., 2013; Bonatti and Fracasso, 2012; Cai, 2012a).⁵ Moreover, insofar as external demand will substantively matter for the overall rate of growth in China, the sustainability of the internal restructuring process will depend on the exogenous pattern of the global economy, on which the Chinese authorities clearly do not have direct control.

Studying the Japanese experience in the past appears particularly useful to those interested in improving their understanding of China’s situation: several insights about both the correct and the incorrect ways of engineering a transition can be drawn from the Japanese history. As China does today, Japan did face the challenge of abandoning its growth strategy and sustaining high GDP growth: in fact, it had to do it three times after the end of the reconstruction period, as I shall argue in the following sections. The first regime switch in Japan can be dated at the end of the 1960s, when the mobilization of surplus labour into the modern sectors of the economy was accomplished; the second one refers to the mid-1980s when Japan was forced to accept a dramatic appreciation of the yen and had to move away from exports towards domestic demand; the third one is the 1990s.

²This is in line with Aoki (2013), who argues that “institutions should be viewed as co-evolving with economic-demographic dynamics rather than determining economic-demographic variables in a unidirectional way” (p. 235).

³Even though it is just an anecdote, a recent episode is worth recalling. According to a People’s Daily report, the party secretary of the Hebei provincial committee of the Party on 26 December 2014 claimed to support the decision to form a disciplinary mechanism to tackle corrupt, but candidly confessed that he was afraid this could have harmed the local economy. Probably because widespread, this kind of considerations has been stigmatized by the Central Commission for Discipline Inspection of the Communist Party.

⁴Either interpretation is consistent with the idea that greater reliance on a market-based approach and economic freedom might be coupled with greater authoritarian approach from the center.

⁵Bosworth (2012) offers a contrarian view to the very idea of middle-income trap, whereas Cai (2012a) provides evidence of the risks ahead for China.
after the burst of the real estate and stock exchange bubbles (a regime switch that, in fact, has not been successfully accomplished).

The specialised press and some scholars (though not all, as I shall maintain in Section 2) tend to envisage present-China in a position similar to the one Japan occupied in the mid-1980s. The tensions between the US and China over the alleged manipulation of the renminbi (and the consequent large current account imbalances) call to mind the ‘Japan Bashing’ period (i.e., the 1980s) when the US confronted Japan over the trade imbalances and the alleged undervaluation of the yen (on this see, among others Ito, 2009; Bown and McCulloch, 2009). In those years, the Japanese authorities were called upon to undertake the liberalization of the financial sector while letting the exchange rate appreciate vis--vis the US dollar and other currencies. It cannot be denied that present-China is characterised by very similar conditions. However, notwithstanding the popularity of the parallel between present-China and Japan in mid-1980s, other interesting insights to inform the Chinese policy-makers can be derived from the analysis of the entire Japanese experience after the reconstruction. As I shall clarify in Section 2, the features of the two Asian economies are indeed so diverse that there is high uncertainty as to what period of the Japanese history should be isolated for conducting a proper parallel with the last 20 years of the Chinese economic development process.

For this reason, the paper starts with Section 2 devoted to an overview of previous comparative works focusing on different time periods of the Japanese history. The paper shall then focus on those economic issues that lie at the core of structural transformation processes occurred in Japan and under way in China. In Section 3 I shall analyse labor mobilization in both countries, an issue connected with urbanization and with the passing of the Lewis turning point. Section 4 shall address the export-driven growth strategy and the rebalancing process connected with a sizeable appreciation of the exchange rate and with internal reallocation of demand (and factors of production) across sectors. Section 5 addresses the evolution of credit and real estate bubbles in Japan and in China as they can be interpreted as natural consequences of a radical rebalancing process and/or the unintended by-products of inappropriate policy and regulatory choices. Section 6 will tackle several issues regarding internal and external financial liberalization, starting with a discussion of the features, roles and consequences of domestic financial repression and capital controls. The internationalization of the yen and of the renminbi will also be touched upon with a view to clarifying to what extent this process can be considered either as an independent policy objective or as part and parcel of the liberalization of the capital account. Section 7 will tackle the development of consumption and saving in Japan and China. The role of State, broadly intended, will be shortly discussed in Section 8. Section 9 will close.

A caveat applies. I do not claim that China’s and Japan’s experiences can be exactly juxtaposed. The countries are profoundly different, both in terms of their political and institutional features, and in relation to the global environment in which their transformation processes take place.6 Nonetheless,

6For instance, China’s relative position in the world economy, due to the sheer size of its population, is relatively larger than Japan in the days of its structural transformation: external demand can hardly continue to be the main source of growth for China. Moreover, as pointed out by Subacchi (2013), China is part of an integrated regional trade area consisting of developed and emerging countries, while Japan in the 1980s was the only advanced economy in a limitedly integrated region.
in this work, I shall try to take stock of the Japanese experience and present the scenarios which China will most likely face. A comparative approach may serve to identify the successful actions and reforms which contributed to make Japan an advanced country after only a few decades from the end of the Second World War and may help the authorities to avoid those policy mistakes that contributed to turn Japan into a stagnating economy.

2. Similar as snowflakes, but unique

A number of scholars compared the development processes in Japan and in China and most studies found commonalities between the two countries. This apparent consensus hides in fact an important source of disagreement, that is the period of the Japanese history that helps the most to interpret the observed and prospective economic development in China.

N’Diaye (2010), for instance, claims that Japan in the 1980s is the correct counterpart of current China as it is in that period that Japan had to move away from an export-driven growth model. Similarly, as argued by Ito (2009), the reaction of the US Congress to the expansion of Chinese exports in the 1990s and 2000s recalls the US campaign against Japan in the 1980s. On the contrary, Fukumoto and Muto (2011) identify in the 1970s the period in which Japan resembles to the current development stage of China: it is in the 1970s that Japan modified its economy by reducing its reliance on investment accumulation (in heavy manufacturing) and started diversifying its economy towards demand of non-durable goods. A third, different, position is that of Minami and Ma (2010) who, by focusing on the approaching to the Lewis turning point, suggest that the 1950s and 1960s are the periods worth looking to draw a parallel with what China has achieved in the 1990s. Finally, as there are signs that a real estate bubble has emerged in present-China (see, for instance, Lee et al., 2013), many observers have argued that the Japanese deleveraging experience in the 1990s (with ‘zombie lending’ and depressed restructuring, as discussed by Caballero et al., 2008; Leigh, 2010; Ueda, 2012a) can inform economic policymaking in China (Schnabl, 2013). For instance, the Japanese experience (Hoshi and Kashyap, 2000; Mora, 2008) shows that it is important for China to curb the real estate and financial euphoric trends which have accompanied the first stages of the process of financial liberalization because this should reduce the likelihood of a massive Japanese-like deleveraging process in the aftermath of the burst of the (alleged) bubbles.

Each of these different takes on what phase of the development process in Japan is most useful to interpret present-China has both pros and cons. It is certainly true that, as argued by Minami and Ma (2010), the absorption of the surplus labor in Japan occurred in the 1950s and 1960s, while in China in the 1990s and 2000s; yet, this was achieved thanks to fairly different growth models. As correctly observed by Fukumoto and Muto (2011), Japan’s catching-up process had a very limited export orientation: while rapid productivity gains and fixed exchange rates under Bretton Woods did improve the price competitiveness of the Japanese products, the massive investment process was characterised by large imports of capital goods which balanced the trade account.

And yet, there are also reasons to disagree with Fukumoto and Muto (2011) who make a parallel between Japan in the 1970s and present-China. Rebalancing growth in Japan in the 1970s required to expand both domestic demand and exported manufacturing products, while China needs now to
boost internal demand and its service sectors. Moreover, although an increase in the share of income accruing to the households occurred in Japan in the 1970s and is expected to materialize in China soon, it is only in China that GDP growth constantly outstripped household income growth and led to a sizeable contraction of the labor share. Finally, the drivers and the features of the evolution of the exchange rate and capital account regimes are very different between the two countries. These differences suggest that the parallel between Japan in the early 1970s and present-China is, at most, partially correct.

This last observation suggests that, in line with N’Diaye (2010), present-China likely shares an economic structure that resembles that of Japan in the first half of the 1980s. By the same token, the challenges that the Chinese leadership faces are similar to those that the Japanese met in the mid-1980s. Still, Japan was then more advanced than what China is today: its rebalancing process away from exports was the second structural change after the mobilization of surplus labor, which in China has instead not been fully achieved yet. Moreover, although both countries implemented capital controls on international financial flows and restrictions on domestic activities, the exact features of the financial and banking systems in present-China and Japan in the early 1980s are fairly different.

Other experts have argued that what occurred to Japan in the second half of the 1980s may be more informative for the Chinese policy-makers. A real estate bubble materialized in Japan while it was both moving away from exports and liberalizing the capital account; a similar phenomenon seems to be ongoing in present-China. Notwithstanding this seeming similarity between the two countries, it should be noted that the renminbi is not overvalued as the yen was in the mid-1980s. In fact, the real estate bubble in China has been fed by the stimulus packages implemented to offset the fall in global demand (at stable exchange rates) whereas the Japanese boom stemmed from the reaction to the fast appreciation of the currency and in the face of expansionary demand in the US. The parallel between the banking and financial systems of the two countries is also controversial. Japan experienced its major banking crisis several years after financial liberalization started in 1979 for the deregulation facilitated the economy’ moving away from external demand at the cost of investment and real estate excesses. On the contrary, China faced serious non-performing loan problems in its major banks in the 1990s, before the deregulation started, and again in the late 2000s after an extraordinary stimulus package was implemented.

These observations (summarized in Table 1) suggest that the very attempt to look at other Asian countries’ experience to inform the reform process in China may seem intuitive, but remains in fact controversial. Accordingly, in this work I shall try neither to draw a conclusive answer as to whether a parallel between Japan and China should be made nor to ascertain what phase of the Japanese economic history to analyse. Rather, I shall consider, one at a time, the most relevant aspects of the structural change ongoing in China and I shall assess to what extent a parallelism with the Japanese historical experience improves our understanding of the Chinese economy and of its prospects.

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7 Fukumoto and Muto (2011) are aware of the limited role played by export growth in Japan until the second half of the 1970s. However, they interpret this as a sign that “the correction of factor cost distortions does not necessarily contribute to the reduction of the external imbalance” (p. 15). Rather, it could be a sign that the proposed parallel between present-China and Japan in the 1970 is not fully appropriate.
### Table 1: Japan - China across decades: a tentative comparison

<table>
<thead>
<tr>
<th>Decade(s)</th>
<th>Japan Description</th>
<th>China Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950s-1960s</td>
<td>Lewis turning point</td>
<td>Labor mobilization; Sources of Growth</td>
</tr>
<tr>
<td>1980s-present</td>
<td>Shift away from exports</td>
<td>Economic and financial development level; Exchange rate policy</td>
</tr>
<tr>
<td>1970s-present</td>
<td>Shift away from investment; Income redistribution</td>
<td>Role of exports</td>
</tr>
<tr>
<td>1980s-present</td>
<td>Credit and real estate excesses; Sectoral rebalancing</td>
<td>Determinants of excesses</td>
</tr>
<tr>
<td>1990s-future(?)</td>
<td>Bubble bust aftermath</td>
<td>Starting point</td>
</tr>
</tbody>
</table>

### 3. Labour force reallocation and the Lewis turning point

The demographic dividend has underpinned the first phase of income growth in all Asian countries. The so-called Kuznets process, whereby income growth is accompanied by the reduction of the share of agricultural employment, started in most Asian economies later than in the Western countries.\(^8\)

This reallocation and the consequent reduction of agricultural employment share, together with the accumulation of capital in the manufacturing sectors and the rapid increase in labour productivity, were the driving forces of the development process in China as well as in most of the other Asian countries (see, for instance, Holz, 2008; Dekle and Vandenbroucke, 2010).

Similar conclusions can be derived by looking at the moment when the mobilization of rural workers towards (urban) market activities started being associated with non-negligible increases in nominal and real wages in the agricultural sector, that is when the so-called Lewis turning point was passed and bargaining wages in all sectors started being determined on the basis of marginal productivity fundamentals.\(^9\)

Japan experienced agricultural surplus until the second half of the 1960s. Since the mid-1950s, the government favored a rapid mobilization of most of the young agricultural labour force, by facilitating migration from the rural areas towards the cities (*Shudan Shushoku*). From the 1960, instead, unemployment fell, labour markets tightened and the relative wages of skilled and unskilled workers reduced the gap (Minami, 1968; Minami and Ma, 2010). From 1955 to the early 1970s, the share of employment in agriculture halved (from just under 40% to 20%), notwithstanding the rapid demographic growth. Unit labour costs started to rise remarkably in the early 1970s, in line with the steady productivity gains enjoyed in the manufacturing sectors.

Although the literature on the Lewis turning point in China is not fully conclusive\(^10\), a consensus

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\(^8\)Even among the Asian countries, the process of labour reallocation across sectors and regions was differentiated over time. According to Aoki (2013), for instance, Chinese inland regions in 2008 could be compared (in terms of income per capita and agricultural employment share) with Korea in the 1980s and Japan in the mid-1950s, whereas Chinese coastal regions in 2008 were closer to Korea in the mid-1980s and Japan in the mid-1970s.

\(^9\)I do not take part in the debate on whether exiting from the Kuznets phase coincides or not with the approaching of the Lewis turning point. For the sake of brevity, I shall posit that they are simultaneous processes. Yet, I acknowledge that the parallel between the two has been questioned, for instance, by Aoki (2013) on the basis of Jorgenson (1961).

\(^10\)See, among others, Holz (2008); Minami and Ma (2010); Chan (2010); Casey and Koleski (2011); Ge and Yang
has emerged on that China passed the Lewis turning point around 2007, thereby stopping exhibiting unlimited labour supply and slow growing (subsistence) wages. Since the mid-2000s, it is argued, China has witnessed higher wages for unskilled workers (Ge and Yang, 2014), persistent labour shortages in certain areas and sectors (as well as shortages of migrant workers, a phenomenon called Mingong Huang), increasing migrant and agricultural wages, and more frequent labour disputes in the most developed areas (also facilitated by new labour-related laws passed in 2008).\(^\text{11}\)

The behaviour of the nominal exchange rate during this transition period is fairly similar in Japan in the 1960s and in China in the 2000s. Japan entered the Bretton Woods fixed exchange rate regime (officially in 1964) with basically the same rate set in 1949 when, as part of the Allied forces’ stabilisation plan, Japan adopted a unified fixed exchange rate of the yen against the US dollar. (I shall come back on the evolution of the Japanese exchange rate regime in Section 4.) This implies that Japan achieved the first structural transformation of its productive and labor structure under a fixed exchange rate regime cum capital controls. Assuming that China reached its Lewis turning point in the second-half of the 2000s, a similar transition processes seems to have taken place also in China.

Against this seemingly similar background, Japan and China in fact exhibit important differences. First, the above mentioned similarity regards only the nominal exchange rate. The Japanese real exchange rate steadily appreciated against the dollar after the early 1960 because domestic inflation constantly exceeded the US one. And this real appreciation was in line with the Balassa-Samuelson hypothesis and with the fact that output growth was driven by massive investment in large enterprises in the manufacturing (tradable) sector.\(^\text{12}\) This situation is not matched in China that preserved a fairly undervalued exchange rate at least until the second half of the 2000s, as indirectly shown also by its large and persistent current account surpluses.

Second, China’s domestic savings have always been extremely high and domestic consumption low: this was not the case of Japan where consumption grew at the same rate of the other components of GDP until the late 1970s. Both manufacturing productivity and wages used to grow fast in Japan (and faster than in the US) and, because of this, various scholars (among which McKinnon, 2006) argued that during the Bretton Woods period Japan followed the so-called Scandinavian Model (which is discussed, for instance, in Barth et al., 2014). Wage growth in China, instead, has always lagged behind productivity growth, and this contributed to preserve Chinese goods’ price competitiveness even in the face of the gradually appreciating nominal exchange rate.

A third difference regards the stage in the development process when the demographic dividend bonus (due to the growing working-age population) ended in the two countries. Although uncertainty looms large on this topics, China approached its Lewis turning point when the demographic dividend went basically to zero. This was not the case of Japan that exploited a positive demographic trend

\(^{11}\) Other factors of production have exhibited similar trends, among which land (Lee et al., 2013) and other strategic resources in limited supply, such as energy, water, minerals.

\(^{12}\) After the reconstruction period which ended around 1955, the Japanese real GDP grew on average at an annual rate of 9.7% whereas the US one grew at 3.6%. The tradable output expanded at more than 13% from 1955 to 1970 (see Imai, 2010, , Table 1).
for a decade even after having reached its Lewis turning point. Indeed, the age distribution in present-China is similar to that in Japan in early 1970s, but its GDP per capita is smaller than the Japanese one in those years.

3.1. The Lewis turning point in China

It is worth acknowledging at this stage that whether or not China reached its Lewis turning point remains a highly disputed issue. According to Minami and Ma (2010), for instance, the labour market in China does not exhibit the traits associated with the demarcation of the Lewis turning point clearly observed in Japan in the 1960s: urban unemployment is still relatively high and relative wages between skilled and unskilled workers have not started closing yet. Moreover, some labour surplus can still be found in some internal rural areas (as the share of workers employed in the agricultural sector was still below 35% in 2012); the prospective relaxation of the restrictions on internal migration might increase the number of unskilled workers able and willing to move towards other areas and occupations.\(^\text{13}\) Similarly, more generous social security provisions for migrant workers in the future will facilitate labour mobilization and contribute to prolong the period in which wage growth for the unskilled workers remains limited.\(^\text{14}\) The Chinese urban labour force employed in the State-owned-enterprises (SOEs) and State-controlled enterprises (SCEs), in addition, is likely to be oversized: once most allocative decisions will start being based on market-based considerations rather than on political grounds, as announced at the Third Plenum of the Chinese Communist Party’s Central Committee in mid-November 2013, a mass of workers could be looking for new occupations. Unless SOE and SCE restructuring will proceed at the same speed at which new job opportunities in other sectors and companies will be created, unemployment in the urban areas may raise because of the greater reliance on the market-based allocational mechanism.\(^\text{15}\)

Although I value these conjectures against the hypothesis that China passed its Lewis turning point for good, I believe that a comparison between present-China and Japan in mid-1960s remains valid. The peculiar features characterising the Chinese labour market (but not the Japanese one fifty years ago) are not compelling evidence that China is far from reaching the Lewis turning point. Some of them, for instance, can be explained with the fact that China developed a relatively capital intensive industrial sector for a country at its stage of development. Furthermore, labour shortages and unemployment can coexist when labor markets are highly segmented (Knight et al., 2011; Ge and Yang, 2011; Chan, 2010). Although some parts of the population which do not participate in the labour market now may eventually join the labor force once various reforms will be implemented and a new set of market-based incentives will be established, this scenario is all but certain. As argued by Cai (2012b), the country is ageing fast and doubts remain how ‘ageing before affluence’ (a process the more likely the longer the Chinese comparative advantage will hinge on relatively low

\(^{13}\)This, in fact, will also depend on the changes in the age structure of the country: as individual labour mobility falls with age (both for lower incentives and greater vulnerability of old workers in the urban areas), a higher average age of the working population may offset more relaxed regulations on internal migration.

\(^{14}\)On the other hand, improved social security services in the rural areas may increase reservation wages and, thus, reduce mobility towards the industrialized areas.

\(^{15}\)The implications of SOE and SCE restructuring should not be over-emphasized. The 18th Plenum committed to address mainly the companies involved in critical areas and did not forecast changes as impacting as those operated in the 1990s.

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labor costs) will influence labor supply and demand. A balanced interpretation of the evidence, thus, allows to conclude that the labour reallocation process in China can hardly continue as it did in the recent past (Cai, 2013). Even if still present, surplus labour in China is doomed to contract soon and this process will accelerate because of the population ageing and the low fertility observed in the last two decades. The disappearance of the demographic dividend soon after the passing of the Lewis turning point indicates that, contrary to what occurred in other Asian economies, China will not be able to sustain its overall growth rate thanks to a favorable demographic structure of the population.

3.2. Lessons for China from the Japanese experience

From this discussion some tentative conclusions can be drawn. The labor mobilization processes in the two countries share a number of common traits. For instance, both China and Japan underwent their structural transformation process up to the Lewis turning point under a fixed exchange rate regime and against a gradual appreciation of the real exchange rate.

This notwithstanding, several differences suggest caution while drawing a parallel between the two experiences. Only in China the currency remained fairly undervalued for a long period, and wage and consumption growth fell short of productivity and GDP growth. These macroeconomic developments are part and parcel of the export-driven growth process in China, a strategy that Japan instead did not embrace in the 1950s and 1960s to drive the mobilization of the labor force from the rural activities. The success of the catching-up process in Japan, in fact, owes to factors other than the massive growth of net exports. For the sake of brevity I limit myself to mention some of these factors: large productivity gains in the tradable sector (achieved also via intense reverse engineering); *sui generis* labor market practices combining elements of flexibility with unions and a long-term-oriented employment system; modern antitrust and competition laws; the co-existence of *keiretsu* business relations, a ‘main bank’ system and long-term credit institutions (able to direct funds to the industries supporting the economic development); government policies supporting the flourishing of business opportunities (such as the Business Rationalization Promotion Act of 1952); and a relatively protective trade policy. Moreover, the extraordinary public expenditures due to the war with Korea contributed to expand internal demand in the early 1950s, at the beginning (rather than at the end, as in the case of China) of the Japanese process of structural transformation.

