

**The Political Economy
of the Sino-American Imbalance**

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Abstract

This thesis explores the development of the Sino-American imbalance between the mid-1990s and 2007. Addressing this issue, most mainstream economists have mainly concerned themselves with whether it is a natural reflection of cross-country differences in underlying ‘market fundamentals’ or an outcome of ‘misguided’ state policies which require corrective policy actions. On the other hand, international political economists have focused on its implications for inter-state power relations: whether it is a reflection of the US’ lasting hegemonic power based on the unique status of the dollar or a symptom of the rise of China as a new centre of the global political economy. In distinction to these existing views, this thesis focuses on the fundamental *social foundation* of the Sino-American global imbalance with the help of an Open Marxist account of capitalist social relations, and interprets the phenomenon as a form of the contradictory process of capital accumulation mediated by states’ economic policies.

By analysing the social context of the contradictory rise of China as a surplus-running ‘factory of the world’ together with the contradictory rise of the US as a debt-ridden ‘consumption market of the world’ from the mid-1990s, this thesis lays out three arguments on the nature of the Sino-American imbalance. First, it is argued that what is called ‘misguided’ policies were employed by each state as a governing strategy securing reproduction of social relations in the face of an accumulation crisis, and thus the root cause of the imbalance was not the policies themselves but the crisis-tendency inherent in the capitalist mode of production. Second, this thesis argues that the imbalance was managed through *de-facto* international cooperation between the global centre of production (China) and the global centre of circulation (the US) which are mutually dependent in sustaining accumulation within their respective territories. Third, this thesis maintains that the cooperative relations conducive to sustaining growth in the form of a growing bilateral imbalance were fundamentally contradictory relations, helping productive forces in China maximize themselves without regard for the limited markets, and at the same time allowing credit in the US to expand regardless of the debtors’ ability to service the accumulated debts, thus amplifying the possibility of a crisis on the world market. Consequently, the Sino-American imbalance was a perverted form of international cooperation between China and the US for sustaining accumulation and securing reproduction of capitalist social relations.

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Declaration

I hereby declare the work presented in this thesis to be my own and none of the work has been submitted for any academic degree or award.

All sources of quoted information have been acknowledged by mean of reference.

Chapter 1 Introduction

One of the most prominent features characterizing the world economy from the mid-1990s was a historically unprecedented build-up of external imbalances known as ‘global imbalances’. Indeed, on the eve of the global financial crisis of 2007, the sum of international current account imbalances amounted to close to 6% of global GDP, approximately three times the level that it stood in 1996¹ (Blanchard and Milesi-Ferretti 2009, p.7). As a reflection of the cumulative current account imbalances, from 1996 to 2006 the world’s total net foreign asset positions had nearly doubled from 5.4% to 10.4% of global GDP (Bracke et al 2010, p.1140).

The trend of widening global imbalances during this period was in large part driven by two global economic giants: the US and China. Between 2001 and 2006, for instance, the US had absorbed more than 90% of the world’s total surplus savings while China had surpassed Japan to become the world’s largest net exporter taking more than a quarter of the world’s total current account surpluses (Li 2008, pp.78-79). This reflects the persistent growth of the US as the centre of global deficit financing of demand, forming a deepening bilateral imbalance with China which dramatically transformed itself into the factory of the world from the mid-1990s. In that the peculiar evolution of the two economies and their cumulative bilateral imbalances played a leading role in forming the widening pattern of global imbalances during the period, the global imbalance was in effect the ‘Sino-American global imbalance’². This thesis explores the development of the Sino-American global imbalance, focusing on its social foundations.

The Sino-American global imbalance has been an issue of intense discussion across the disciplines. Among mainstream economists, attention has been focused on whether it is a

¹It was also double the previous highest level recorded in the mid-1970s (Bracke et al, 2010, p.1144).

²In most of discussions of the issue, indeed, the bilateral imbalance between the US and China has been regarded as a prototype of the global imbalance in general. See Eichengreen (2006); Yongding (2007), pp. 3-23; Foot and Walter (2011), pp.79-132; Li (2007), Lin et al (2010), Sharma (2010), Hung (2009).

benign by-product of deepening globalization and thus efforts to reduce it are misguided or whether it is a malign effect of misguided policies and rebalancing policies are therefore required. On the other hand, international political economists tend to address the question as to whether it is a reflection of the US' persistent structural monetary power or a symptom of the hegemonic shift from the US to a new centre of the global economy, China. This thesis does not endorse one of the existing views but instead explores the social foundations of the Sino-American imbalance with the help of a Marxist perspective. In other words, this research aims to explain how the crisis-ridden capitalist social relations of production manifested itself in the form of the Sino-American global imbalance. The scope of this research is limited to the period *until* 2007 as the object of study is the development of the Sino-American global imbalance, rather than one of its effects: the global economic crisis since 2007.