China in the 1980s and 1990s and Japan in the late 1960s differ also along other important dimensions. Differently from Japan, China almost entirely exploited the positive demographic dividend and the pulling force of buoyant global demand during the process to reach the Lewis turning point. On the contrary, the Japanese economy remained more balanced during the transition and, once reached its Lewis turning point, Japan could expand further thanks to higher exports. The TFP gains achieved in China since 1978 are in large part due to the structural reallocation of the labor force from agricultural to manufacturing activities (Kuijs, 2009) and they cannot be exploited much by present-China. This leaves China with the challenge of establishing new conditions for substituting external demand with domestic demand. While Japan could resort to external demand after having passed the Lewis turning point, this is not a viable option for China that needs to engineer a different way to consolidate its middle-income status and mature to a high-income country (see Cai, 2012a,b).
These observations suggest that the parallel between Japan in the 1950s and 1960s with China in
the 1990s and 2000s (and hence of Japan in the early 1970s and present-China) on the basis of their
approaching the Lewis turning point can be only partially informative and should be handled with
care.

4. Export-led growth, exchange rate and rebalancing.

As previously mentioned, the nominal exchange rate of the yen remained constant from 1949
to the collapse of the Bretton Woods system in 1971. In this period, the Japanese current account
balance was roughly in equilibrium (with positive trade balances and mild oscillations of the overall
current account around zero). Japanese growing exports towards the US and other countries were
matched by higher imports, in particular of primary products and manufactured goods. Thus, also
because of the restrictions on international capital flows, Japanese foreign exchange reserves were
modest: despite increasing in absolute size by a factor of four, they remained a small fraction of the
GDP (less than 3%) throughout the 1960s.

With the collapse of Bretton Woods, the process of structural change in Japan was incepted.
Japan’s trade surplus, in particular with the US, began to grow since the mid-1970s and reached a
pick in the mid-1980s when the Japanese current account surplus was about 4% of the GDP. The
US current account deficits were mainly motivated by the US macroeconomic policy mix, that is an
expansionary public expenditure programme and a restrictive monetary policy undertaken by the
Fed, whose indirect effect was the appreciation of the US currency (Obstfeld, 2009; Ito, 2009).

In the face of a shrinking export sector, US manufacturing lobbies made growing pressures on
the US Administration to twist Japan authorities’ arms. Trade disputes and, more generally, a
rather confrontational relationship between the countries (a situation which became known as ‘Japan
Bashing’) led Japan to establish temporary (voluntary) export restraints on an increasing number
of products (McKinnon and Ohno, 1997), to accept quietly foreign protectionist measures (Bown
and McCulloch, 2009), and to allow the yen to appreciate on a steady basis. In 1985, the US Senate
passed the Gephardt resolution calling for a retaliation of 20% higher tariffs on all Japanese imports if
Japan did not engage in policies to close its trade surplus. Importantly, the US external deficits were
increasingly financed by Japanese savings directed toward the US financial markets: if the United
States were the largest net debtor in the world, Japan was the largest net creditor. In the face of
growing Japanese claims on the US, the US Committee on Foreign Investment was established in
1975 with the intent of monitoring inward FDI. After the surge of capital inflows following the 1985
Plaza accord, in 1988 the US President was also given the power to block any foreign takeover on
the basis of the Committee advice if that operation would represent a threat to national security.

Certainly, the exchange rate did play a key role in this process of expansion of the Japanese export
sectors. Although the yen had appreciated in nominal and real terms against the US dollar right
after the collapse of Bretton Woods, from the 1980 to the 1985 the appreciation trend was reversed. The growth of Japanese exports was almost immediate: net exports accounted for almost 40% of real GDP growth (also because of the simultaneous fiscal consolidation by the Japanese government) and the manufacturing sector (producing tradables) expanded at an average annual rate of 8% (Das, 1993). This trend was facilitated by various transformations occurred in the second half of the 1970s: the reduction in wage growth (probably following the industrial restructuring process put in place as a response to the increasing costs caused by the oil shocks), the particularly intense technological and productivity progress\(^{18}\), and the gradual upgrading of the manufacturing production (towards machinery and higher value-added products). Thus, also thanks to the favorable exchange rate and to the expansionary stance of the US fiscal policy, GDP growth in Japan was mainly export-driven and the US turned out to be the key destination of Japanese goods.

It should be noted that, besides very productive and dynamics exporting and import-competing companies, the Japanese economy included also laggard industries which benefited of government protection (in line with ‘developmentalism’ discussed in Section 8). This was mirrored by a fairly large (and growing) internal price gap between traded and non-traded products. Still, the high rates of growth due to the growing exports masked the inefficiencies in such segments of the Japanese economy.

Also because of ‘Japan Bashing’ and the Plaza accord in September 1985, from late 1985 to 1987 the yen massively appreciated with a 10% gain just in the week following the agreement. Notwithstanding the Louvre agreement to ‘stabilize the depreciation’ of the US dollar, and probably because of the US stock market crash in October 1987, the yen gained further ground from 1988 until 1990.\(^{19}\) Although the degree of under- and over-valuation of the yen (with respect to the US dollar and to the currencies of other trading partners) remains subject to disagreement, most studies concluded that the yen was undervalued by about 20% during the years 1980-85 and remained overvalued by a similar amount (or more) in the second half of the 1980s.\(^{20}\)

Notwithstanding the strength of the yen in the second half of the 1980s, the US pressure to reduce Japanese exports continued: whereas voluntary export restrains in Japan and antidumping procedures in the US characterised the 1970s and the early 1980s, in 1988 the US approved a new trade law (Super 301) that expanded the scope of the unfair trade practices which the US could unilaterally retaliate against. Condescending to limit its export performance, Japan was somehow forced to introduce voluntary import expansion measures so as to ensure greater market access to foreign (i.e., US) producers (McKinnon and Ohno, 1997).

After the Plaza accord, a deep recession materialized but the Japanese economy recovered fast: this was the results of a stimulus package which accompanied some liberalization in the mortgage

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\(^{18}\) Jorgenson and Nomura (2007) find that the productivity gap between the US and Japanese manufacturing sectors, approximately equal to 50% in 1960, was closed by the 1990.

\(^{19}\) Besides calling for the adjustment of the exchange rates, the Louvre Accord called for the G7 countries to implement policies that were in conflict with their domestic objectives. Unsurprisingly, the effects of the Louvre agreement were limited (Hamada and Okada, 2009).

\(^{20}\) The evolution of the Japanese effective exchange rates resembles the dollar-yen nominal exchange rate. However, the real effective rates exhibited a more steady and less intense appreciation in the 1980s. According to Das (1993), the nominal and real effective exchange rate appreciated, respectively, by 58% and 29% during the period 1985-1988.
market (N’Diaye, 2010). Such internal and external changes accelerated the switch of demand (both consumption and investment) toward the non-tradable sectors. Tradable goods prices were at first reduced in the attempt to contain the competitiveness losses caused by the nominal appreciation of the yen. As this was lowering profit margins in export-oriented activities, most enterprises accelerated restructuring so as to cut costs and preserve margins, also exploiting the reduction of imported input costs due to the stronger currency. Nominal value added and operating profits soared in the nontradable sectors, while they declined in the other sectors of the economy (see Das, 1993, for a detailed account). Investment followed these changes and reinforced them, by falling in relative terms in the tradable and manufacturing sectors and raising in the nontradable and non-manufacturing ones (where excess demand had materialized).

Imports increased in nominal and volume terms also because the yen appreciation led to a radical change in the income elasticity of imports (even of intermediate and semi-finished manufactured goods). The current account balance, however, did not worsen much because of a series of factors: the lower oil bill, the limited pass-through in the export sectors (as firms tried to preserve price competitiveness), the efficiency-enhancing restructuring process at the corporate level, the growing share of capital goods and high-value-added products in the bundle of exported goods, and a strong global demand (until 1987) that partially counterbalanced the appreciation of the Japanese currency.

In the face of the slowdown caused by the excessive appreciation of the yen and of the raising frictional unemployment in the transition from external to internal demand, the Japanese monetary policy turned expansionary: all categories of land and real estate appreciated (in turn facilitating collateralised lending by the domestic financial intermediaries) and the stock market index rocketed. Moreover, also due to the financial liberalization process started in the late 1970s, banks replaced their traditional relationship lending with riskier lending to smaller companies mainly oriented toward the internal market, accepting land as collateral (Hoshi and Kashyap, 2000; Watanabe, 2007).

The steady appreciation of the yen in the 1980s impacted profoundly on the structure of the Japanese economy (Das, 1993; Jorgenson and Nomura, 2007; Hamada and Okada, 2009). It encouraged domestic demand, stimulated the Japanese investors’ acquisition of US assets and reduced the profitability of domestic investment in the traditional manufacturing sectors, while it favored the production and export of high-value-added high-tech products. This is in line with the differentiated ability of the enterprises operating in the various manufacturing sectors to reduce (export) prices and costs so as to preserve adequate market share and margins (Schnabl and Baur, 2002; Hamada and Okada, 2009). Importantly, the limited productive investment opportunities in the traditional export sector and the loose monetary policy in Japan caused a rapid increase in speculative investments,

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21While IT-producing industries accounted for 12% of the growth of capital input in 1973-1990, their share moved to 14% in 1990-1995 and to 31% in 1995-2000. The productivity of IT-producing enterprises also expanded (see Jorgenson and Nomura, 2007, Table 2, p. 325). After a relatively short recession, capital and IT equipment spending did increase in the entire manufacturing sector which strived to remain competitive through restructuring.

22The appreciation of the yen forced many companies to reorganize their businesses to lower export prices and preserve profit margins: persistent productivity gaps and different pricing practices between the traded and non-traded sectors characterised the process of adjustment. This scenario, it is worth noticing, was compatible with companies in the tradable sector expecting a prolonged real exchange rate appreciation, in light of the fact that the authorities were committed to limit net export growth and contain US complaints.
both in securities and property markets (Hoshi and Kashyap, 2000; Mora, 2008; Ueda, 2012a). While
this trend set the basis of the subsequent financial crisis, it sustained high growth rates during the
transition period.

4.1. Lessons for China from the Japanese experience

The Japanese experience offers insights which possibly help to interpret the current situation
in China and, in particular, it allows to assess the concerns of those (see, for instance, McKinnon,
2006; McKinnon and Schnabl, 2006, 2014) who fear that the (due) appreciation of the renminbi may
eventually turn into a persistent over-appreciation causing a Japan-like ‘lost decade’ and ‘ever-higher
yuan’ expectations (to paraphrase the so-called ever-higher yen syndrome introduced by McKinnon
and Olmo, 1997).23

While it is certainly appropriate to warn against major policy mistakes on the ground of similar
historical experiences, I would like to point out that Japan in the late 1980s and China in the early
2010s differ along various dimensions. Probably, the main difference is that the Japanese economy
became export-dependent only relatively late, after having accomplished most of its catching-up
process mainly through domestic investments. Incidentally, this made ‘Japan bashing’ intense because
Japan and the US were directly confronting each other on similar industries in their domestic, and also
third, markets. China, instead, approached its Lewis turning point very recently, and its growth has
always been dependent on foreign demand and foreign direct investments. Moreover, China still needs
to make progress along several directions to confront the US on similar industrial grounds: human
capital accumulation, technology and human resources management still lag behind. According to
Koopman et al. (2010), exports in China consist mainly of assembly activities so that the value
added related to exports is smaller than what gross exports suggest; also Upward et al. (2013) find
that domestic value added of exports is low (though on the rise) as they embody mainly unskilled
labour and low-tech inputs. Although the importance of high technology sectors in China has grown
steadily, high-tech exports account for a much lower share than low-tech ones.24

Should this sound reassuring for China? I would argue it should not. These structural di
ferences may entail that an abrupt and large appreciation of the renminbi could have more drastic e
ffects than the revaluation of the yen had in Japan. For instance, the private sector’s reaction to the renminbi
appreciation may be less prompt in China that it was in Japan where a profound restructuring of
the industrial sector took place swiftly (with private investment diverted towards the non-tradable
activities). Hence, growth may contract more and for longer than it did in Japan. Two questions

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23The expectation of a prolonged period of appreciation of the yen would have required a large interest rate differential
between the US and Japan, but the zero lower bound was hit soon. According to most observers, the ZLB trap
marked the beginning of a long period of economic problems and stagnation in Japan, culminated in a deflationary
and zero-interest liquidity trap in the 1990s.

24In fact, the dynamics of production and exports differ. In terms of upstreamness, for instance, production has
typically been higher than exports (due to the large share of assembled exports). After 2002, the sectoral share of
production in the downstream sectors started decreasing while those of midstream and upstream sectors instead
increased. On the contrary, the export share of the upstream sectors remained constant and relatively low, whereas
downstream sectors significantly declined and midstream sector expanded (see Ju and Yu, 2015). This is not to deny
that China has undertaken a process of production upgrading and escalating the value-chain. Although under way,
this process is however neither mature nor widespread (Schott, 2008; Athukorala, 2009; Amiti and Freund, 2010; Xu,
arise from these considerations. Will China be able to react to an abrupt appreciation of the renminbi as fast as Japan did? Will China manage to avoid the excesses that accompanied the structural transformation in Japan, and posed the basis of the crisis in the 1990s?

On the one hand, it could be argued that China does not start from a vantage position. Present-China is at a lower level of development than Japan was in the late 1980s and it faces a deleveraging global environment whereas Japan could at the time count on an expanding global demand. Moreover, due to the abovementioned structure of production, foreign and domestic companies in China can easily move to other low-cost Asian countries rather than restructure, whereas the Japanese companies had fewer opportunities to change localisation at that time. Given the importance of price competitiveness in several of the sectors in which China specialised, the risk of a re-localisation of various Chinese corporates following the abrupt appreciation of the renminbi is high. Moreover, a rapid industrial restructuring in China may be hindered also by other factors that differentiate present-China from Japan in the second half of the 1980s. In particular, the extreme geographical concentration of the export-oriented and labour-intensive manufacturing activities in the coastal areas and in the major cities in China may interfere with the restructuring as an abrupt shift away from export-oriented activities would require to mobilize (again) the very same workers which were first attracted into the modern industries from the rural areas. In addition, the current dimension of the internal market in China (particularly compressed because of the export led strategy) may not be sufficiently large yet for China to rely only on domestic demand to sustain the rates of income growth observed in the past. Finally, as more thoroughly discussed in Section 6, the Chinese financial sector has already accumulated dodgy assets and bad loans in the attempt to preserve high growth in the face of the global recession. An extensive massive industrial reconversion driven by a movement of investment towards domestic-oriented activities would strain further the lending capacity of the Chinese system.

On the other hand, there exist reasons to believe that China could undergo a successful transition. First, although the yen appreciation did contribute to the dismal state of the economy in the last twenty-five years, other features of the Japanese economy contributed to its lost decades. While some excessive growth in the non-tradable sectors is clearly ascribable to the structural change associated with Japan moving away from an export-led growth in the 1970s and early 1980s, the excesses in the real estate and financial sectors, and thus the prolonged stagnation that followed their correction, were due to wrong policy and regulatory measures. Ueda (2011), for instance, argues that “Japan’s poor macroeconomic performance, however, seems to have been due more to the overly expansionary monetary policy of the 1980s that led to the formation of the bubble, and to the inappropriate handling of the bad loan problem generated by the burst of the bubble, than to the appreciation of the yen itself”.

These observations inspire two seemingly contrasting considerations. On the one hand, China should be more wary of excessive exchange rate appreciation because of the potential problems in undertaking the necessary process of industrial restructuring (toward a domestic demand-led growth

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25Ju and Yu (2015) show that underdeveloped provinces host in particular capital-intensive companies in the upstream side of the value chain as the Chinese government (as part of the ‘Third Front Construction’ policy) placed military and heavy manufacturing industries in the inland areas. This implies that absorbing redundant unskilled workers now employed in exporting sectors may be a daunting exercise.
with the same speed and determination exhibited by Japan. On the other hand, should one be convinced that such a massive industrial restructuring process can hardly materialize without also triggering some transition-related excesses, she would conclude that, by adjusting more slowly, China has instead a chance to avoid the boom-bust cycle (and a prolonged stagnation period) that Japan experienced.

What is important to notice, in my view, is that a smoother and slower rebalancing would necessarily come at the cost of a sharp reduction in growth rates during the transition period. The impact of shifting away from investment and external demand cannot be exaggerated and an example helps to picture the problem. After the contraction in the coal industry due to the anti-pollution policies aimed at reducing the use of coal, the city of Taiyuan, in the northern Shanxi province, passed from 12 percent annual growth rate in the first quarter of 2013 to almost zero in the same quarter of 2014. We believe that this trade-off between short-term and long-term growth is indeed the main problem that the Chinese policy-makers face in designing how to rebalance the economy and choosing what policy measures to adopt.

In this regard four lessons can be learnt from the Japanese experience in the second half of the 1980s. First, China should oppose to an abrupt appreciation of the currency but could exploit a moderate appreciation to set in (market-based) incentives to facilitate the mobilization of resources towards productive and efficient domestic sectors. Second, the authorities should not intervene with excessively aggressive measures to boost domestic demand as these could distort, rather than encourage, the desirable re-allocation of resources across the various productive alternatives. Third, the liberalization of the financial sector should be gradual as the authorities could benefit from retaining effective tools to prevent the emergence of financial excesses. Fourth, the external liberalization of the capital account and the increased importance of the renminbi as an international currency have to be consistent with the realization of a successful transition, preventing that the scrambling of off-shore and on-shore positions threatens the process of domestic rebalancing (more on this in Section 6).

Assuming that these four lessons are correct, four conditions for a ‘happy transition’ in China can be derived: gradual appreciation of the currency, limited expansionary policy measures, progressive liberalization of the domestic financial sector, and gradual liberalization of the current account. A natural question to ask is whether China will be able to satisfy these conditions. In what follows I shall discuss why the signals on this regard are still mixed.

5. Real and financial excesses and the rebalancing process

5.1. Rebalancing and bubbles in China

The stock market and real estate bubbles in Japan were, in short, the by-product of both the expansionary monetary policy and the market-driven economic transformation taking place after the abrupt appreciation of the yen. Although China just started its rebalancing process, it appears

\[\text{Clearly, there were cities that managed a successful transition towards new business activities. Shenzhen, for instance, made the best out of the diffusion of internet to overcome the crisis of the manufacturers in the last decade. In case of a nation-wide rebalancing, however, most areas would have to innovate and diversify simultaneously.}\]
already plagued by excesses in the financial and real estate sectors. Does this imply that China already made such serious mistakes that will prevent a ‘happy transition’ process? In what follows, I shall endeavour to argue that this is not necessarily the case even though the economic environment in China is very vulnerable to external shocks, the evolution of the GDP is excessively dependent on the credit cycle, and various political and administrative decisions still influence too heavily the allocation of the resources.

The first thing to notice is that, as China has neither fully liberalized the financial system nor transformed the Chinese economy into a market-based economy (as discussed in Sections 6 and 8), the alleged bubbles mentioned above cannot but depend on the authorities’ decisions and actions. The recent evolution of the Chinese economy, in particular, has been affected by the very large stimulus package put in place to support GDP growth in the face of the contracting global demand after the 2007-2008 crisis: 1.2 trillion yuan worth stimulus plan by the central government and interventions for 2.8 trillion yuan by the local governments. Much of the stimulus was concentrated in infrastructure spending (37%) and Wenchuan post-earthquake reconstruction (25%) that, in turn, was conducive to a considerable increase in central and local debt (Zhang and Barnett, 2014, see for instance). In a context of limited capital account mobility and domestic financial repression, the financing of public expenditures and investment was made possible by the expansion of bank and non-bank credit, declining lending standards and an accommodating monetary policy. It was neither the appreciation of the renminbi (whose ongoing nominal appreciation was, on the contrary, interrupted for a couple of years after the deterioration of global demand in 2008), nor the bonanza in the global financial markets (which were tamed by the Chinese capital controls) that fuelled credit, investment and real estate booms in the most recent years.

Besides the size of the stimulus designed by the central authorities, it is the contribution of the local governments that needs to be considered. The local authorities were called upon by the central ones to implement the national stimulus plan, in line with the general requirement of pursuing locally the objectives set at the central level. All the incentives have been aligned in that direction as the achievement of the goals established in the multiyear plan is a pre-condition for the promotion of local policy-makers. Hence, as local consensus is necessary to preserve political and social stability in a period of economic hardship, both the local and the central authorities were fully committed to implement an as large as possible array of growth-enhancing measures. This came at the cost of a progressive deterioration of public accounts and a worsening of the domestic macroeconomic imbalances.

In particular, the local authorities undertook massive investment plans financed through more than 10,000 local government financing vehicles (LGFVs) with a view to circumventing the legal provisions restricting the issuance of local public debt. LGFVs, also known as Urban Development and Investment Companies, are special purpose arm’s length vehicles which, despite being controlled or owned by local governments, can tap the market and borrow from commercial banks and the

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27 The figures referring to the local stimulus are the official ones and may err, in anything, on the side of caution.
28 Notice that the scenario has recently changes as, due to the 2014 new Budget Law, the provincial-level regions can now borrow under a quota set by the State Council.
China Development Bank. LGFVs receive by local governments both land use (development) rights to pledge and sell so as to obtain the financing necessary to develop the lands (build the projects); given that LGFVs borrow most of their funds from commercial banks, these vehicles did not only allow for the circumvention of the law prohibiting unauthorized local public debt but did also indirectly link local governments with banks’ balance sheets. Accordingly, bank loans have increased rapidly so that a remarkable 15% of the outstanding banks’ corporate loans in 2010 were directed to financing LGFVs. This pattern extended the average duration of bank loans (thereby exacerbating time mismatches in the banks’ balance sheets due to the high reliance of commercial banks on short term deposits), lowered the quality of the banks’ assets, and increased the pro-cyclicality of the entire financial system.

The growing importance of LGFVs as recipients of bank credit is a troublesome state of affairs both for its indirect impact on public finances but also because LGFVs have serious problems of their own. Their balance sheets suffer from quality and temporal mismatches as LFGVs often issue short-term debt only with the purpose of servicing the outstanding long-term projects that do not produce returns in the short run. Moreover, although LGFVs are guaranteed by the controlling local government, the actual value of the guarantees is uncertain as the local authorities have limited fiscal capacity and suffer of large fiscal gaps. Finally, the centrality of land value in the financial mechanism underpinning the functioning of LGFVs exposes these latter (given their limited cash flow) to high operational and liquidity risks. These three features are pre-conditions for a Japanese-style financial crisis: were land values to fall, they would deteriorate banks’ balance sheets, the value of tangible collateral, the returns from real estate activities, and hence the amount of available credit in the economy.

Even abstracting from the weaknesses of the LGFVs, the very same attempt of the Chinese authorities to support growth through massive public investment projects presents various drawbacks (Lee et al., 2013; Lu and Sun, 2013). To start, local governments got indebted for an amount which, according to the official audit launched by the National Audit Office (and released in December 2013), is estimated about 30% of GDP (up from 25% in 2010) in line with the alternative measures of ‘augmented’ local debt proposed by Zhang and Barnett (2014) at the IMF. Also because of the evolution of local public finances, the total public debt grew rapidly and at the end of 2013 it was estimated to be above 50% of the GDP. Clearly, this gross debt finds a counterpart in the infrastructures built in the last few years and, compared with most advanced economies, it could seem at an acceptable level. In fact, the actual value of most new infrastructure depends on the successful development (and urbanization) of various regions and areas, a process which is still under way and that may derail; this casts a shadow on the financial returns of the projects and on the sustainability of the underlying debt. Moreover, contingent liabilities, connected with a set of implicit and explicit

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29 On the detailed features of the Chinese LGFVs, see Lu and Sun (2013).
30 Fiscal gaps, in turn, are due to the obligation to transfer large part of the local revenues to the central government because of a highly asymmetric decentralization of the fiscal system (see Xu, 2011; Jia et al., 2014; Lu and Sun, 2013) and due to the high reliance of local public revenues on land sales (i.e., the sale of land use rights) and on development taxes.
31 According to the State audit, local debt reached Rmb 17.9tn ($2.95tn) by the end of June 2013, up from Rmb10.7tn at the end of 2010.
guarantees offered from the public sector to the private one, are extremely large and difficult to assess: should the events be unfavorable, they would directly turn into higher indebtedness.

Public debt grew fast, but private debt grew even faster. China’s total debt quadrupled from 2007 to mid-2014, especially because of real estate investment. According to McKinsey Global Institute, it reached $28 trillion by mid-2014, that is a debt over GDP ratio equal to 280%. Bank credit expanded very rapidly, at a pace of 30% per year, since the beginning of the crisis in the US. This forced the Chinese monetary authorities to activate almost all the available tools (e.g., official interest rates, reserve requirements, moral suasion and administrative controls) to make sure that credit was sufficient to sustain the stimulus plan, but not excessive. These efforts were initially partially successful because the public control over the broad monetary aggregates is imperfect and incomplete, and credit growth started slowing in the year 2013.

It is not just bank credit that expanded fast after the crisis. Indeed, the impressive expansion of total credit to the real economy can be more easily gauged in terms of total social financing (TSF), capturing all the lending activities to the real economy. TSF refers to the total amount of financing that the real economy can access via the financial sector, including credit not offered by banks.\(^{32}\) In 2012, banking loans went up to 8.2 trillion renminbi, total social finance reached 15.76 trillion; the share of the former in the latter thus passed from more than 90% in the early 2000s to less than 60% in 2012 and about 50% in late 2013. Similarly, while credit to GDP ratio stabilized after a jump in 2009, the ratio of TSF over GDP continued to increase and reached about 180% of GDP in late 2013. Notably, as of mid-2014, China hosted the world’s largest stock of outstanding corporate debt (around 14 trillion US dollars). Aware of the above mentioned problems, the Chinese authorities put in place a series of measures and regulatory reforms to curb the expansion of TSF and of LGFVs: in 2014, TSF declined, by almost 900 billion renminbi, to about 16.5 trillion renminbi.

Although distinct, TSF partially overlaps with another measure of liquidity in the economy, that is shadow banking (i.e. the amount of total credit provided by non-bank institutions). With respect to TSF, shadow banking does not refer only to the financing of real economic activities but covers a larger array of investment opportunities.\(^{33}\) Shadow banking in China is mainly constituted of lending activities run by trust funds and wealth management products and of loans from non-bank financial institutions. Shadow banking activities grew extremely fast in the last years, passing from 140% of GDP in 2008 to more than 200% in 2013 and 2014.

It is evident that the insistence of the local governments on investing in new development projects through easy lending is due to the fact that these projects provide fiscal revenues for the local authorities and create jobs for unskilled workers which cannot find occupation in export-oriented sectors. While effective in offsetting the dire impact of the global crisis on the Chinese economy, this strategy can easily backfire if maintained for too long a period. The excess supply of new properties it has fostered can cause an abrupt downward correction of property prices, in turn triggering a

\(^{32}\)TSF includes loans from trust funds, entrusted loans, corporate bonds and bankers’ acceptance bills (which are off-balance-sheet for banks); but it also regards banks’ off-balance sheet items, non-financial enterprise equity financing, and other funding sources (e.g., insurance, micro lending, industry funds).

\(^{33}\)See Martin (2012) on shadow banking and on the official response to its diffusion and to the Wenzhou underground banking crisis in 2012.
series of bankruptcy avalanches in a self-enforcing vicious circle involving banks, governments and construction industry. Various unintended negative outcomes of such massive debt-financed spurt of investment are already visible in China; in particular, the fall in returns from investment and the expansion of banks’ non-performing loans (Pettis, 2012; Nabar and N’Diaye, 2013). Although it is not fully clear whether China has really over-invested so far (for a number of elements suggest that new investment programmes could still be undertaken in building public infrastructures and in certain industries), overcapacity and non-performing loans are almost undisputed facts.\(^{34}\) It has been often argued that the capital per capita in China is in line with the experience of other countries at the same level of development; while this is true, the ratio of productive capital stock over GDP has been estimated by the OECD to be at 2.6 in 2012, a high value for an emerging economy. Further capital accumulation in infrastructure sectors and inner regions (possibly motivated by social returns and income equalisation concerns) may help to support short-term growth but may have a limited impact in the longer run. As argued by Lee et al. (2013), enhancing capital efficiency and directing investment towards the agricultural and service sectors could be a preferable strategy than adding further capital in infrastructures and manufacturing sectors in inland areas.

It is important to notice that, besides public investment, other factors characterising the Chinese growth model contributed to the increase in the investment intensity of growth. Domestic financial repression (more on this in Section 6) facilitated capital accumulation: lacking alternative forms for allocating savings, housing and real estate property have tilted the allocation of households’ wealth towards these activities. Quotas and restrictions on cross-border investment flows, in turn, have indirectly forced local enterprises to re-invest their own profits in the current activities. Furthermore, the relative low of cost of capital (due to the distortions in factor prices mentioned above), facilitated the debt-financed expansion of investment projects.

Clearly, a successful rebalancing of the economy away from export-led growth requires that capital efficiency is preserved in most areas and sectors: the observed decrease in the Chinese capital efficiency is a signal of inappropriate and of excessive investment.

5.1.1. Lesson for China from the Japanese experience

In line with the spirit of this work, in this Section I explore the lessons the Chinese authorities could draw from the Japanese experience.

According to a benign reading of the Chinese stimulus plan, the accommodative stance of the authorities was not only meant to support growth in the face of a weak international conjuncture but also to facilitate the re-orientation of the economy from exports towards domestic demand. The authorities, in other words, followed a pattern similar to that observed in Japan in the late 1980s after the Plaza accord (N’Diaye, 2010). The decisions of the Third Plenum to implement supportive macroeconomic policies while gradually liberalizing the financial system and making the economy increasingly guided by market-based incentives accord perfectly with what worked well

\(^{34}\)Overcapacity was recognised as a problem already in 2005 but, despite regulatory interventions, it has worsened since then. Capacity utilization in manufacturing has fallen other time and this declining trend accelerated when capital accumulation intensified. Steel, aluminium, plate glass, cement, shipbuilding, and photovoltaic are among the sectors suffering the most as their estimated capacity utilisation in 2013 was about 75% and the share of profits accruing to these sectors is only one fifth of their share in terms of cumulated industrial assets.
during the Japanese transition: “shifting toward a greater reliance on the services sector requires a combination of real effective exchange rate appreciation, macroeconomic policies to support demand, and structural reforms to develop the nontradable sector” (see N'Diaye, 2010, p. 3).

In fact, a much less benign view could be offered on the basis that the Japanese experience in the late 1980s is only partially relevant to interpret the current state of the Chinese economy.

To start, it seems realistic to argue that, with the stimulus plan, the Chinese leadership aimed primarily at boosting aggregate growth and not at facilitating the rebalancing of the domestic economy. Several indicators go in this direction: the role played by local investment programmes, the moderate appreciation of the renminbi, the few measures to ensure a more even distribution of the gains of growth across households, as well as the blind eye turned, for several years, on increasing local debt and banks’ bad loans. Fortunately, as I shall argue below, this trend has changed recently as a more visible rebalancing process seems to have started in 2013 under the incumbent leadership.

Second, China is likely to enter its re-balancing phase already dragged by high public and private debt and with investment overhang problems: this was not the case of Japan that started the transition period with a relative healthy economy. Importantly, the Japanese credit and real estate bubbles in the late 1980s grew out of private sector initiatives and expansionary monetary policy (though in a context of light regulation and forbearance); on the contrary, the observed excesses in China are mainly the outcome of government directives and of the public attempt to prop up certain areas, sectors, and enterprises. To assist the rebalancing process, the Chinese authorities will have to support domestic demand without feeding sectoral imbalances and speculative bubbles, with the view to reducing personal and regional inequalities (Bin, 2015) and to strengthening the social security services (Knight and Wang, 2011; Zhu and Wan, 2012). From their own recent experience, hence, the authorities in China must learn to refrain from pushing public investment too far, whereas from the Japanese experience they can learn to beware of financial markets’ euphoria and excessive lending.

This is why the liberalization of the financial sector is a process of utmost importance. While Japan liberalized its capital account and the domestic financial system in the mid-1980s, and this favored the following excesses, China has only recently started this process and the authorities still retain a number of controls which may help to keep markets in check. The sequence and pace of external and internal financial liberalization in China will have to be carefully designed and implemented with a view to prevent Japanese-style bubbles: a ‘big bang approach’ to financial liberalization may avoid the risk that its implementation ends up captured by vested interests but, given the relatively backward stage of development in China, the abrupt unleashing of financial market forces in China may feed bubbles and excesses. In sum, financial liberalization in China must be gradual and follow the needs of domestic rebalancing (more on this in Section 6).

The Chinese leaders seem aware of these problems. The mini-stimulus realized in mid-2013 and that one announced in March 2014 are limited in size and focused on railway construction, low income

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35 Cull and Xu (2005) found that, even before the recent high credit growth, loans extended by State-owned banks to SOEs had a bailout component. This signals a potential misallocation of credit which dates back to periods that precede the crisis and the policy response to it.
home construction and tax cuts to small enterprises. Monetary policy has become progressively
tighter after 2012 and financial regulation has been toughened so as to rein in total social financing
and curb shadow banking activities. The China Banking Regulatory Commission issued several
measures (regulations and guidelines) to strengthen capital and liquidity requirements and to improve
risk management in the Chinese banks, and to make its supervision on financial intermediation in
general tighter. The Commission has conducted and planned a series of regional and national stress
tests of banking institutions with a view to assessing the impact of various unfavorable situations
(such as a collapse in land and real estate prices). Facing a non-performing loans ratio of 1% for
commercial banks in 2013, in 2014 the Commission also issued severe guidelines to limit excessive
loans to LGFVs and to industries facing overcapacity. Since early 2014, the growth of M2 and credit
in general have slowed considerably to pre-crisis levels. Finally, the new Budget Law in mid-2014
introduced the possibility for the provincial-level regions to borrow under a quota set by the State
Council, thereby lowering their debt through LGFVs.

Moreover, the reaction of the Chinese leadership to the emergence of the alleged credit, debt
and real estate bubbles seems to far more prompt than that of the Japanese authorities. As I shall
discuss in Section 6, several studies found evidence of a progressive improvement in bank lending
practices, regulation and surveillance in China. For instance, the authorities took explicit measures
to prevent the ‘zombie-lending’ phenomenon (which in China would descend from ‘related loans’
associated with non-State-owned enterprises holding ownership in banks, as discussed in Lu et al.
(2012)). The support to joint-stock banks and commercial banks resulted in higher bank competition
and lower credit constraints for the local small enterprises, that can greatly contribute to employment
absorption and structural transformation (Chong et al., 2013). The People’s Bank of China has
repeatedly intervened to rein in credit expansion (though under the constraint of not impairing the
implementation of the State Council’ stimulus plans) and in June and December of 2013 it gave
clear signals, even at the (calculated) risk of incepting a liquidity crisis in the interbank market,
of not being willing to accommodate any credit excesses built on the optimistic expectation of an
implicit ‘central bank put’. Preliminary national accounting data for the year 2014, moreover,

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36 The 2014 programme concentrated on shanty-town renovations (470 million units) for 1 trillion renminbi. Four
railway projects were also approved for 140 billion renminbi.
37 The PBoC’s decision in June 2013 not to provide liquidity in the face of increasing rates in the money market
was of particular relevance for the circumstances in which such tensions in the interbank markets were created. The
Chinese authorities decided to curb hot money inflows (which the PBoC struggled to sterilize) and, contrary to markets’
expectations, chose not to compensate the lower liquidity injected in the economy because of the smaller foreign
currency inflows. Much to the surprise of the largest banks, the PBoC acted consistently with the objective of cracking
down credit expansion.
38 Some pundits interpreted the two episodes in which the benchmark money market rates shot up (respectively, at
circa 11% and 8.5%) after the PBoC’s refusal to inject liquidity as signals that the PBoC lost control on the monetary
system. On the contrary, the PBoC managed to provide clear signals to the Chinese banks without triggering any
systemic problem, also thanks to the new two instruments to manage liquidity introduced in 2013 and 2014, i.e. the
Short-term Liquidity Operations and the Standing Lending Facility. Banks received the message that the PBoC would
not be willing to withhold excessive expansion of credit and debt; moreover, given the increase in their borrowing costs,
they received correct market-based incentives to look for more profitable opportunities and to switch most grey-area
banking activities back to their balance sheets. The large premia materialized in the interbank markets suggest that
this message was well understood: the spikes in the premia were not due to lack of liquidity in the aggregate but,
rather, to the fact that, in the face of a non-accommodating stance of the monetary authorities, the largest banks
started hoarding reserves and withholding interbank loans. Even at this stage the Chinese authorities preserve their
determination to contain money growth as well as to avoid a systemic bank crisis; rather than increasing the supply of
suggest a very healthy contraction in the growth rate of domestic investment, particularly in the manufacturing sector, and an increasing contribution of public and private consumption to GDP growth. The expansion of the tertiary sector has exceeded that of secondary industry every year since 2012, in line with what requires by rebalancing and by keeping the labour force employed. Residential real estate investment growth slowed considerably in 2014, from 20% one year earlier to 9%; this rate, however, remains higher than overall GDP and close to per capita GDP.

These observations suggest that the Chinese leadership has no intention to repeat the mistakes made in Japan in the second half of the 1980s and in the early 1990s. It must be recognised, however, that they face very different challenges. In particular, the Chinese authorities have to design and implement a much wider range of reforms than those Japan had to do in the 1980s. Moreover, the global economic environment does not facilitate the restructuring process in China. More importantly, as argued also in Section 4.1, to preserve social stability the Chinese policymakers must offset the negative effects of global growth slowdown at any cost, even through measures that may aggravate the distortions affecting the Chinese economy and worsen banking institutions’ financial health. Hence, although aware of the importance of the pace and sequencing of the reform process, the Chinese policy-makers do not operate in a vacuum and may be twisted by various political concerns.39

5.2. Bubble bursting and policy reaction

In China no bust has followed the boom yet. Accordingly, no parallel can be made with the Japanese experience in the 1990s. In this Section, however, I would like to focus on the Japanese economy in the aftermath of the burst of the bubble (that can be dated back to December 1989) in the attempt to draw insights which may inform the Chinese policymakers about the risks of inappropriate and counter-productive measures, should the events precipitate.

In late 1988 the Bank of Japan started tightening the interest rates to curb the escalation in real estate and stock exchange prices; the government joined the effort and tightened taxes and regulations so as to discourage further transactions; the yen stopped appreciating. This notwithstanding, the Japanese financial markets did not calm down immediately. In 1990 the government decided to tackle more vigorously the land bubble and the Bank of Japan raised the interest rates further, maintaining them at very high levels for more than another year. Eventually, the Nikkei index started falling and so did the land and real estate prices. The bubble stopped growing but the Japanese authorities

39 A good example of the political problems associated with the reform process is the maintenance of an annual target for GDP growth. Given the expected reduction in the Chinese growth rates and the growing attention attributed to the quality of the economic development, the elimination of the target would represent an important decision. As long as a target officially announced by the President (usually in March each year) will be in place, in fact, the authorities will remained biased towards pushing GDP growth, as their political success would be measured against their ability to meet the target. As argued by Rosen and Bao (2015), however, there are at least three reasons that impede the immediate abandonment of the annual target. First, as a legacy of the planned economy period, various fiscal budgeting lines continue to be based on annual GDP level or growth. Until the fiscal reform will be completed, controlling the budget will require a benchmark. Second, the official target works as yardstick to evaluate whether the economy is operating at potential; this informs businesses, investors, banks and also the PoBC. Third, provincial officials are still judged in terms of their growth results, and their negligence and excessive zeal can be more easily assessed against a benchmark set at the central level.
had then to face the effects of over-borrowing and easy lending in the past: excess capacity in a number of industrial sectors and large stocks of non-performing loans in the Japanese banks were the leftovers of previous bonanza.

Official interest rates were rapidly reduced, but money supply did not expand: the banking sector started a deleveraging process which could not be offset by lower costs of borrowing. This notwithstanding, neither a liquidity crisis in the interbank market nor a widespread credit crunch materialized (Ueda, 2012a). Banking intermediaries initiated what would have become a typical mark of the Japanese economy, that is the roll over of outstanding loans to otherwise insolvent enterprises (see Peek and Rosengren, 2005; Caballero et al., 2008, for a discussion of ‘evergreening’). This phenomenon, called ‘zombie-lending’, contributed to alter various market mechanisms for it weakened banks’ balance sheets, impacted negatively on the economic recovery, and slowed down the process of adjustment.\(^{40}\) The survival of insolvent companies via life-support by banks contributed to depress product prices and to preserve relatively high wages, in turn reducing profits and diverting credit that could have reached new and potentially more productive enterprises. The pervasive misallocation of credit due to ‘zombie-lending’ (a mix of ‘sceloris’ and ‘scrambling’ as Caballero et al., 2008, put it) added to the problem of displaced capital (Gower and Wilson, 2000), on which I shall return in a while.\(^{41}\)

It is important to notice that the government initially tackled the crisis quite mildly and delayed interventions in the financial sector, probably in consideration of job security issues. In particular, as argued by Gower and Wilson (2000), the displacement of financial capital due to the large amount of investment that turned sour in the aftermath of the bubble was not tackled at all. Two effects co-existed: first, new investment was retarded by the reduced willingness of banks to provide loans against any collateral; second, enterprises focused on re-employ some of their displaced capital before proceeding with undertaking new investment. Notwithstanding large government expenditures (which expanded public debt considerably) and a generous monetary policy, the Japanese economy did not emerge from the debris of the crisis. In 1997/1998 the Asian turmoil and the collapse of local banks worsened the situation further, both because of direct losses on foreign assets and because the Japanese banks lost oversea profitable investment opportunities.

In 1997, a medium size securities company (Sanyo Securities) defaulted on call market loans. This event spread panic in the financial markets and, for the first time, money markets tightened: the uncertainty about the real conditions of the financial institutions fed a crisis of confidence which percolated through various sectors. The authorities decided to come to terms with the entrenched financial problems in the country, interrupted the ‘convoy approach’ to resolve banks in distress,

\(^{40}\)Caballero et al. (2008) find evidence that the zombie-lending problem was particularly serious for the companies shielded from international competition and for those operating in sectors linked to ‘bubble’-related assets. Most of these companies were non-manufacturing firms. While in manufacturing the share of zombie enterprises tripled from 3% to 9% (1981-1993 average) to stabilize at 9.58% (1996-2002 average), the ratio increased by more than four times passing from 4.5% to 20% in the construction industry. Various services were hit negatively, as did the real estate sector.

\(^{41}\)As in the recent US and EU financial crises, a massive and widespread deleveraging has negative externalities and tends to incept a negative feedback loop which jeopardizes and prolongs the adjustment process (see Ueda, 2012a, for a throughout discussion).
committed to protect depositors, and in March 1998 tightened the regulatory requirements, thereby imposing banks to carry out in-depth investigations on their assets and to write-off loan losses. Finally, the government started injecting capital into banks in 1998-99 (see, for instance, Ueda, 2012a; Obstfeld, 2009; Watanabe, 2007). Government backstop did arrest the panic, but was not enough to prevent the credit crunch driven by tighter regulatory requirements, bad outstanding loans and dire economic prospects. The recognition and resolution of non-performing loans by most banks (which entailed both large write-offs and tighter lending), as well as debt repayments by solvent non-financial enterprises (whose equity was dented by the stock market crash and whose leverage was therefore on the rise) led to a prolonged deleveraging process in the entire Japanese economy.

The weak financial conditions of most companies in the country were probably the most serious drag on the economy. Other factors, however, contributed to aggravate the situation; in particular, the pre-announced increase in consumption tax in 1997 and the eruption of the Asian crisis that favored the ongoing appreciation of the yen. Moreover, after gaining independence in 1998, the Bank of Japan exhibited an erratic behaviour: it initiated a zero interest rate policy in 1999 associated with the commitment to maintain it until the deflation ends (Ueda, 2012b,a), but in mid-2000 it terminated such policy based on the incorrect judgement that the situation was rapidly improving. This was not the case and, also because of the US stock market crash in 2000, a serious real GDP contraction (almost -3%) and a price deflation (-1%) materialized in 2001 and 2002 (Obstfeld, 2009). Thus, the zero interest rate policy was re-established in 2001 (and it would last until 2006) and the Bank of Japan adopted a policy of quantitative easing through the expansion of banks' excess reserves until the end of the deflationary period. During the entire period 1998-2006 the monetary authorities enlarged the array of assets accepted as collateral for the refinancing operations and implemented targeted purchases of distressed assets (asset-backed securities and asset-backed commercial papers in 2003-2005, equities from banks in 2002-2004, and Japanese government bonds through the entire period) so as to favor portfolio rebalancing and reduce liquidity premia in dysfunctional markets.

The economy and financial services Minister Heizo Takenaka took decisive measures to resolve the bad loan problems by forcing the recognition and the solution of bad assets in the banks' balance sheets. A strategy to force banks to reveal and quickly (i.e., within a three years period after recognition) dispose of NPLs from their books was elaborated. The Resolution and Collection Corporation received new powers to purchase distressed assets, to investigate difficult cases and to regulate the NPL market. Other actions were taken to facilitate the disposal of collateralized loans (with the collateral valued at market prices) and to promote corporate debt restructuring (Ohashi and Singh, 2004).

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42 The Long-Term Credit Bank and the Nippon Credit Bank were nationalized in late 1998 and other banks suffering of the large write-offs were rescued via public money.
43 See Ueda (2012a) on the institutional and economic mechanisms which made the adjustment process slow and prolonged.
44 It could be argued that the depreciation of the yen versus the dollar in the period 1996-1998 impaired the other Asian countries which, by pegging to the dollar, could not stand the worsening of their external competitiveness with respect to Japan (McKinnon and Schnabl, 2014). The Asian crisis, under this light, could be seen not as a merely exogenous event which hit Japan but, rather, as an endogenous phenomenon that reflected the growing imbalances in Asia.
45 For an account of the estimated impact of such extraordinary measures, see Ueda (2012b).
In the late 1990s, when the US was celebrating the fast of the alleged IT-revolution, Japan was in recession, faced deflation, and suffered of a weak and fragile financial system. The problematic features of the Japanese economy could not improve during the 1990s: capital-to-GDP ratio grew further due to the falling GDP and to the intense IT investment in large companies; banks continued to struggle with their bad loans and ‘zombie-lending’ continued; TFP growth remained low. Moreover, the working age population started shrinking, initiating a trend that has never reversed afterwards.

5.2.1. Lessons for China from the Japanese experience

Although one cannot make a parallel between Japan in the 1990s and China for no burst has occurred in China as yet, there are insights from the Japanese experience that may inform the Chinese policy-makers.

The first insight regards the long-term risks of tolerating booms in the real estate and financial sectors for their short-term beneficial effects on growth. So far it has been possible to observe a mixed attitude of the Chinese authorities with respect to real and financial imbalances: they appear aware of the risks of postponing a reaction to the growing imbalances, but they have incentives to turn a blind eye on the excesses as long as they contribute to keep growth high. All in all, it seems that toleration has had the upper hand over prevention until the year 2013. The incumbent leadership has provided several signals of being aware of the risks ahead and it delivered a series of measures and reforms to strengthen the control on real estate, public debt, and credit growth. This is an encouraging sign as the Japanese history suggests that belated corrective interventions in the aftermath of the burst may not be successful and that pre-emptive measures are to be preferred. Notwithstanding, as preserving high rates of growth in China may become more and more difficult, the authorities will continue to be torn between tackling excesses and feeding growth.

The Japanese economic history could come of hand also in the case the Chinese excesses were proved to be unsustainable. It shows that failing to fix the regulatory and monitoring system during a crisis may prolong the problems even though a milder response could allow to preserve those concessions and advantages upon which political consensus is built. In China the pervasiveness of vested interests, the high stakes of the State in banks and companies, and the fragile shape of local public finances indicate that, even in the face of a serious crisis, the leadership could struggle to tackle the very sources of the regulatory problems. This would be a serious mistake: in Japan, the timid reaction of the authorities contributed to lengthen the adjustment process.

The Japanese experience may teach a third lesson to the Chinese authorities with regard to the importance of strengthening market-based incentives in the financial sector. Several scholars and policy advisors strongly advocated the removal of all non-market-based incentives in the financial sector in China: this reform, their argument goes, would be an essential step to tame the forces that underpin the excesses and slow the rebalancing. Indeed, notwithstanding some genuine progress in the transformation of the financial system, financial institutions in China are still required to align their activities along with national economic policy and governmental instructions. It follows that,

46 The average annual growth rate of per capita GDP was 0.5% during the period 1991-2000, that is one fifth of the US one.
by upholding the governmental stimulus plan, Chinese banks directly contributed to the distorted allocation of the resources, fed the excesses in the real estate sectors and favored the surge in the local public debt. This is certainly a plausible argument in favor of incepting a process of financial deregulation and it adds to the other reasons explored in Section 6. Yet, financial markets neither self-regulate nor self-contain. As the Japanese experience, as well as the recent financial turmoil in the US and in the Euro area, show, too little regulation may be as destabilizing as excessive regulation. Therefore, it appears a sensible strategy for the Chinese authorities to preserve some moderate governmental control over the financial sector during the adjustment process: this could help to contain destabilizing ‘animal spirits’ and prevent that speculative excesses accompany the accommodative macroeconomic policies supporting the economic rebalancing.

This does not suggest the existence of an irresolvable tension between the much needed financial liberalization in China and the maintenance of stability-related administrative controls on most financial institutions. As the Japanese experience teaches, in fact, what matters is the quality of the regulation and of the monitoring practices during the liberalization phase. Notwithstanding the inevitable retreat of the State from the allocation of credit, the Chinese authorities will still be required to exercise very delicate regulatory and surveillance tasks, facing the political costs descending from their decisions. Hence, contrary to the optimistic plans put forward by the Third Plenum of the Chinese Communist Party, the People’s Bank of China and the China Banking Regulatory Commission, I believe that the financial liberalization process will proceed through a sequence of limited and localised trials and errors (such as the Shanghai free trade zone, which despite the hype will remain quite isolated from the rest of the country): neither a “big-bang” liberalization, nor the maintenance of the status quo are likely scenarios.

6. Financial repression and financial liberalization

Although I touched upon financial liberalization in the Section 5.2 to address its relationship with financial excesses and structural change, in this Section I shall focus on the other reasons why financial repression (and lack thereof) matters for economic rebalancing and the structural transformation of the economy.

6.1. Financial liberalisation in Japan

Until the 1980s, Japan maintained strict controls on the capital account and on the domestic financial sector. According to Tavlas and Ozeki (1992) and Takeda and Turner (1992), the Japanese authorities controlled the quantity and the distribution of credit, influenced the interest rates (kept below market clearing level), favored self-financed investment, restricted foreign operations in yen and, more generally, the domestic system was insulated from influences from abroad.47 The securities markets were quite underdeveloped and, until the early 1980s, indirect finance (especially bank intermediation) accounted for most of the financial transactions in Japan. The banking system, in

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47 This, along with local currency pricing by the exporters and US dollar invoicing of imports, contributed to prevent the emergence of the yen as an international currency for long time. More on this in following Sections.
turn, was highly segmented with ordinary (city and regional) banks making short-term loans against
the collection of deposits, and long-term and trust banks financing pluri-annual investment plans.

Domestic financial repression was somehow purposefully preserved to channel local (limited)
savings into the industrial (rather than household) sector. The exchange rate objectives and the
annual balances of the current account were crucial in determining the intensity of the restrictions
on international private capital flows (and in particular limitations on the outflow were repeatedly
relaxed when this was useful to reduce the accumulation of foreign reserves, as shown by Takeda
and Turner, 1992). Regulation in Japan was mainly devoted to insulate the economy and ensure the
smooth financing of the activities considered important for the expansion of the economy (see Cargill,
1985, who also reports the views of those objecting to such reading of the pre-reform financial system
in Japan).

This financial arrangement worked quite well during the period of high growth, that is up to the
mid-1970s. Most of the conditions necessary to make an interventionist model successful were met:
high household savings, a political consensus on the overwhelming benefits of financial repression,
steadily expanding outward-oriented sectors, and rapid income growth (Cargill and Parker, 2001).

Once growth slowed and the capital-to-GDP ratio increased to a high level, the modernization and
opening up of the financial system appeared as a necessary step in the (second) rebalancing of the
Japanese economy. Since the mid-1970s, moreover, the increase in public deficit and the decrease in
private investment changed the saving/investment balances across the sectors of the economy: once
the outstanding stock of public debt reached a sufficiently large size, banks (that were playing the
leading role in the underwriting syndicates) threatened to discontinue the accumulation of government
bonds and asked for the creation of a liquid bond market. The Japanese authorities gave in and
created a secondary market for the government public bonds. This freed banks from their role of
captive buyers of the public debt. The introduction of the secondary government bond market led to
a series of important transformations: it forced the convergence of primary interest rates towards the
secondary bond market rates, sustained the repurchase agreements underpinning the gensaki market,
and expanded the securities markets (which were still little developed for the private sector’s reliance
on self-financing and banking loans).

On the international side, the removal of capital account restrictions started in 1980 with the
Foreign Exchange and Trade Control Law. The underlying principle was to consider free all exchanges
unless differently specified. In 1984 the requirement that foreign exchange dealings were backed
by import payment needs (i.e., the real demand principle) was removed. De facto, this approach
permitted the authorities to preserve some control, through approval and authorization procedures,
on a number of financial operations run by foreigners in yen in Japan. The liberalization started
with the promotion of foreign borrowing in yen and many Japanese corporations issued bonds abroad.

48 Some economists have written against the simplistic interpretation of financial regulation in Japan during the
1970s as a means exclusively directed to the objective of accelerating growth. Most direct government financing, is
argued, was channelled towards slow growing industries (such as mining, agriculture, transportation). While I might
risk mis-interpreting the degree of ‘developmentalism’ in Japan (more in Section 8,) I believe that one should be careful
not to underestimate the role played by the authorities through regulation and coordination of the economic activity in
propelling growth. Poor financial disclosure requirements had been, for instance, part and parcel of a financial system
intentionally shielded from competition and functioning on the basis of certain non-market-based incentives.
to escape domestic regulations on bond issuance. This was the first factor that led most of the domestically regulated Japanese banks to shift financing from the large business groups with which they had very long-term relationships towards smaller, newer and riskier companies. The other factor was the lopsided nature of the domestic liberalization, which was expanding the ways in which traditional banks’ borrowers could cover their financing needs but was not giving savers more opportunities to diversify their portfolios (Hoshi and Kashyap, 2000). In a period of expansionary monetary policy (following the appreciation of the currency in 1985), this situation led to an increase in the funds available to the banks, up to the point that after the liberalization of the deposit rates these fell (N’Diaye, 2010; Hoshi and Kashyap, 2000) instead of raising.  

The regulations on the issuance of yen-denominated securities by residents and non residents in Euro-markets, on the issuance of euro-yen certificates of deposits, and on the euro-yen lending to Japanese residents were eased (though with limited results). A larger group of foreign investors was also allowed to invest directly in the Japanese securities markets (see N’Diaye, 2010, for a list of measures). The progressive relaxation of the restrictions allowed the emergence in 1986 of an offshore market in Tokyo, where banks could freely accept deposits from foreigners without abiding by the requirements and regulations applicable to domestic deposits. What is most noteworthy is that part of the incoming capital was not directed to finance local companies: in fact, in the second half of the 1980s, Japan exported long-term capital to an extent that exceeded its current account surpluses, and the difference was matched by short-term borrowing from abroad. Japanese banks were collecting foreign dollar deposits (or foreign dollar interbank loans), and were lending to local residents willing to acquire international assets through Japanese securities houses. The largest Japanese corporations, in turn, started borrowing heavily in foreign currency directly in foreign markets, with the objective of lowering the incidence of their traditional bank-based local financing.

According to Takeda and Turner (1992), the Japanese net long-term assets were about $632bn in 1990 and the short-term net assets at -304 billion of dollars. This made Japan acting as an international intermediary in US dollars, given the limited operation in yen outside the country.  

It is worth stressing that it was not the foreigners that tapped the Japanese abundant savings, thereby drawing ample liquidity and exporting capital abroad, as one could have expected: the Japanese corporations and banks were responsible for the imbalances in the financial account of the balance of payments.  

Notwithstanding the first waves of reforms, the regulatory system in Japan remained characterised by a number of problems, among which: implicit and explicit government guarantees to banks and companies, limited competition in the financial sector and an asymmetric liberalization with

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49 The free determination of the rates on large-denomination certificates of deposit was introduced with the financial reform, although these debt instruments did not have actual competitors until the late 1980s, as non-financial firms and the Treasury could not issue bills and notes of the same maturity (McKinnon and Ohno, 1997). The minimum size of certificates of deposits was reduced in the early 1980s and the restrictions on secondary market activities for banks were also lowered. Interest rates on time deposits were gradually liberalized starting in mid-1980s: the authorities at first focused on large time deposits of more than 1 billion yen, and then extended the liberalization to those more than 100 million yen.

50 This role reversed in the following years when Japan (after a large repatriation of funds in 1991) recorded both short-term (due to the mobilization of Euro-dollar deposits) and long-term capital outflows.
respect to the asset and liability sides of the banks' balance sheets. Moreover, the liberalization of certain activities for certain investors created distorted incentives and led to various attempts by the local investors to circumvent the remaining regulatory restrictions. With the introduction of commercial paper in 1987, for instance, corporations borrowed more through these instruments and deposited such sums at the banks because deposit rates were artificially kept above the average rate of commercial paper. This made the level of debt and deposits grow and put further stress on the commercial banks. Banks were highly restricted in their non-lending activities, received very large deposits and faced reduced lending opportunities to large corporations: in the late 1980s, they started extending larger loans to small companies (especially in the real estate and service sectors), as well as to households and other specialised finance institutions engaged (again thanks to lower regulatory requirements) in heavy real estate lending.\textsuperscript{51} This phenomenon, as anticipated, contributed to the build-up of the domestic bubbles in the real estate and in other non-tradable sectors in the second half of the 1980s.

The Japanese experience shows that an incomplete financial reform ended up putting pressure on certain institutions and alters dramatically the transmission of monetary policy. A continuous liberalization at the margin eroded market segmentation and relaxed the strength of the administrative controls, but it did not improve either competition in the sector or the transparency and efficiency of the overall financial system. For instance, once the Japanese financial institutions became less restricted in their activities abroad than at home, they used all opportunities to circumvent national restrictions. By the same token, commercial banks used interest rate swaps for long-term borrowing, an activity that only the securities companies in Japan were permitted to undertake at the time. Moreover, reacting to the outcomes of their interventions and to the requests from the powerful domestic lobbies in the sector, the Japanese regulatory authorities started relaxing various domestic restrictions without following a good strategy, thereby losing grip on the overall system. This was for instance the case with the realization of a dual structure of the Japanese interest rates (Takeda and Turner, 1992), where regulated rates coexisted with (and were linked to) free on-shore and off-shore interest rates. The new set-up altered the mechanism through which the regulated rates were set, and, contrary to what initially expected, the regulated rate started following, rather than leading, the free rates.

A second wave of (big-bang) reforms to liberalize the financial sector were undertaken in the late 1990s with a view to establishing financial holding companies, reducing the restrictions on individual investment overseas, easing rules on a number of sophisticated products, increasing competition in the banking and insurance realms, and the like. In sum, these reforms were aimed to make the Japanese financial sector more similar to the US one, able to intermediate more funds and to expand its reach abroad. I am not interested in these very recent developments of the Japanese financial sectors as the focus here is on the financial reforms that accompanied the structural transformation

\textsuperscript{51}According to Takeda and Turner (1992), in the city banks’ the ratio of the loans to small and medium-sized firms over the total outstanding loans grew from 45% in the early 1980s to 70% in 1990. Personal debt grew from 68% of disposable income in 1985 to 92% in 1989 and most of the funds went into housing and land purchases. This notwithstanding, the household sector continued to cumulate net savings (benefiting also of the positive real interest rates and the buoyant security and real estate markets).
after the end of the export-led growth period. However, they are interesting in that they offer some evidence that the reforms in the 1980s were partial and not sufficiently sharp to tackle the high segmentation of the Japanese financial markets.\textsuperscript{52}

All in all, the Japanese experience in the 1980s and 1990s shows that the sequence and the depth of financial market reforms have a large impact on resource allocation and structural transformation of the real economy.

6.2. Domestic financial liberalisation in China

During the export-led growth period, the Chinese banking system has remained highly controlled and subject to administrative decisions. As banks typically intermediate more than two thirds of the capital in China, the functioning and the performance of the banking sector have always been of utmost importance. Banks, for instance, have been forced to purchase PoBC sterilization bills and to keep some US dollar reserves idle to facilitate the monetary authorities in the sterilization of foreign reserves. Besides preserving the stability of the exchange rate and keeping inflationary pressures in check, this approach reduced the emergence of financial and real estate bubbles for a protracted period of time.\textsuperscript{53} This approach, however, also contributed to aggravate the distortion of factor prices, the concentration of income (and hence the compression of household consumption), and the misallocation of credit across alternative uses.

The banking system in China has long remained dominated by the Big Four State-controlled banks (e.g., Bank of China, China Construction Bank, Industrial and Commercial Bank of China, Agricultural Bank of China) which have been connected, both business-wise and politically, to the largest SOEs.\textsuperscript{54} In 1994 three policy banks were established to take over the government-directed activities once carried out by the central bank: the Agricultural Development Bank of China to support agricultural development projects, the Export-Import Bank of China for trade financing, and the China Development Bank for infrastructure financing. Before China started serving massively the foreign markets in the early 2000s, domestic investment was the main source of domestic growth and capital accumulation. The State-controlled banks, in turn, were intermediating most of the internal funds with a view to supporting the economic plans and the political directives from the central and local authorities (see Section 8). Unsurprisingly, massive non-performing loans accumulated during the 1990s.

Understanding that non-performing loans would have been a drag on the overall growth of the economy, in 1999 the Chinese leadership created four asset managed companies to absorb (at face

\textsuperscript{52}This is not to argue that the incompleteness of the reforms was the main determinant of the inefficient allocation of resources underpinning the land and real estate bubbles, as instead argued in several US press commentaries in the late 1990s. Several factors, in fact, complemented the partial and abrupt liberalization in the 1980s and were co-responsible for the unpleasant development of the Japanese economy.

\textsuperscript{53}This is not in contradiction with the alleged emergence of credit and real estate bubbles in the late 2000s discussed in Section 5.2). These latter mainly reflected the expansionary policies enacted after the crisis and hence stem from the deliberate choice of the political leadership to expand credit to offset the contraction of global demand. They are not, in other words, a by-product of the export-led growth strategy but of the measures to counterbalance lower external demand.

\textsuperscript{54}These four banks were created in 1984 to separate the central bank’s and commercial bank’s functions previously jointly performed by the People’s Bank of China. With the exception of the Agricultural Bank, they were partially opened to foreign and local investors in 2005 (minority ownership), although they retained majority state-owned bank status.
value) some of the non-performing loans (1.4 trillion yuan) held by the Big Four banks (and further transfers were realized in 2000, 2004 and 2005 for a total about 3.6 trillion yuan). Although this intervention was less radical than it may seem at first sight, as the asset managed companies raised part of their financing by selling bonds and equity to the Big Four banks from which they were buying the non-performing loans, it represented a watershed moment for the Chinese development process: the authorities recognised that, even in a context of financial repression, weak banks’ balance sheets would have eventually slowed down growth and hindered the transformation of the economy.

The efficiency of credit allocation and banking productivity improved over time thanks to a series of financial liberalization measures. In 2003 the authorities established the China Banking Regulatory Commission which promoted further opening of Chinese banks to foreign minority ownership, strengthened accounting principles, promoted the development of ‘private commercial banks’, allowed for the entry of foreign owned banks (Martin, 2012) and for the listing on the stock exchange of a number of (joint-stock or equitized) banks. This notwithstanding, several studies concluded that State-controlled banks have continued to allocate funds according to criteria that do not refer to commercial considerations and efficiency-related objectives (Jia, 2009; Chang et al., 2010; Berger et al., 2009; Wu et al., 2014; Walter and Howie, 2011). This is of vital importance if one considers that the Big Four banks, the three policy banks and the eleven joint-stock state-controlled banks (equivalent only to the 0.3% of the more than 5000 Chinese banks) controlled in 2009 about 73% of the national banking assets (Johansson, 2012).

While financial repression kept persistently low the cost of capital and thus favored investment across the board, the extent to which different companies benefited of this varied a lot. External financing by small and medium businesses has long remained difficult (as shown, for instance, by Guariglia et al., 2011; Ding et al., 2013; Poncet et al., 2010; Lu et al., 2012) and these enterprises have exploited all available channels to raise funds, thereby contributing directly to the flourishing of a large shadow banking system introduced in Section 5.1). Hence, besides a serious segmentation of the labour markets and a regional and sectoral segmentation of the Chinese industry, China has suffered of a third severe segmentation, that in business financing (Song et al., 2011). This has negatively affected small businesses and reduced industrial dynamism.

All in all, credit market segmentation has not improved much during the last few years: the very attempt of the monetary authorities to rein in credit expansion in 2013 has been felt particularly by the small and medium enterprises that started facing higher interest rates and lower credit availability. If anything, this led these companies to strengthen even further their connections with

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55 The literature has in fact produce the divergent findings on the issues. See, among others, Chang et al. (2012); Matthews and Zhang (2010).

56 The shares of joint-stock banks are divided in various categories: nontradable shares in the hands of the State (the majority), nontradable shares in foreign hands, tradable shares traded in domestic and foreign stock exchanges. The Big Four banks and other national and local State-owned banks have issued IPOs inside and outside China. See for an overview Chang et al. (2012); Martin (2012).

57 Firth et al. (2009) find that the importance of political connections varies according to several borrowers’ features: in particular, by focusing on private non-listed borrowing firms, they show that political lending is more relevant for loans to service industries, large firms, and firms located in areas with a less liberalized banking sector. Zhou (2009) shows that entrepreneurs involved in small and medium enterprises that gain a legislative membership have easier access to bank loans.
the shadow banking system and with other providers of financing (such as trust companies and wealth
management products). Paradoxically, the massive growth in the total social financing (discussed in
Section 5.1) was fostered by the very same actions implemented to reduce bank lending because of the
severe segmentation of the financial markets. In 2014, the authorities have grown determined to curb
also shadow banking and this has inevitably affected the small and medium enterprises (SME). Hence,
since September 2014, the central bank ensured medium-term loans (worth about 800 billion yuan)
towards banks on the condition that these latter lower borrowing rates for small businesses. This is
an example of the fact that the current authorities appreciate the country’s economic problems, but
often resort to indirect measures rather than direct interventions on the ultimate sources of such
problems.

Not only bank ownership and portfolio diversification, but also short- and long-term interest rates
have remained highly regulated in China until the end of 2014. A mild interest rate liberalization
started in the early 1990s and has gradually included the removal of the upper limit on interbank
lending rates, and the liberalization of repo rates and of deposit rates over certain amounts (N’Díaye,
2010; Cargill and Parker, 2001). Money market and bond market rates were free by the end of the
1990s. After the accession to the WTO, the PBOC removed all ceilings on lending rates and all floors
on deposit rate. Yet, the system has remained highly regulated. In particular, a ceiling on deposit
rates has remained in still in force and a floor on lending rates was removed only in mid-2013.58 This
was meant to guarantee a high interest margin (about 3% between 2000 and 2010), ensuring that
banks could enjoy large income from interest activities.

The next crucial step in the liberalization of the interest rates in China is the removal of the
ceiling on deposit rates as this would likely be followed by higher interest rates across the board.59
This adjustment, in turn, could facilitate the rebalancing process: higher returns on saving would
contribute to lower income inequality, reduce the misallocation of capital, foster a more efficient use
of credit, contain over-capacity, and hinder the expansion of financial bubbles. The authorities had
nonetheless to proceed with care. The liberalization of interest rates could have adverse effects on
entire sectors of the Chinese economy and on the political authorities if, for instance, it ended up
hampering productive investment, attracting hot capital inflows, putting pressure on the sustainability
of the growing public debt, stressing banks’ and SOE’s balance sheets, and forcing a fast deleveraging.
It is not a case that, in Autumn 2014, banks were allowed to set deposit rates 1.2 (against 1.1) times
the benchmark level, not to choose them freely.60

To be sure, the current policy discussion in China is not about whether having or not a profound
reform (i.e. liberalization) of the financial and banking sectors. This process is already ongoing and
there is no sign of reversal.61 In the medium and long term, the reform of the financial sector is key

58 Accordingly, in October 2013, the central bank started releasing a prime lending rate based on the actual lending
rates indicated by nine leading commercial banks.

59 In 2014, the interest rates paid by wealth management products were extremely larger than the deposit rates: this
suggests that the ceiling on deposit rates is binding and it guarantees net interest margins for the banks.

60 Also this move can be read into contrasting ways: either a crucial step towards fully-fledged interest rate
liberalization; or the adjustment to allow banks to preserve high one-year deposit rates after the simultaneous cut in
the benchmark official rate.

61 The Pardee Center Task Force Report (Kevin P. Gallagher, 2014) developed an analysis of the Chinese capital
account liberalization from this very same starting point: “Therefore, it is not fruitful to debate whether China should
to ensure the domestic rebalancing (meaning less cheap credit and low-returns investment, higher household income and consumption, more efficient allocation of productive input) and a satisfactory rate of economic growth. It is the speed and the sequence of the reform to be the object of a heated discussion.

Since mid-2013, various measures have been implemented with the twofold goal of redressing the financial excesses and reforming the financial system. Credit quotas have been substituted by (less stringent) targeted growth rates of credit which the PBoC expects the banking system to respect. In so doing, the monetary authorities aimed to retain some control on the overall expansion of credit in the economy but also to increase the role of market-based mechanisms and prices in the allocation of the liquidity across banks. Similarly, banks’ lending interest rates were partially liberalized, thereby allowing Chinese banks to price in the perceived lending risks and to limit hazardous allocations due to personal relationship and political recommendations. As mentioned, in 2014 the Chinese authorities took repeatedly action to slow down broad credit growth and to rein in shadow banking: in particular, they announced and implemented tougher administrative requirements on banks’ activities and assets, and imposed tighter restrictions on various forms of cooperation between banks and non-bank financial institutions. All these measures go in the right direction and are consistent with the goal of letting the market play a more “decisive” role in the allocation of credit and other resources, as decided by the Third Plenum of the 18th Communist Party Congress in November 2013 and confirmed by the Premier Li Keqiang in his Work Report to the 12th National Peoples Congress (Beijing, on March the 5th, 2014).

Despite these and other signs of progress, serious challenges loom for the reform process. First, there are serious constraints on what the authorities can do to curb shadow banking and total social financing. It is clear that credit must be channelled through the traditional banking sector towards productive uses rather than through non-banking institutions toward speculative positions. However, this reallocation of funds must occur without choking the LGFVs, the local governments, and the small businesses that started relying mainly on non-traditional sources of financing. Similar considerations hold for the liberalization of the interest rates. It is true that liberalized interest rates are necessary to make financial intermediaries respond to risks and expected returns rather than to political directives. Yet, for a risk-based system to operate properly, other institutional and context-related conditions must be observed: transparency and financial disclosure, a strong corporate governance in the private sector, a level plain field for public and private companies.

How does China score along these dimensions? So far, SOEs have carried no higher risk that the State, irrespective of their operations and financial conditions. State-owned and State-controlled banks, in turn, continued to respond to a wide range of interests and goals, and kept operating under the guarantee of the government. Transparency has not increased either. Even though the Chinese regulators did take action against the expansion of shadow banking and of the off-balance

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62 See the detailed account by Martin (2012) for an overview of the conflicting forces and interests impacting on the activities of the various types of banks (in particular, the State-owned policy banks, equitized banks, city commercial banks, joint-stock commercial banks) in China.
sheet assets, and it commanded stress tests to show their resolve to rein in the credit bubble, this
process has remained behind closed doors. This is hardly compatible with the smooth functioning of
modern capital markets. The central bank’s approach to providing liquidity to the small companies
in the second half of the 2014, moreover, is another example of a sort of covert easing, whereby
the authorities exercised moral suasion on a number of selected banks. The Global competitiveness
report 2013-2014 of the World Economic Forum placed China at the 54th place in the global ranking
for the level of financial development: poor regulation of securities, insufficient enforcement of legal
rights and problems in the soundness of banks are the determinants that drag the overall performance
of country in the sector. Shareholders’ rights are also problematic, as indicated in the 2013 World
Competitiveness report published by the IMD. 63

Realistically, this state of affairs will not radically change over a short period of time. If firms’ risks
were immediately priced in and all State guarantees were abruptly removed, an otherwise welcome
rebalancing process could turn into a self-fulfilling financial crisis. Similarly, although the firms
with greatest excess supply should be the first to go bust without receiving public support, they are
unlikely to be left alone: generous financial assistance could be guaranteed, should the authorities be
concerned with default avalanches and negative spillovers into other sectors. Similar concerns could
prevent a much needed reshuffling among banks and financial institutions as, given the large size of
accumulated bad loans, the authorities could be wary of letting a number of financial operators to go
bust. This might be disturbing in the eyes of those advocating a “big bang” approach to financial
liberalization in China. As argued by Cargill and Parker (2001), implicit government guarantees favor
moral hazard lending behaviour and excessive risk taking in an liberalized environment as much as
they do in a highly regulated one: thus, an implicit State guarantee on certain companies and sectors
will distort further (rather than correct) the allocation of resources and the price determination after
the liberalization of the financial system. 64

In sum, the question is to what extent bank defaults will be tolerated by the Chinese authorities
if they are resolved to show that there is not such a State-put on the entire Chinese financial system.
Will they tolerate the personal losses that will have to be inflicted to wealthy investors to show that
wealth management products are risky forms of saving and are only imperfect substitutes of the
low-interest rate deposits? In principle, the authorities could exploit the existing segmentation in
the financial markets to enforce market discipline only on certain institutions, while preserving the
remaining of the system. However, the Japanese experience suggests that exploiting segmentation
and partial liberalization is very hard for the spillovers effects that piecemeal reforms typically have.
“Selective” market discipline is not just oxymoron: the uncertainty regarding what institutions and
investors will be let to take the hit would be the object of market speculation and would increase the

63 Interestingly, although Japan scored better and was placed at the 23rd place, it performed worst in the very same
sub-indicators. Moreover, access to financing and foreign currency regulations appear among the most problematic
factors for doing business.

64 The 2014 bailout of domestic bondholders of Chaori Solar, a solar equipment producer in financial troubles, avoided
the first default on onshore corporate bond in China (whereas defaults on offshore bonds issued by Chinese firms
already occurred). This assistance to a company engaged in a sector exhibiting clear signs of overcapacity led various
observers to argue that the Chinese authorities were not ready to let investors take a hit. This was also mirrored in
the evolution of the yield differentials between AAA- and AA-rated onshore Chinese corporate bonds.
volatility in market prices.

If one believes that the Chinese economic system is seriously unbalanced, an abrupt shift towards a risk-based financial system in which market forces determine the allocation of credit may hardly appear as the most appealing of the solution. While in the future resource allocation will be certainly determined by market-based considerations, it is likely that for a prolonged period of time the authorities will continue to decide discretionary on how to deal with the imbalances and the excesses accumulated in the past, at least until redressing them will be likely to generate negative social spillovers and network externalities too large for the authorities not to intervene. Accordingly, during the transition, I expect government’s discretionary intervention to be certainly different from the past, but still remarkably high.  

The scenario will be further complicated by the numerosness of public institutions which can influence banks’ activities: the PBoC, the China Banking Regulatory Commission, the Ministry of Finance, SAFE, and, though to a different extent, the local governments (Martin, 2012).

I acknowledge that not all experts and scholars would agree with my cautious expectations regarding the domestic financial liberalization. The recent greater availability of credit to SMEs in China, for instance, was interpreted as a clear sign of the progress made in rebalancing the sector: lending activities, the story goes, have become more neatly driven by market-based incentives given that the SMEs are the ultimate source of innovation and growth in China. This phenomenon, however, can be interpreted in a less optimistic way: more generous credit to SMEs could be the result of a worsening in lending practices, at least to the extent that small enterprises are riskier than larger firms and they would not qualify as trustworthy customers without government’s instructions in this direction. The fact that, as mentioned, credit provision to the SMEs in late 2014 was indirectly promoted by the central bank by discretionary conditional loans to certain intermediaries does not bode well for market liberalization. What matters here is that this scenario is what happened in Japan after the first wave of liberalization in the 1980s (see Section 6.1), when banks turned their loans to smaller and riskier companies after the large corporations started borrowing abroad and issuing corporate bonds. Were this second interpretation correct, the hype surrounding greater reliance to markets and market-based incentives could mask some excessive leniency in the evaluation of private SMEs’ creditworthiness. The parallel with the Japanese experience is important as most of the literature focusing on financial deepening assumes that countries are market-oriented economies, which was not the case in Japan in the 1980s and it is not in present-China.

To close, the modalities and the pace which the authorities would adopt the reform of the domestic financial sector will be crucial for the success of the rebalancing process in China. A “big bang” approach could be dangerous in a environment that has not graduated from intrusive administrative controls and diffuse public ownership, and that suffers on inherited large imbalances. Bad loans and potential non-performing loans have grown together with credit growth in the last few years and it is not clear whether it would be wise to undertake a rapid transition towards a risk-based credit system in a context characterised by underdeveloped market infrastructures, institutions not yet

\footnote{This, in turn, will feed uncertainty as market participants will fail to understand whether and to what extent individual financial and non-financial companies may receive support.}
modern and accountable, and a mountain of potentially bad loans and sour debt.\textsuperscript{66} It should be recalled that while the Japanese banking crisis took place twenty years after the start of the financial liberalization, China had to deal with large non-performing loans in the early 2000s immediately after the first deregulatory steps and it risks suffering for the same problems again soon.

Hence, despite the emphasis in the official documents on the greater role that markets will soon play in the allocation of resources, I believe that government interventions will continue, in particular in favor of those financial and non-financial companies whose default could create large negative spillovers and even escalate to a systemic crisis. Some observers argued that a mixed approach would be possible and preferable: the State-controlled sector (including banks and firms) could be preserved (and its inevitable shrinking could be monitored and supported), while a risk-based credit market could operate in parallel for the private sector. This approach may have a number of advantages, but is not easy to implement. The compartmentalisation of the market-driven and State-influenced financial systems would be more complicated than the territorial segmentation of markets (i.e., the ‘one country, two systems’ solution with Hong-Kong): this could require additional restrictions and interventions, that is precisely the contrary of what pursued with the liberalization.

In sum, assuming that a gradual process of reform will occur, some conditions need to be respected for its success. The Japanese experience shows that the authorities must exchange occasional support for greater transparency; the transition towards more efficient companies and banks must be encouraged notwithstanding individual cases of default and bankruptcy; the stronger the economy will grow, the lower the implicit State guarantees (especially regarding off-balance-sheet risks) must become. Many of these conditions are far from being realized.

6.3. \textit{Capital account liberalization in China}

If the economic, political and military importance of China has grown rapidly over the last two decades, the same cannot be said for the role of the country in the international monetary system. China remains an ‘immature creditor’ that continues to lend abroad in foreign currency mainly through the intermediation of its official institutions (McKinnon and Schnabl, 2014). These latter have accumulated large stocks of liquid foreign assets, a great trunk of which (around $1.5 bn) in US Treasury securities. Though no official data are publicly available, between 60\% and 70\% of its foreign exchange assets are denominated in U.S. dollar. In mid-2014 the official reserves were estimated to have reached $4 trillion (around 40\% of Chinese GDP, down from the astonishing 50\% recorded in 2009). Yet these figures may underestimate the total amount of official foreign assets held by China for one could add the assets held by other State-controlled institutions (such as the China Investment Corporation, which was established with a view to diversifying the holdings of official reserves), and the assets purchased through foreign banking centers.

Besides mercantilist motives, China (as well as other emerging countries) accumulated reserves for a number of complementary reasons with a view to liberalizing the financial account, addressing

\textsuperscript{66} The report \textit{China 2030} jointly written by the World Bank and the State Council’s Development Research Center (DRC) in 2013 makes this point clearly: “Financial reform can progress successfully only when accompanied by institutional and organizational reforms. Liberalizing market rules without changing old institutions can deepen distortions.”
potential bad loan problems of domestic banks, responding to speculative attacks, smoothing idiosyncratic shocks and managing capital reversals.\textsuperscript{67} In 2013, official reserves grew by more than $400 billion, mainly thanks to a 2\% current account surplus and positive net capital inflows. This implies a pace of growth that is similar to those observed in the years before the global financial crisis.

Chinese total foreign assets at the end of 2013 stood at 5.94 trillion US dollars (of which $3.9 trillion in official reserves and $0.6 trillion in foreign direct investment), up 700 billion dollar above the 2012 level. Its foreign liabilities were instead equal to $3.97 trillion (of which $2.3 trillion worth FDI). Despite a positive net position of almost 2 trillion, China’s income account has remained negative for 60 billion, a figure that reflects the country’s status of ‘immature creditor’.

If one focuses on financial inflows into China, the first thing to notice is that the PoBC has provided, at the official exchange rate parity, most of the domestic currency needed by foreign importers to settle their trade transactions with the local exporters: this is consistent with liberalized current account transactions. Speculative (hot money) inflows have instead been firmly discouraged (had it not been for over-invoicing, disguised income transfers, and some complex operations through off-shoring financial hubs) because their sterilization would have put too much strain on the monetary authorities and the domestic banking system. On the contrary, foreign direct investment, especially greenfield investment, have been encouraged and China has become the largest recipient of FDI among the emerging and developing markets. Over time, direct investment inflows changed their composition from manufacturing towards service sectors, yet they did not decrease in size. The Chinese authorities developed a new regulatory framework with a view to attracting foreign funds and updated it to align the FDI inflows with the national development priorities. Wholly-foreign-owned enterprises and equity joint ventures have recently become the dominant forms of FDI in China. FDI contributed to three main trends observed in the Chinese economic development process: 1) the fast accumulation of foreign exchange reserves, 2) the large share of production directed to foreign markets (given that until the early 2010s foreign invested enterprises accounted for 60\% of the Chinese foreign trade, against a 25-30\% share of the industrial output), and 3) the high capital-to-GDP ratio (especially from the late 1990s up to the first half of the 2000s).\textsuperscript{68}

More recently, the authorities started welcoming other long-term portfolio inflows, even though these latter remain highly regulated. Qualified foreign institutional investors (QFIIs), that is a selected group of foreign investors operating in such foreign markets as Hong Kong, Singapore and London, are the only investors allowed to operate from abroad on the various segments of the Chinese financial markets (e.g., equities, bonds and other financial instruments). After the license approval (unsurprisingly subject to number of eligibility requirements), QFIIs are allocated a quota they can use for renminbi-denominated operations in the onshore capital markets. For instance, QFIIs can purchase RMB-denominated shares, the so-called ‘A-shares’ in the Shanghai and Shenzhen stock

\textsuperscript{67}In short, hoarding reserves may be motivated both by growth objectives and by precautionary motives as discussed by Aizenman and Lee (2008); Cheung and Qian (2009); Durdu et al. (2009); Aizenman and Sengupta (2013); Bonatti and Fracasso (2013a); Aizenman et al. (2014); Aizenman and Ito (2014); Bayoumi and Saborowski (2014); Cheng (2014), among others.

\textsuperscript{68}See Davies (2013) for figures and insights on FDI policy in China.
Foreign investors interested in China’s RMB-denominated A-shares have to apply to the QFII programme and compete for the allocation of part of the quota ceiling. As of early 2015, the investors receiving the approval and the quota must then respect a one-year lockup period and cannot repatriate their capital without the consent of State Administration of Foreign Exchange (SAFE).

Another important reform was introduced in 2011 when a number of qualified investors (called Renminbi QFIIs) were authorized to raise renminbi in Hong Kong through settling trade, accepting deposits, and issuing bonds, and to purchase assets in China, such as the RMB-denominated shares of the Chinese companies.

All qualified investors must have an authorized Chinese custodian bank as a partner that also submits applications for licenses and quotas, given that all the transactions between foreigners and Chinese investors must be channelled through the authorized operators. As I shall argue, the segmentation of onshore and offshore markets revolves around a restricted number of highly monitored institutions that connect the various segments. This is why the QFII program is a transitional mechanism to promote the adoption and use of the RMB outside China but it will not last once capital markets will be fully open.

Outward foreign direct investment, or Chinese Outbound Investments (ODI), have expanded remarkably in the last few years, but they have remained tightly controlled. Enterprises’ operations abroad have remained subject to preliminary scrutiny and approval by the Chinese authorities, according to requirements that change over time in line with the evolution of the national economic plans. ODI became one of the main pillars of the 2001 ‘go global strategy’ that made steady progress under Premier Wen Jiabao and the subsequent leadership: non-financial ODI stocks passed from $50 billion in the early 2000s to circa $500 billion in 2014.

Chinese investments towards advanced, non-Asian economies started increasing since the second half of the 2000s. The Chinese investment in the US doubled in 2013 along a raising trend initiated in 2007: large-scale acquisitions in food, energy and real estate were the bulk of the recorded investment operations. Europe, instead, was the preferred destination for the non-financial investment in 2012. Ad hoc domestic financial institutions (such as the China Investment Corporation, founded in 2007) were established by the authorities explicitly to channel funds (i.e., foreign reserves) towards...

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69 On the Shanghai and Shenzhen stock exchanges one can find other two equity markets where B-shares are traded: these are denominated in US dollars (Shanghai) and Hong Kong dollars (Hong Kong), even though they carry a face value denominated in renminbi, and can be traded without restrictions. Finally, Hong Kong has a H-share market, where the shares of companies incorporate in mainland China are denominated in Hong Kong dollars and can be traded unrestrictedly.

70 Since 2001, the ODI policy was reformed at various times and a number of restrictions were gradually relaxed. Among the various changes to mention, I recall softened approval and inspection rules, lower guarantees, and simplified controls on the source of funding. In September 2014, the Ministry of Commerce (MOFCOM) revised the so-called “Rules” and restricted approval only to outbound investments into sensitive countries or regions, as well as in sensitive industries. This followed the NDRC’s choice to ease restrictions on outbound investment in April 2014. These regulatory changes were indeed expected and in line with the State Council’s decision in 2013 to eliminate many restrictions and approval requirements for outward FDI.

71 Notwithstanding a positive trend, the patterns of ODI in the US in 2012 and 2013 show volatility and heterogeneity, due to the importance of few mega deals. For instance, European countries were the first destination-region in 2012 and came after North America, Asia and Africa in 2013; conversely, Asia followed Europe, North America, South America and Oceania in 2012, while it was ahead of them, but North America, in 2013. Similarly, deals regarding the industry sectors were relevant in Europe and, to a lower extent, in Asia in 2012, while they touched one fourth of the total ones in the US in 2013.
strategically important sectors, such as those endowed with technology, brands and knowledge. China’s investments in less developed countries have followed a different logic, being focused on infrastructures and natural resources activities, with the objectives of providing foreign investment opportunities (and sales) for domestic companies and of guaranteeing the imports of raw materials and energy on favorable grounds.\(^{72}\)

State-owned enterprises have been typically the origin of most capital directed abroad, but the share of private enterprises has grown rapidly since mid-2013. A limited number of well-established private brands in China (among which Haier, Huawei and Lenovo) have accessed international markets.\(^{73}\) In the most recent years, Chinese companies undertook their ODI plans with two different objectives in mind: the first one was transferring low value-added activities to other developing countries to prevent that rising input costs would reduce their ability to serve low-end markets; the second objective was the acquisition of brands, technological capabilities, intangible knowledge, and human capital so as to boost the productivity of Chinese firms (not only abroad, but indirectly also at home) and to acquire the expertise in those services that are necessary to promote foreign sales of high value-added products.

This said, it is worth stressing that foreign capital outflows in the form of ODI have not been fully liberalized. The actual implementation of the ODI policy remains subject to the requirement that operations fit well in the overall development and growth strategy of the country. Moreover, even though restrictions on foreign operations have been drastically limited in the late 2014, the authorities can still influence the process indirectly. The dramatic growth of private companies’ ODI, for instance, is partially amenable to the reserve diversification goal pursued by the authorities: the ‘Co-Financing Office’, established in 2013 to seek ‘innovative use’ of the reserves, assisted the PoBC’s provision of foreign reserves to the Chinese banks for the support of their clients’ operations abroad. It follows that the policy trade-off between internal and external adjustment objectives still affects both the ODI regulatory framework and its actual implementation over time.

The reforms announced at the Third Plenum in November 2013 were coherently directed towards the promotion of greater ODI flows. The authorities did modify, as they had committed to do, the regulatory framework regarding ODI and State interventionism and bad implementation will become less of a problem in the future. Certain measures, however, may also have a negative impact on some objectives of the reform plan. The Party’s decision to make the SOEs distribute larger share of their profits may reduce the overall sum available for ODI, especially if one considers that profits may shrink due to growing costs, lower external price competitiveness and lower preferential treatment. The importance of SOEs and SCEs (especially in ODI directed to resources-related sectors and developing countries) is still unchallenged, notwithstanding private investors started closing various medium- and large-sized deals since 2012, thereby increasing their relative contribution to overall ODI.\(^{74}\) Hence, the overall impact of the ongoing reforms on ODI will ultimately depend on the extent

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\(^{72}\) The geographical and sectoral decompositions of the Chinese ODI is in fact subject to a great deal of uncertainty. As it happens for many other statistical data in China, it is hard to interpret the actual role played by Hong Kong in the ODI flows. Hong Kong is the top destination for Chinese ODI but it is very likely that it operates as a conduit.\(^{73}\) Huawei, for instance, in 2014 counted on 17 R&D sites and 19 joint innovation centres only in Europe.\(^{74}\) The recent rise of private enterprises ODI in relative terms is an important phenomenon but it may also be due to
to which the private sector will expand at the expenses of SOEs and SCEs, and whether or not domestic credit and other resources will start being allocated exclusively according to market-based considerations. It is also worth recalling that, especially after the 2014 capital account liberalization measures, ODI growing official figures may have reflected the fact that funds started leaving China through the ODI channel with destinations in fact different from real investment projects. Should the authorities recognise this as a problem for the management of the overall financial account, it cannot be excluded that some restrictions will be re-introduced in the near future. Finally, as ‘taught by ‘Japan Bashing’, the greater the activism by Chinese financial institutions in promoting foreign acquisitions, the more scepticism SOEs and SCEs will face abroad, in particular if Chinese ODI will be aimed to extract foreign knowledge and to penetrate the local service markets abroad, or if the proposed acquisitions will raise challenges to national security in the receiving countries.\(^{75}\)

In closing, it is worth recalling that, notwithstanding a rapid expansion of foreign assets and liabilities, the international investment position of China remains relatively small (circa 3\% of global financial cross-border assets and liabilities). Most transactions are still marked by traits that characterise highly controlled financial systems. Hence, notwithstanding the recent liberalization wave, it is fair to conclude that much remains to be done to ensure that financial transactions will contribute to the redressing of the imbalances. The pace and sequence of capital account liberalization remains at the heart of a successful transition of the Chinese economy.

6.4. The internationalization of the yen and the renminbi

Capital account liberalization and the internationalization of a currency are often bundled together, even though they differ. A currency assumes an international status when non-residents use (or would use) it to invoice and settle international transactions, as well as to discharge international financial obligations, and when it is held by foreign public authorities and private investors as a valuable asset in their diversified portfolios. Hence, while capital account openness is a distinctive trait of any market economy (with and without floating exchange rates) that does not impose systematic controls and restrictions on its cross-border financial flows, only few currencies possess an international status.

After the collapse of Bretton Woods, most currencies got disconnected from gold and the US dollar. The yen, after an immediate appreciation against the dollar, started depreciating until the Plaza accord in 1985 inverted the trend. The Japanese economy expanded driven first by foreign exports and then by the domestic boom discussed in Section 4. In the appreciation period the use of the yen increased both for accumulating foreign reserves (also because its expected appreciation made it a rather attractive means to store value) and for invoicing and settling cross-border trade. As reported by Subacchi (2013), by 1990 about 40% of Japanese exports and 20% of imports were invoiced in yen and the share of international reserves denominated in the Japanese currency reached 8\%.

\(^{75}\)In the US the Committee on Foreign Investment in the United States is charged with considering the filings and scrutiny their impact on national security. Despite complex regulations and a greater US sensitivity to Chinese participation in the local market, approved deals have increased both in number and in size, as mentioned above. This may be motivated by the positive employment contribution of Chinese investment. Whether this short-term positive impact on employment will continue to outweigh scepticism remains to be seen.
Foreign financial intermediaries managed to enter Japan after the first liberalization wave in the 1980s and Japanese banks also expanded abroad. The authorities promoted Tokyo as a major international financial centre in the attempt to attract foreign risk capital and financial expertise in the country, on the one hand, and to foster the international use of the yen. In the mid-1980s the liberalization of capital account transactions in yen gained momentum: new yen markets and instruments (yen-denominated bankers’ acceptance market, financial futures and options) were created even though administrative procedures continued to make international transactions difficult. Euro-yen deposits were very limited as Japanese non-bank residents could not hold yen-denominated deposits on offshore markets until 1989, as instead was permitted in Germany in those same years.

Albeit diffuse and widely accepted, the yen never quite managed to acquire the status of global currency. Both in terms of international debt offerings and foreign exchange transactions, Japan in mid-1990s still lagged behind the US and several European countries. In particular, the yen never established itself at the centre of a regional Asian bloc: on the one hand, most Asian countries continued to peg their currencies to the US dollar; on the other hand, most Asian economies in the region were small and insufficiently advanced to make it convenient for Japan to build a regional currency bloc around the yen. The risk of losing monetary independence and of exposing Japan to large and volatile capital flows discouraged the authorities from putting the internationalization of the yen high in the agenda, also to eschew the obligations that fall on the anchor of a regional monetary system. This choice was influenced by other conditions as well; for instance, the fact that Japan did not liberalize its domestic financial sector until the late 1990s (as discussed in Section 6.1). For a long period of time, as a matter of fact, the Japanese authorities preferred not to give up the tools to influence the financial sector in exchange of limited gains from a greater internationalization of the currency.

It was only at the end of the 1990s, when the Foreign Exchange Law of 1980 was revised, that Japan truly opened up to the global financial markets: in 1998 capital account transactions were freed of all the existing restrictions as part of a massive deregulation campaign known as the financial ‘Big Bang’. Yet, as explained by Subacchi (2013), it was probably too late for the yen to achieve the status of a international currency: the Euro was emerging, the macroeconomic fundamentals of the Japanese economy were deteriorating, the domestic financial system was deleveraging, and the Asian crisis had just scrambled the monetary arrangements in the Asian region.

Differently from Japan in the 1980s, the Chinese authorities have explicitly declared their intention to promote the internationalization of the renminbi at this very early stage of its opening up and liberalization reforms. This intention has so far found confirmation in the realization of a series of measures and experiments directed to create incentives for foreigners to use the Chinese currency and hold RMB-denominated assets.

A number of measures and policy experiments have been started with a view to encouraging the internationalization of the Chinese currency. The first measures were directed to encourage the settlement of international trade transactions in renminbi: in mid 2009, a RMB trade settlement scheme was developed to facilitate the adoption of the Chinese currency in the settlement of cross-border trade transactions. The pilot program was progressively extended from 5 cities in 2009 to 20 provinces in 2010 and to the whole country in 2011. In 2013 it got to cover more than 10% of
the Chinese trade exchanges. This result owes to various factors: the large exchanges with Hong Kong, the resilience of China’s growth and trade performance, and the expectations for further appreciation of the currency.\footnote{Clearly, Chinese statistics remain a bit difficult to interpret in historical and cross-country comparisons because of the peculiar status of Hong-Kong, which is a developed financial centre operating under British Common Law and an historical entrepot for traded products to and from mainland China. Yet, there is no doubt that a growing number of companies started invoicing in renminbi. This choice has been facilitated by the absolute size of China and of its trade flows, but also by the large FDI flows between China and other Asian countries. While this may change in the future, the relative stability of the renminbi with respect to the US dollar (along a steady trend of moderate appreciation) facilitated the adoption of the Chinese currency for settling intra-Asian trade flows as most Asian currencies also followed the US dollar closely.} For this reason, import trade settlements expanded faster than export trade settlements, at least until 2011. Since then, also because of a lower appreciation pressure on the renminbi, a larger share of exports has been settled in the Chinese currency and the receipt-to-payment ratio in RMB-denominated trade settlement has become more balanced.

As the choice of the currency to invoice and to settle cross-border transactions is motivated by different objectives, the fact that the currency of invoicing and that of settling often differ in Chinese trade hints at the existence of conflicted incentives. As pointed out by Yu (2012), RMB-denominated import settlement is encouraged by the expected appreciation of the currency as long as imports are invoiced in currencies other than the renminbi. This is to say that an asymmetric composition of increasing trade settlements in renminbi is not necessarily consistent with the rebalancing process as it does not contribute to reduce the speed of accumulation of foreign exchange rate reserve.

To facilitate the allocation of the renminbi deriving from trade and small financial settlements abroad, the Chinese authorities authorized a number of offshore banking institution in Hong Kong (and subsequently in other financial centers around the world) to collect RMB-denominated deposits. These count for a limited share of total deposits in renminbi, but their pace of expansion has been extremely rapid: offshore RMB deposits in Hong Kong grew by a factor of twelve from 2009 ($9.2bn) to 2013 (around $140bn). Notably, once the above mentioned receipt-to-payment ratio in RMB-denominated trade settlements started being more balanced, the growth in foreign RMB-denominated deposits slowed down. But the lower rate of growth in offshore RMB-denominated deposits has not been only due to more balanced import and export settlements: the expansion of RMB-denominated investment opportunities in Hong Kong (such as the certificates of deposits and the RMB-denominated retail bonds), in other financial centers (e.g., Singapore, Taiwan and, to a lower extent, London, Frankfurt and Luxembourg) and even in mainland China (through the Renminbi Qualified Institutional Investor scheme to invest offshore) contributed as well.

To encourage the use of the Chinese currency as a store of value abroad, the Chinese authorities allowed selected financial institutions and companies to issue retail bonds denominated in renminbi under an annual quota. These bonds are traded in offshore RMB-denominated bond markets in Hong Kong and in other authorised financial centers (for instance, Luxembourg and Singapore). The issuance of ‘Dim Sum bonds’, as these bonds are called, has grown persistently other time, even during the first months in 2014 when the renminbi devalued against the US dollar.

Typically, financial intermediaries face regulatory restrictions on the use of foreign currency, in particular because the issuance of foreign currency bonds creates additional risks for the issuing
companies given that the domestic central bank cannot freely act as a lender of last resort in case of liquidity needs. Accordingly, China has concluded a series of bilateral RMB-denominated swap agreements with various developing and developed economies: this should allow foreign monetary authorities to intervene in renminbi if necessary and, hence, to facilitate the use of renminbi by foreign intermediaries. To the same end, since 2010 the PBoC started authorising a limited amount of direct trading of the renminbi with currencies different from the US dollar, so as to make easier for European and Asian investors to convert currencies without triangularization (Eichengreen and Kaway, 2014). Notwithstanding such regulatory and policy improvements, only foreign official institutions expanded the share of reserves denominated in renminbi: foreign private banks did not yet start holding large amount of the Chinese currency. The limited capital account convertibility and lack of depth and width of the Chinese financial markets are the most likely determinants of the reluctance to expand the use of the renminbi as a store of value. This, in turn, has clearly contributed to prevent the Chinese currency from assuming the status of international reserve currency.

These differentiated attempts to promote the use of the renminbi abroad are at variance with the presence of tight capital controls: while it is common that a country with free capital flows does not issue a currency enjoying a reserve status (as only few currencies achieve this condition), it is more controversial that a country with tight capital controls can also aim to spread the use of its currency abroad. The Chinese authorities did try this unusual path by preserving a severe financial segregation in the very use of the currency: they allowed the co-existence of two exchange rates for a currency that is officially unique. One is an onshore partially convertible currency (usually labelled as CNY) and the other is a offshore, free market, renminbi traded in Honk Kong (labelled CNH) (as well as in Taiwan (CNT) and Singapore (CNS)). CNY is anchored by the official daily central parity rate and trading band, whereas the CNH exchange rate floats freely.\footnote{See Whalley and Chen (2013) on the relationship between CNY and CNH. Although the price of the CNY does in theory reflect the market equilibrium in each transaction day, the main brokers in the Chinese market are State-controlled banks and, as argued by Yao and Whalley (2015), the CNY is more a planning price than a market price.}

As mentioned, Chinese banks and insurance companies are allowed to set up subsidiaries in a number of authorized offshore financial centers (e.g., Hong Kong, Taiwan, Singapore, Korea and two in Europe, London and Frankfurt), where certain transactions can be settled in renminbi. RMB-denominated deposits can also be held abroad and the offshore renminbi CNY can be converted into other currencies at market rates.\footnote{In addition, in 2014 China provided financial assistance to a number of countries in trouble.} To boost the internationalization of their currency, in practice, the Chinese authorities did not open up the capital account but rather introduced a two-tier segmentation system. As a matter of fact, China decided to ‘go global’ and prompt the foreign use of the renminbi relatively early if evaluated in terms of the level of economic and institutional development. This strategy required the creation of offshore renminbi markets located in global financial centres where institutions and regulations were well established and enjoyed global investors’ trust. The importance of the renminbi abroad has grown rapidly, but the RMB assets China holds offshore in 2014 remained quite limited ($300 billion) and total RMB debt and equity assets accounted for less than 1% of the world assess (50 times less than the US).
In September 2013 the State Council revealed a plan of action to reproduce this very same framework entirely onshore. A Master plan (followed by a number of Opinions and Circulars in early 2014) clarified the main traits of a ‘pilot Free Trade Zone’ for international financial exchanges to be developed in Shanghai by 2015. The Free Trade Zone, where special regulations and rules will apply, was meant to open up investment and deepen the liberalization of the financial sector. The State Council announced that the Zone would have served as a ‘controlled’ area where to experiment the convertibility of RMB capital account and the liberalization of the interest rates. Although most economists interpreted this plan as a sign of the Chinese commitment towards the liberalization of the capital account, I would rather consider the idea of preserving segmented currency markets as a sign that capital controls will remain in place for some time. The movements of funds between the free trade accounts in the Zone, the other Chinese accounts, the offshore accounts and the foreigners’ accounts in the rest of China will remain highly regulated.

This is also confirmed by Mr Jian Danian, the Deputy Director General of the Free Trade Zone, who claimed that this innovative platform was not meant to create an international financial centre, but rather to support trade and investment enterprises.

Although the internationalization of the currency is neither a pre-requisite for nor an accompanying feature of the process of capital account and exchange rate liberalization, the Chinese authorities seem to conceive these processes as highly correlated. More precisely, the internationalization of the renminbi is thought as having the potential of catalysing those financial reforms that are envisaged as key in the growth rebalancing strategy. This helps to explain why the internationalization of the currency seems to precede most of the much needed domestic financial reforms and the liberalization of the financial flows. Indeed, whereas the promotion of the currency abroad intensified in 2009, ‘basic’ capital account convertibility is planned for the year 2015 and the exchange rate is expected to become more flexible but not freely floating. Similarly, the major domestic financial reforms on a nationwide basis are planned to be introduced only gradually by 2020.

This ordering of the financial liberalization process has raised various qualms on which I shall return in Section 6.5. As argued, the historical experience and theory suggest that the degree of capital account openness, the flexibility of the exchange rate, the liquidity of the domestic financial markets and the reliability of political, regulatory and judicial institutions determine whether and to what extent a currency might acquire an international status. The Chinese authorities seem instead to trust into an inverse causation mechanism. A highly questionable belief, in my view. While certain investors will find attractive to hold RMB-denominated assets and settle cross-border transactions in renminbi even with controls and restrictions in place, both international banks and foreign central banks will not be in a position to use the renminbi for liquidity management until China’s capital account will be open, its domestic financial markets will be liberalized and a

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79 A Chinese resident will be allowed to transfer funds from his/her free trade account to an account elsewhere in China only for certain purposes (current account transactions, loan repayments, investment). The transfers to other individuals’ onshore accounts will be treated as cross-border transactions.

80 It is worth noticing that, one year after its launch, the Zone attracted a limited number of activities. In particular, financial institutions have not run into the newly established special area. This notwithstanding, Yao and Whalley (2015) offer some *prima facie* evidence that capital controls have relaxed since the introduction of pilot Free Trade Zone.
trustworthy supervisory and regulatory framework will be in place. Nor one can expect that the Chinese authorities will endorse a Big-bang financial reform approach only for the sake of promoting the renminbi as an international reserve currency: a premature removal of capital account controls which is not accompanied by domestic liberalization and regulatory reforms would be likely to create more harm than good to the internationalization of the currency.

Other reasons suggest that this sequencing may fail to work as expected. As pointed out by Yu (2012), there is a potential tension between favoring the early internationalization of the renminbi and facilitating the removal of capital account restrictions. To encourage foreigners to accept trade settlement in renminbi, for instance, the authorities created channels through which non-China residents can hold RMB-denominated assets. This has certainly favored the use of the Chinese currency abroad, but it might have worsened the imbalances in private capital flows if the Chinese government and the Chinese corporates have borrowed in renminbi what deposited by foreigners. In such case, the amount of domestic currency generated by the conversion of foreign-currency-denominated exports and inward FDI does not decrease. More RMB-denominated borrowing by Chinese entities favors the internationalization of the renminbi, but increases the pressure on reserve accumulation and sterilization. To slow the accumulation of US dollar reserves and to limit the increase of money supply the former induces, the Chinese authorities should instead increase the amount of exports settled in renminbi as well as facilitate RMB-denominated outflows. For instance they could help foreign residents’ borrowing in onshore renminbi (through the so-called ‘Panda bonds’, which offshore parent companies of enterprises in the Shanghai Free Trade Zone will soon be able to issue) and in offshore renminbi; they could help Chinese residents’ investment of onshore renminbi abroad, as done, for instance, by the 2013 reform of the inter-company cross-border lending provisions and by the reforms of ODI of enterprises and individuals located in special economic zones.81

It is worth stressing that, to preserve some control over individual financial operations and the overall dynamics of the economy, the Chinese authorities have no other choice than to prevent that the offshore deliverable renminbi (CNH, CNT, CNS) is freely converted into onshore deliverable renminbi (RMB). The onshore rate (CNY) acts as an anchor for the offshore rates and, in turn, the CNH can impact on the onshore rate and on the central parity (Cheung et al., 2014).82 Failing to keep the two rates separate would be equivalent to relinquish the composite policy mix (i.e., capital restrictions, exchange rate peg, reserve sterilization, independent monetary and fiscal policies) that made the Chinese development possible (Bayoumi and Saborowski, 2014; Bonatti and Fracasso, 2014). This is another important reason why the internationalization of the renminbi cannot precede the liberalization of the capital account, as the authorities have claimed.

Notwithstanding much announced and implemented reforms, China is likely to stick to its past policy for some time ahead. It has deliberately opted for a ‘middle ground’ Aizenman and Sengupta (2013) configuration of the international financial trilemma (Obstfeld et al., 2010), and it can be

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81 Clearly, allowing greater USD-denominated private capital outflows is a third available option. Yet, this would require the liberalization of the capital account.

82 The CNH is typically traded at a premium to the onshore CNY (as revealed by the nondeliverable forward contracts), which is expected to appreciate (at an annual rate of circa 2-4% in 2014 and subsequent years).
effectively described as a ‘semi-open’ economy (Bacchetta et al., 2013). Accordingly, while several policy measures can be effective in expanding the use of the renminbi abroad, as well as in facilitating the entry of Chinese intermediaries in the international financial markets, they are likely to scratch the skin of the highly-regulated Chinese capital account. The most important element in the Chinese transition process will be the pace and sequencing of internal and external financial liberalization; the early internationalization of the renminbi will instead play, in my view, a rather limited role.

6.5. External and internal financial liberalization in China

The Chinese authorities recently announced a process of financial reforms that will lead to ‘basic’ capital account mobility by 2015, and greater exchange rate flexibility and more market-determined financial prices by 2020. Clearly, China cannot undertake a successful structural change process unless it simultaneously implements changes in three closely related realms: the domestic financial system, the regime of capital account convertibility, and its regulatory and oversight framework. However, the premature removal of capital controls can be extremely dangerous in an economy where adequate legal, regulatory and supervisory frameworks are not yet in place, and where the choices of domestic and financial actors are often distorted by administrative provisions and regulations, as well as by unabated expectations of currency appreciation.

China can already observe some unintended consequences of its partial reforms. The rapid expansion of shadow banking in China (addressed in Sections 5.1 and 6.2) is an example of the unwelcome effects from i) the asymmetric liberalization of domestic markets (whereby deposit interest rates are kept artificially low and savers resort to nonbank investment platforms) and ii) the establishment of local government financial vehicles to eschew legal requirements on public finances. Over-invoicing of exports and round-trip investment are the agents’ best responses to capital controls in the presence of an expected appreciation of the domestic currency. Similarly, over-investment and over-capacity can be traced back to bad risk management practices typical of institutions with poor corporate governance, and to generous State guarantees.

As anticipated in Section 6.4, the sequencing on the reforms in the external and the domestic side of financial transactions is one of the most delicate issues of the transition. Capital account liberalization without domestic reforms and exchange rate flexibility is counter-productive: in the face of low returns on domestic deposits and stable exchange rate expectations, large sums held in China would be transferred abroad in search of higher yields. Greater exchange rate flexibility, in turn, requires the liberalization of the domestic interest rates in order to preserve banks’ profitability and to contain speculative capital inflows. Banks are requested by the authorities to finance the public debt, buy the sterilization bills, and satisfy the SOE’s financing needs: these multiple requests are not compatible with domestic financial deregulation and capital account liberalization. China has so far opted for a ‘middle ground’ configuration of the international financial trilemma (Aizenman and Sengupta, 2013; Bacchetta et al., 2013). The best policy mix seems to be, on the one hand, greater reliance on market-based allocation of resources and, on the other hand, the preservation of control on a number of domestic and cross-border transactions. The Chinese piece-meal approach, focusing on small-sized experiments and market-specific interventions, reflects gradualism and a remarkable degree of local experimentation.
Several scholars strongly endorsed a pragmatic take on current account liberalization because historical precedents suggest that gradualism is the most appropriate approach to capital account liberalization. The Japanese experience suggest additional elements, in particular in light of a number of similarities between Japan in the early 1980s and present-China. The financial system in China is dominated by big banks and is also probably over-banked, two traits that characterised also Japan (Hoshi and Kashyap, 2000). Financial regulation, supervisory oversight and prudential regulations are not yet fully developed in present-China and neither they were in Japan until the late 1990s. In both countries, personal relationships, preferential treatment of State controlled enterprises, and political pressures impact on the allocation of credit across alternative uses and potential receivers. Thanks to domestic regulation and “policy guidance”, credit allocation in both countries has been geared toward rapid industrialization, in line with the national development plans.\(^83\) Finally, lower growth prospects and internal and external imbalances stand as the main determinants of the Japanese deregulation efforts in the late 1970s and 1980s as well as of the current Chinese attempts at reducing domestic financial repression in China. The situation in China may in fact be more complicated than that in Japan in the 1980s. The yen started floating against the US dollar after the collapse of the Bretton Woods system in the 1970s, that is several years earlier than when the capital account was opened up and the domestic financial sector started being liberalized. China, on the contrary, is called upon to open its capital account and float its currency basically at the very same time.

Taking stock on the Japanese experience, I point out that even a properly planned process of financial liberalization can find unexpected hurdles. The introduction of a secondary market for government bonds in Japan (in 1977-1978), for instance, altered the equilibrium between banks and securities companies and affected the money markets: this forced the authorities to accelerate the liberalization of the interest rates and the reform of other segments of the financial markets (Hoshi and Kashyap, 2000). This is not to say that any partial deregulation may lead to the unravelling of several other restrictions and controls in a way that is not consistent with the initial programme of reform. Rather, I argue that the removal of certain capital controls and restrictions cannot but alter the functioning of various domestic markets in ways that are hardly predictable. This, in turn, may complicate the attempt at keeping the ‘middle ground’ configuration of the international financial trilemma and the mix of monetary, financial, exchange rate and capital account controls in China.

It is worth noticing that the Chinese authorities must be able to influence bank lending to contain the costs associated with the sterilization of the official reserves. So far, administrative controls, moral pressure and market instruments have been used to this end, and bank lending was kept under the (indirect) control of the authorities.\(^84\) If the exchange rate will be maintained at an undervalued level and sterilization will continue to be undertaken, banks will be jeopardized by a bold liberalization of the domestic financial markets. There is a sort of trilemma involving depreciated exchange rate,

\(^{83}\)Credit allocation to facilitate capital accumulation in the industrial sector is a feature common to most Asian development processes. As Noterman (2014) put it, “convergence essentially boils down to the promotion of investment by means of credit creation. However, for sustainable convergence to result such credit creation must be channelled to activities that expand productive capacities rather than consumption or asset speculation”.

\(^{84}\)Besides setting benchmark interest rates for deposits and loans (with banks free to apply interests within a given band around the benchmark), the People’s Bank of China used administrative reserve requirements very actively and restricted lending activities through the allocation of credit quotas to banks.
sterilized international reserves and liberalized interest rates: the Chinese authorities cannot have the three of them at the same time. The liberalization of the domestic financial market will be hardly feasible until the current account surplus will be reduced.

Furthermore, the Japanese experience shows that the proper functioning of a dual system of interest rates is put at risk when the extent of capital account liberalisation provides local residents with opportunities to circumvent regulatory restrictions and to arbitrage domestically through foreign operations. This implies that the recent extension to new financial centers of certain Hong Kong’s prerogatives must fall short of actual capital account liberalization. As long as onshore and offshore markets will be connected only by authorised and highly-regulated institutions in mainland China, the measures to promote the internationalization of the renminbi and the establishment of the Shanghai Free Trade Zone will represent at most preliminary steps in a long process of change.85

The Japanese experience teaches also that the degree of State protection offered to financial institutions during a process of economic transition is very delicate. Too little protection may lead to systemic crises of confidence, but too much protection and forbearance favor risk-taking and excesses. Reducing the extent of State guarantees will require to draw light on the state of the local public finances in China and on the balance sheets of financial institutions. This might be extremely difficult from a political point of view. Similarly, the building up of a credible regulatory framework, the adoption of the best practices and the implementation of the rule of law may require more time and entail more political controversy than the liberalization of cross-border and domestic financial operations.

Finally, the Japanese history warns against rushing into a liberalization process during a period of low global interest rates. The liberalization of the exchange rate coupled with an expected appreciation and low external interest rates can possibly lead to very low nominal and real interest rates in China. These may in turn fuel those bubbles that, as unwelcome by-products of the stimulus plans, the authorities have just started to fight. Hence, the opening up of the capital account will likely accelerate once the nominal exchange rate will be close to its equilibrium level and when the global interest rates will be higher.

Despite all these cautious considerations inspired by the Japanese experience, the authorities announced to introduce greater flexibility in the exchange rate. However, one should confuse the level of the exchange rate and its tolerated variability. The liberalization of the Chinese currency is certainly facilitated by a period of increased, but still limited, volatility of the nominal bilateral rates. Accordingly, the widening of the daily trading band of fluctuation (introduced when the authorities moved from a peg to the US dollar to a peg to a basket of 12 currencies) from ±0.5% to ±1% in the spring 2012 and from ±1% to ±2% in mid-March 2014, can be interpreted as appropriate measures in this direction. Yet, they are just small steps because the central rate and the rate of appreciation of the renminbi are still determined by the PBoC. The authorities have fallen short of

\footnote{A bilateral equity market investment scheme between Hong Kong and Shanghai (called HK-SH Connect) was implemented in November 2014. This, as well as the Shenzhen Connect planned by the end of 2015, are considered necessary schemes to connect equity markets that would be, otherwise, low correlated. Their existence, as well as the scant success of the former in its first months of activity, suggest again that capital account liberalization is far from been accomplished.}
any commitment on the path of the daily fixing rate; if any, the authorities asserted their intention to preserve the stability of the exchange rate rather than its progressive appreciation. And so they did in 2014. This is consistent with the fact that, according to Premier Li Keqiang’s speech to the National People’s Congress on March 5th 2014, the liberalization of exchange rate is not a major priority for the authorities, whereas fiscal and financial reforms rank very high among the issues to deal with in 2014 and 2015. It is not by chance that, after such speech, the exchange rate has remained closer for some time to the lower, rather than the upper, band for the first time after May 2013.86

7. Saving and consumption

As argued elsewhere (Bonatti and Fracasso, 2010, 2013a), the compression of household consumption and high investment rates in China have been part and parcel of the export-led growth cum reserve accumulation strategy pursued by the authorities to push GDP growth. The undervaluation of the currency contributed to limit consumption of the tradable goods in which the country specialised and boosted the expansion of investment with a view to serving the foreign markets. As a matter of fact, this strategy accelerated overall GDP growth but negatively affected the share of income accrued to households falling over time to relatively low levels (Bai, 2013).

Many are the factors that contributed to constrain the take-off of consumption. At the microeconomic level, most Chinese people, after the ‘breaking of the iron bowl’, started facing high risks not covered by insurance and continued to suffer for those domestic frictions in the credit markets that typically penalize both households and small corporates. This provided incentives to save and limit consumption. The same holds for migrant workers who, because of discriminatory social provisions based on the hukou system, have received low compensation and afforded limited expenditures.87 The massive lay-off of redundant workers employed in the SOEs (circa 40 million) after their restructuring in the late 1990s and early 2000s also contributed to increase uncertainty and to reduce labor income. Similarly, the interruption of free allocation of residential apartments in the late 1990s and the introduction of private home ownership created strong incentives to save and invest in the residential sector. The share of income accruing to the households was constrained also by the limited impact of urbanization on farmers’ income due to the penalizing system of government’s land purchases. The increase in corporate profits (in particular SOE’s large undistributed profits) contributed to keep consumption low, through the compression of household income, and to push investment up. Profits, in turn, benefited of the favorable policy measures and regulatory distortions in the factor markets.

86 It is hard to assess to what extent the weakness of the Chinese currency in early 2014 is either the result of private investors concerned with a reversal of the appreciation trend, the worsening of GDP growth prospects, and local solvency problems, or the outcome of deliberate PBoC intervention to ‘teach’ the market not to exploit arbitrage opportunities (carry-trade-funded bank inflows into China) created by the predictable appreciation of the currency. The latter cannot be excluded given the pattern of central parity fixing for the daily trading band against the US dollar and the increase in domestic liquidity. Was this the case, one should add to the growing stockpile of non-performing loans also the offshore derivative products betting on the steady appreciation of the renminbi.

87 The household registration system requires individuals to register with the local authority at their place of birth. Local social security programmes (such as insurance schemes, education, and subsidized housing) are reserved to locally-registered people. Migrant workers are allowed to move toward, and settle in, areas where labour demand is higher; however, they do not acquire the full status of urban residents and do not enjoy several social services.
(Dorrucci et al., 2013), as well as of the high growth rate and of the opening up of the economy in the 1990s. As argued by Lee et al. (2012), an excess investment of about 10% has been financed through a hidden transfer of resources from the households for circa 4% of GDP per year, thereby reducing both the share of income accruing to households and their consumption possibilities. In sum, the contraction in the share of household income in GDP has been associated with a decline of almost all of its main determinants: labor income (because of structural change and because wages did not keep up with productivity in all sectors and areas), household capital income, and household business operating surplus.

All this suggests that the low and declining share of household consumption over GDP (from 46% in 2000 to 33% in 2010) is a distinctive, rather than an incidental, feature of the Chinese economy connected with the country’s development strategy. It can be easily noticed that most of the sources of subdue consumption are reflected in the distortions to factors prices and production decisions discussed in the Sections devoted to the Chinese growth strategy. Using statistics adjusted to account for various data-related problems, Bai (2013) finds that the share of household disposable income dropped considerably from 61.6% to 50.9% from 2000 to 2007, and this fall drove down also the share of consumption in GDP.

It follows that the Chinese growth strategy compressed private consumption without increasing households’ saving. On the contrary, public and corporate savings benefited the most from the redistribution of income across sectors.88 Domestic aggregate saving have been extraordinarily high thanks the very same factors that contributed to the compression of consumption and the expansion of corporate profits: the exchange rate undervaluation, the slow growth of wages, and pervasive financial repression favoring capital accumulation and limiting cross-country transactions (Brandt et al., 2013; Breslin, 2011; Xu, 2011). As claimed, the link between low consumption, high saving and investment rates, financial repression and exchange rate undervaluation in China has never been incidental.

It is unlikely that this situation will continue as it is in the future. The overcoming of the Lewis turning point, for instance, will drive wages up across the board and will increase the wage income share of GDP (at least as far as it will not be offset by further capital deepening and productivity enhancements). The gradual expansion of the social security net will limit precautionary savings and will raise public health expenditures, thereby subtracting public resources currently devoted to investment. The liberalization of the financial system will reduce the hoarding of idle deposits and will stimulate borrowing and spending to purchase durable goods. The expansion of wealth management products and a more even distribution of business profits will accompany the increase in household’s investment returns (and hence of income), whereas the appreciation of the exchange rate will produce positive terms of trade and income effects. The expected increase in old-age dependency ratio in the future may also contribute to reduce the aggregate saving rate, although the evidence on the old people’s propensity to save and consume in China is in fact mixed. Nonetheless, the increase

88 I am aware that the effective consumption share of GDP is subject to disagreement as the observed declining trend in the official statistics can be partially due to statistical problems and under-reporting (Huang et al., 2013; Wang and Woo, 2011; Bai, 2013). But even taking these into account, one would still find a long lasting declining trend of consumption share with marginal positive variation in the most recent years.
of the consumption share of GDP in China will not go unchallenged as it might be politically very hard for the authorities to directly or indirectly transfer income and wealth from the State sector and part of the corporate sector towards the households.

How does the Chinese situation compare with the Japanese experience? As I shall explain, relatively little. In the early 1950s savings were relatively scarce in Japan, a situation that forced the authorities to envisage specialised financial intermediaries to finance investment in key industrial sectors, to establish the Fiscal Investment and Loan Program with the same goal, and to force the Bank of Japan to lend to commercial banks to make them commit funds to the business sector. The social security system in Japan was kept intentionally weak so as to facilitate the accumulation of private saving. Japanese interest rates (official, deposit and loan rates) were maintained at low levels so as to facilitate rapid debt-financed growth in the industrial sectors. As this system was potentially conducive to excess demand for loans and to credit rationing, the commercial banks were ‘guided’ in the allocation of funds and special institutions had been set up to provide long term credit.

Saving started growing in Japan in the 1960s even though the saving-to-GDP ratio never passed 30%. After the reconstruction period, household savings increased further thanks to the growth of productivity and were forced toward the banking sector and then allocated to the business sector through a mix of market incentives, administrative measures and moral suasion. After a peak in 1970, the saving rate started falling. This declining trend was temporarily reverted in the second half of the 1980s, but it commenced again in the early 1990s. The factors that justify this progressive reduction of savings were the developments of productivity in the corporate sector and the returns on capital, the reduction of the fertility rate, the increase in lifetime expectancies and the improvements in social security.

This brief description of the Japanese situation accounts for a number of differences between Japan and China. First, the role of the exchange rate policy. While consumption repression has been in part due to the persisting undervaluation of the renminbi, a self-sustaining circle of expanding income and domestic consumption was driving the Japanese development in the 1960s and 1970s. A second major difference regards the role played by SOEs in China that, on the one hand, have been required to reinvest (rather than distribute) their profits and, on the other hand, have enjoyed facilitated access to bank credit. While ‘privileged’ enterprises and sectors (especially big businesses in heavy industries) can be found also in the Japanese experience, the big companies in Japan were among the leading actors in the rapid growth of productivity, whereas the Chinese SOEs have typically lagged behind the smaller companies. Japan got access to foreign technology through imports of capital goods and not through FDI (which were liberalized only in the 1970s) while China benefited mainly of massive FDI. This is another reason why the distribution of corporate profits of private corporates has been different in the two countries. Third, and differently from the Chinese strategy, the Japanese governments have for a long time limited the accumulation of foreign reserves and prioritized imports of foreign technology. This confirms what observed in Section 4: while exports did not contribute to the Japanese GDP growth in the 1960s and 1970s to the same extent, in a purely statistical sense, they contributed to growth in China, the outward orientation of certain Japanese industries favored technological progress and innovation. The large productivity gains allowed to increase wages while preserving the international competitiveness of capital- and
technological-intensive products. A pattern that, as said, has not taken place in China.

All this suggests that it is hard to maintain a realistic parallel between present-China and Japan in the 1960s and 1970s for what concerns the evolution and the level of savings, consumption and investment, in line with the different development strategies followed in their early stages of development.

8. The role of the State in the economy

8.1. Government budget and debt

In the reconstruction period after World War II, the Japanese government maintained a balanced budget. It was only with the serious recession in 1965 that, facing ineffective monetary stimulus, the government started intervening more actively. It was not only problems with the economic conjuncture that led to reconsider the role of the public finances: the post-war growth process, driven by investment and industrial transformation, was not sustainable and greater public consumption was perceived as necessary for a transition. Thus, even though the issuance of the first deficit financing bonds in Japan was contingently motivated by the fall in tax revenues following the recession, from 1965 onwards the Japanese government continued to issue public bonds. It must be recalled that, this notwithstanding, the debt over GDP ratio remained relatively small until at least the mid-1990s.

The first round of aggressive expansionary policy measures followed the Louvre accord when, in the attempt to close global imbalances, Japan agreed to expand internal demand (while the other partners accepted to stop the appreciation of the yen). Subsequently, the gross government debt was pushed up by the interventions in the financial sectors directed to nationalize large banks in trouble and to inject capital in other banking institutions. A very large investment package was also implemented to develop public infrastructure projects, which were meant to support the knackered construction industry (Yoshino and Mizoguchi, 2010). Public expenditures (also in social security), transfers to local governments, infrastructural investment, increasing interest payments, tax revenues losses and support measures to the financial sector made the gross public debt grow unfettered over time: in terms of GDP, public debt reached 150% in 2000 and touched 200% at the end of the 2000s. In parallel, the share of claims of the Japanese banking sector on the public and private sectors changed over time, with the share of the public sector passing from 23% in 2001 to more than 30% in 2005.

Notwithstanding the different historical circumstances, it is possible to envisage some similarities between the Chinese reaction to the global financial crisis and the Japanese response to its problems in the late 1980s. As Japan then, the Chinese authorities in 2008/2009 promoted a large investment programme (and additional, smaller, ones in 2013 and 2014), and encouraged the local authorities to do the same (even at the cost of accepting an expansion of shadow banking and total social financing). Thus, besides the risk of insolvency of local banks and non-banking lenders, China is facing other risks that also Japan got trapped in: the distortion of financial intermediation, the lock-in effects of low interest rates and abundant liquidity, and the worsening of credit allocation notwithstanding the authorities’ commitment to rely more on market-based signals.

A major role will be played by whether the Chinese residents will exhibit the same home-bias and risk-aversion that characterised the Japanese investors. Despite a runaway fiscal deficit and
ever growing outstanding bonds, the Japanese savers showed to be happy with receiving low returns and a very limited compensation for the risk of default (more details in Hoshi and Ito, 2013, 2014). Besides the lack of alternative investment opportunities in a stagnating economy, an important factor explaining the extraordinary home-bias of the Japanese financial institutions’ decision to keep accumulating government bonds is the banks’ capital adequacy regulation establishing that government bonds were assigned zero weights in calculating the risk-weighted assets. Whether the same will occur in China, in turn, will depend on the alternatives the investors will be given and on what extent China will become more integrated in the global financial markets. This is another reason why capital account liberalization and the reform of the domestic financial system are directly connected with the evolution of the Chinese public finances during the transition. Also this suggests that, as argued above, the capital account liberalization will follow the complex reform of the domestic fiscal system.

8.2. State interventionism

In the post-war reconstruction period Japan adopted a series of five/ten-year long Economic Plans to guide the development of the economy. Yet, the Japanese economy was functioning on market-based principles. This apparent contradiction can be explained by the nature of these economic plans: they were meant to diffuse government’ views, forecasts and goals among citizens and business actors, and not to set goals against which the entire activity of the State would have been benchmarked.

Informal administrative guidance provided by the government was the focal point for the coordination between and within industry-wide business associations.\textsuperscript{89} The first plan was the ‘Economic Self-Reliance Five-Year Plan’ in 1955 whereas the most famous one is probably the ‘Doubling National Income Plan’ adopted in 1960. As the name suggests, the target of this plan was to double national income in real terms by the year 1970, and this broad goal was achieved.

While the first four Plans mainly concentrated on income growth, those from the fifth Plan onwards addressed social and environmental problems, as well as the international aspects of development. With the oil crisis in the 1970s, the attention of the authorities turned on energy-related problems. After the 1980s, these economic Plans became increasingly formal; they started focusing more on the government reform agenda and stopped covering the expected medium-term development patterns of the entire Japanese economy.

Since 1953 the People’s Republic of China has adopted five year plans to drive social and economic development: these plans reflect the views of the Communist Party (the plenary sessions of the Central Committee) and of the National Congress. These plans are broad and far reaching and they set targets and priorities, both at the national and regional level, against which local and central officials are evaluated. Accordingly, planning in China does not simply serve to catalyse the private and public sector initiatives around shared and coordinated objectives. It is a key feature of a highly

\textsuperscript{89} To a certain extent, this account may recall to mind another example of successful ‘embedded market economy’, that is the German ordoliberal social market economy. Though interesting, I shall not dwell on the similarities and differences between these two systems here.
centralized economy.\(^{90}\)

Notwithstanding the fundamental differences in scope, depth and strength of Japanese and Chinese plans, one can notice certain similarities among the countries. Both countries started moving the focus of the medium-term development plans from income growth to other social and economic goals, only once labour mobilization and the first phase of structural change was achieved. In both countries, moreover, the economic plans and the various State interventions changed over time to reflect both the progress achieved and to ensure more balanced and sustainable environments. Yet, it would be wrong to focus only on the multi-year economic plans to evaluate the role of the State in Japan and in China.

As pointed out by Murakami (1992) and discussed by McKinnon and Ohno (1997), the Japanese development process until the 1970s was characterised by a nationalistic industrialization drive, pushed by the targeted interventions of the government directed to pursue long-term development goals. This state of affairs has been called ‘Developmentalism’.\(^{91}\) The main traits of Japanese developmentalism were the priority attributed to building a competitive State-led industrial sector (able to move up the value chain from heavy industry to more advanced sectors), the establishment of good public institutions, and a generous redistributive system of regional and personal transfers (especially towards the rural areas) with the intent of preserving social cohesion in the face of the greater gains accruing to the more industrialised areas.\(^{92}\) The very presence of developmentalism, it has been argued, complicated the process of structural change after Japan had become a high-income country. Differentials in sectoral inflation and productivity rates, for instance, led to a steady divergence between traded and non-traded goods inflation rates, which reflected the preservation of a dichotomous economic structure: on the one hand, an efficient export-oriented manufacturing sector and, on the other hand, a less efficient but labor-intensive service sector. High regulatory barriers to entry, which were essential in the first phases of the development process to avoid the by-products of uncoordinated initiatives, have been preserved for too long and have contributed to the following economic slack (by limiting foreign competition and domestic initiatives which would have been the bulk of a ‘more spontaneous’ development process).

Many scholars argued that also China exhibits the features of a developmental State (see for instance Knight and Ding, 2012; Knight, 2014) and that the Plans have been important instruments through which the authorities influenced the path of development.\(^{93}\) Yet, China has not always been a developmental state. The presence of central planning was certainly a signal of State interventionism, but has for long fallen short of the definition of developmentalism. Up to the reform period started in 1978, in fact, the Plans did not produce high growth in income per capita due to the inherent problems of central planning, as well as the organisation of the State and of the Party. As noted

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\(^{90}\) Even though the plan has been recently re-named ‘guidelines’, it serves the same functions.

\(^{91}\) See Knight (2014) for a discussion of the origin of the term.

\(^{92}\) This reminds of the motivation for a Cohesion Policy in the European Union. As market integration is conducive to uneven outcomes over the Union (Community at that time), a system of transfers proved to be necessary to avoid club convergence and to ensure that the political support for further integration would not be eroded by a diffuse perception of uneven and unfair distributive effects.

\(^{93}\) Baek (2005) finds that China follows the East Asian development model and in particular that, due to the dual structure of the economy (in terms of public and nonpublic sectors), it shares a large number of features with Taiwan.
by Knight (2014), “politics, and not economics, was in command” (p. 1336). Therefore, somehow paradoxically, China started acquiring the features of a successful developmental state only with the beginning of the economic reform process, when growth promotion truly became the overriding policy objective. It was only after 1978 that the political system was also modernised (e.g., introduction of educational qualifications, cadre training, and the like) with a view to producing a more coherent and coordinated framework, conducive to higher growth.

One should notice that the emphasis put on the management of the macroeconomic environment in China finds a peculiar motivation in the decentralized nature of the government, whereby the authorities at all governmental levels contribute to design and implement macroeconomic and industrial policies. The involvement of the public authorities in the economy has been widespread and far-reaching at the local level and the Five-Year Plans have always been translated into local objectives and activities. This has entailed that the importance attributed locally to the various goals and objectives enshrined in the national Plans varied in accordance with the different economic and social conditions in the various provinces. Because of this set-up, it was necessary for the central authorities to find policy tools which they could directly manoeuvre: this helps to account for the overwhelming importance attributed to the exchange rate, the management of capital flows, and the national banking regulation in the first phases of the catching up process. The central leadership was better positioned to exercise control over such instruments than to manoeuvre the tools shared with local governments. This is part and parcel of the institutional approach (including state appointments, promotions, demotions, and rotation) adopted to achieve nationwide goals while dealing with a decentralised but non-federal system (Xu, 2011). Clearly, the Japanese developmentalism did not exhibit any of these features.

The expansion of the private business initiatives in China started in the 1980s in the rural areas, and was followed by the creation of larger private enterprises out of the transformation of SOEs and collectives enterprises into private ones. Over the decades, the progress made by the private sector in China is patent. Du et al. (2014) calculate that the number of the individually owned businesses passed from about 100 thousand in 1978 to 10.9 million in 2010 and that the private sector turnover increased by more than 30% over the last decade. This is even more remarkable given that it was only in 1999 that a constitutional amendment formally recognized the existence of such sector.94 One has also to consider the background against which such progress occurred: non-financial firms could be established as entities with own assets and risks only after the 1994 Company Law, and individuals and companies enjoyed limited rights until the late 1990s as it is only with the State Compensation Law in 1995 that citizens were given the right to sue the State.

The scale of the ‘Guo Jin Min Tui’ phenomenon (approximately, ‘the State sector advances and the Private sector retreats’) in China is still the object of much political debate and academic research. While the State sector has shrunk in terms of size, it has retained vantage positions such as those illustrated in the case of State-controlled banks and SOEs. The third plenary session of the Communist Party of China’s 18th Central Committee and the new leadership provided several indications that

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94 This, together with other factors, helps to explain why little bank credit is directed towards private firms, which rely on self-financing and informal channels as illustrated in Section 6.
China will proceed with pro-market reforms. But to implement such reforms, the authorities continue to proceed with caution, selecting a number of priority measures and implementing them gradually and preferably on a small scale, as the Chinese tradition recommends. For instance, in 2013 the State Council decided to open the financial sector to private capital through the establishment of private banks bearing their own risk. This decision was made operational in 2014 through a pilot program involving only five banks (situated in Tianjin and Shanghai municipalities, and Zhejiang and Guangdong provinces) and operating on a trial basis for a period. Similar cautious moves have been made on the public financing side: the State Council approved a pilot program to permit a limited number of local authorities (i.e., Guangdong Province, Shanghai Municipality, Shenzhen Municipality, and Zhejiang Province) to issue medium term bonds under the supervision of the Ministry of Finance. Similar steps will have to be taken to open up the most lucrative and closed sectors, such as utilities and telecommunications, where SOEs and foreign investors enjoy a vantage position, greater freedom of manoeuvre, and preferential tax provisions (Du et al., 2014). The launch in 2014 of public-private partnership projects for the joint financing of local infrastructure projects goes in the direction of reducing both the excessive leverage of SOEs and SCEs, and containing the growth of local public debt.

Though in different ways over time (as shown by Naughton, 2008), the Chinese authorities have managed to reform the economic system while simultaneously adjusting the institutional and political framework through gradual, well-sequenced and coherent reforms. In so doing, the interests of national and local authorities, as well as domestic and foreign businesses, have been kept aligned with the goal of promoting high growth. In the future, however, Chinese developmentalism can hardly continue as in the past: risks of social and financial instability, environmental stress, distorted incentives, macroeconomic and financial excesses, and widespread corruption led the incumbent authorities to acknowledge explicitly that various profound reforms are needed. As mentioned before, in a nutshell these are: i) reduced emphasis on overall and local GDP growth, ii) facilitation of internal economic rebalancing, iii) promotion of life satisfaction and of social stability, and iv) greater reliance on market-based mechanisms for resource allocation. While developmentalism will likely be gone in few years, State interventionism will probably continue for a longer period of time. Sure, the Chinese economy will mature and possibly assume more and more traits of a free market economy. Similarly, the role of the government will change and, as it happened in Japan, it will eventually serve primarily as catalyst and coordinator of the private sector’s initiatives. What remains to be seen, as mentioned in previous Sections, is how smooth the process of transformation will be given that the preservation of the Party’s prerogatives requires that it continues to wield enormous influence on the economy and on the society. This implies that the retreat of the State from the economy is conditioned upon a profound political and institutional transformation which has no precedent in Japan and in other advanced economies.

9. Closing remarks

The Chinese development process exhibits several peculiar traits and both the forces underpinning the expansion of such big an economy and the speed of growth make it an unprecedented phenomenon.
Now that it has taken o

China faces a daring challenge, that is transiting to a new growth paradigm without jeopardizing social and political stability. At first sight, there seems to be a widespread agreement on what the authorities should do to facilitate the transition: liberalizing the international capital account, floating the exchange rate, deregulating the financial sectors, boosting households’ income and consumption, reducing over-capacity, addressing personal and regional inequalities, and the like. In fact, the speed and the sequencing of the reforms remain highly controversial issues. Moreover, even when reforms appear straightforward from an economic viewpoint, there are political and institutional aspects that cast doubts on the feasibility and the opportunity of certain choices.

Looking at the experience of other countries that in the last century achieved a high level of income appears a useful exercise. However, it requires care for one needs to distinguish the features and the mechanisms driving growth in the different phases of the graduation process in the various countries. In this work I develop a parallel between the Japanese and the Chinese growth experiences. Indeed, Japan modified its growth strategy several times after the end of World War II; the first time, at the end of the reconstruction period, that is after the mobilization of surplus labour into the modern sectors of the economy; subsequently, in the mid-1980s to address the dramatic appreciation of the yen; finally, in the 1990s after the burst of the real estate and stock exchange bubble of the late 1980s.

To be sure, I do neither claim nor strive to show that the processes in China and Japan are similar. Rather, I look at the Japanese experience to draw insights that may help the understanding of the prospects of the Chinese economy. Here I cover the entire Japanese economic history after the war, thereby tackling and extending previous similar studies that focused on shorter spans of time, and identify the similarities and the differences between the two countries in various decades. These are synthetically presented in Table 1 in Section 2, on which I do not dwell again. Rather, in these closing remarks I summarize the most relevant insights from the analysis of the Japanese development experiences for the ongoing transformation of the Chinese economy.

First, the parallel between China and Japan helps to appreciate the daunting task faced by the Chinese authorities: China just reached (and probably passed) the Lewis turning point and has to modify the growth model away from external demand and toward the domestic one. In doing so, it has to reduce investment in relatively low-productive activities and boost households’ income and consumption. This was not the case of Japan in the late 1950s and 1960s: Japan reached the Lewis turning point without endorsing a fully-fledged export-led growth model, a strategy that, instead, it embraced after its first structural transformation in the 1970s. Currently, the financial sector in China is experiencing various problems due both the domestic regulatory framework and to the legacy (in terms of nonperforming loans) of the stimulus plans adopted by the authorities to counteract the negative effects of the global financial crisis. This recalls what happened in Japan but, again, the situation was in fact different. Japan had to deal with financial problems only at a later stage of development because the Japanese authorities reacted to the Plaza accord and the abrupt appreciation of the yen when the domestic financial sector was in relative good shape. This does not hold for China. This is a point that most observers fail to consider: the increase in nonperforming loans in the Japanese banking sector was the by-product of the rapid modification in the growth strategy away from exports and of an incomplete and lopsided financial deregulation, which in
turn fuelled a real estate bubble. China, on the contrary, is facing problems in the banking sector before embarking into the transformation of the growth model, simply out of its strong expansionary reaction to the contraction in global demand in 2008. By the same token, the expansion of public debt in Japan occurred relatively late, whereas the central and local authorities in China have already started expanding the liabilities that, directly and indirectly, accrue to the State. In sum, the parallel between China and Japan suggests that the Chinese authorities have limited ammunitions to accompany the transformation process and to counteract endogenous setbacks and exogenous shocks.

The second insight from the analysis regards the financial liberalization process. Differently from Japan, China has always pushed for the internationalization of the renminbi while preserving tight controls on its capital account. This is a very peculiar strategy from which unprecedented challenges will stem. The internal and external segmentation of the Chinese financial markets is very high and, as happened in Japan, floating the currency and removing the capital controls may lead to counterproductive results if such segmentation remains in place. The various small and localized experiments of liberalization that the authorities have implemented so far should not be misleading: their success has revolved around the preservation of tight controls, high segmentation in other segments of the financial markets, and the like. Even the functioning of the much acclaimed Shanghai Free Trade Zone will depend on the realization of a sort of synthetic off-shore market within China, not on the opening up of the domestic markets. On the one hand, the Japanese experience shows that the partial removal of the financial restrictions may lead to unpleasant outcomes, in terms of both structural change and financial stability. On the other hand, an abrupt and full liberalization of the financial markets in China is incompatible with a gradual appreciation of the currency and with the maintenance of a political ‘guidance’ on the economy. Thus, the pace and the sequencing of internal and external financial liberalization will remain among the most delicate issues during the transition. Even though the Chinese authorities will move gradually on this in the attempt to avoid large shocks to vital sectors of the economy and with a view to preserving the consensus of the forces supporting the Party, they will face the numerous problems that a gradual liberalization of the financial markets will bring about. The Japanese experience is not entirely useful to understand what to do in China, given the entirely different backdrops against which the financial liberalization has taken place; nonetheless, it may be informative on the mistakes to avoid and it reminds about the importance of monitoring the effects of any implemented reforms.

The last insight I shall like to draw here regards the measures that the Chinese authorities will likely have to take in order to address the problems currently mounting in the regular and shadow banking sectors. First, the Japanese experience shows that the authorities should appreciate the long-term risks of investment booms even when these latter seem beneficial for growth in the short-term. Belated corrective interventions in the aftermath of a burst are more costly and less effective that pre-emptive measures. Second, failing to fix the regulatory, monitoring and judicial systems may prolong problems and, as happened in Japan, can alter the effects of any, even well-intended, policy measures. The problem is clearly that such reforms risk denting the basis of political consensus, as they hit vested interests and State-controlled companies. The fragile shape of local public finances suggests additional care as it adds a layer of complexity; again, rather than a reason for postponing reforms, it is an additional motivation to undertake bold actions with a view to preventing further
stress on public finances in the future. The Japanese experience shows that, should a crisis erupts, the Chinese authorities will have to respond more promptly than the Japanese ones did in the early 1990s: their belated reaction contributed to lengthen the adjustment process. Finally, the authorities in China must learn from Japan that the liberalization of the financial system cannot co-exist with the maintenance of implicit requirements to align banking and financial activities along with national economic policy and governmental instructions. Notably, this is not a call for a massive financial deregulation and, rather, it is appropriate that the Chinese authorities should preserve some control over the sector during the transition period: rather, the recommendation is that they use such control to tame the ‘animal spirits’ and to prevent speculative excesses rather than boosting the economy beyond potential and protecting under-performing sectors.

My emphasis on authorities and policy-makers in China should not suggest that I underestimate the importance of the private sector in the transition process. This is certainly not the case. However, China has still the traits of a developmental state and a successful transition cannot materialize in the absence of an adequate and timely array of economic, social, and political reforms. Accordingly, international and domestic politics will likely play a crucial role in the upcoming years. This falls beyond the reach of my economic analysis and calls for further, interdisciplinary, work on this delicate aspect of the Chinese transition process.

10. Acknowledgments

I would like to thank Mamoru Nagano for inspiring conversations and useful suggestions regarding the Japanese economy. I owe a debt of gratitude to Peng Bin, Luigi Bonatti, Barbara Barone, Ton Notermans for insightful suggestions. I acknowledge the financial support of the School of International Studies at the University of Trento, and the hospitality of the Centre for Asian and Pacific Studies at Seikei University (Tokyo, Japan), where I was visiting research fellow in April 2014.
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