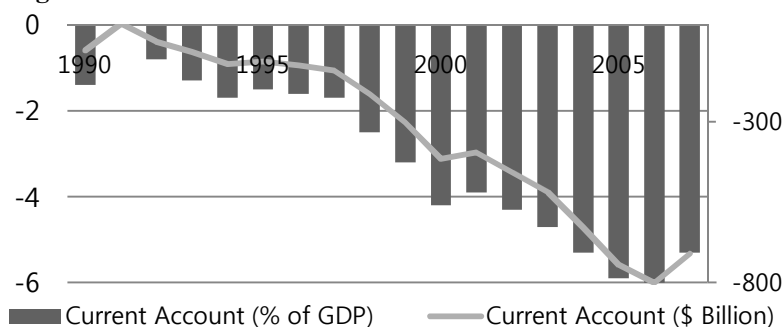
Before touching on the gist of existing approaches and briefly introducing the core argument of this thesis, the following section begins by outlining the Sino-American imbalance in terms of sheer magnitude in order to illustrate the general trend of the imbalance during the period under study.

1. The Sino-American global imbalance in numbers

It is well known fact that the main contributor to the mounting pattern of international current account imbalances was the world's biggest economy: the US, whose current account deficits have grown dramatically since the mid-1990s. Figure 1.1 shows that from a point close to zero in 1991, the US current account deficit rose to 6.1% of GDP or \$811 billion in 2007, the largest deficit the economy has ever recorded³. Between 1995 and 2007, as much as 86% of the world's total current account deficit was accounted for by the US alone (Li, 2008, p.79). As a result of the large and persistent current account deficit, as Figure 1.2 indicates, the US net international investment position (the difference between the value of US-owned assets abroad and foreign-owned assets in the US) continued falling to the point at which net foreign liabilities reached approximately 20% of GDP, making the US by far the world's largest net debtor.

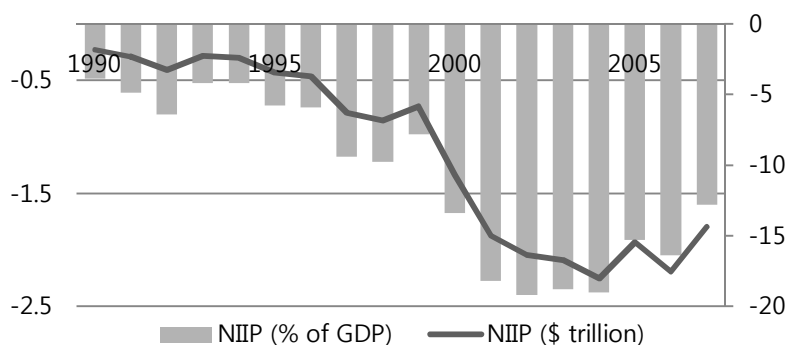
³ According to Edwards (2005, p.222), since 1971 the US has been the only large industrial country running deficits of over 5% of GDP (the tipping point at which adjustments used to follow).

Figure 1.1. US current account deficits between 1990 and 2007.



Source: U.S. Bureau of Economic Analysis, *National Accounts*, <http://www.bea.gov/national/index.htm> (accessed October 2012).

Figure 1.2. US net international investment position between 1990 and 2007.



Source: U.S. Bureau of Economic Analysis, *International Investment Position*, <http://www.bea.gov/international/index.htm#iip> (accessed 5 May 2010)

Another main pole of the growing global imbalances was China which emerged as a global factory during the period between 1990 and 2007. From the mid-1990s, China, the world's fastest expanding economy, and the world's largest recipient of FDI, was also becoming the world's largest exporter. Indeed, as Figure 1.3 shows, while the share of the US in the world export market continued falling, China rapidly enlarged its share and finally overtook the US prior to 2007 (Prasad 2005). As a mirror image of the trend, from the point of near zero around the mid-1990s China's current account surplus reached a peak of 10.1% of GDP or \$353 billion in 2007 (see Figure 1.4). Between 2001 and 2007, China had become the world's largest source of surplus savings, contributing approximately one-quarter of the world's total current account surpluses (Li, 2008, p.79). As Table 1.1 indicates, the large and persistent current account surpluses resulted in a massive accumulation of official foreign reserves. The level of reserve holdings in 2007 surpassed

those of Japan and reached a massive \$1.5 trillion, equivalent to 43.7% of GDP, making China the world's largest holder of foreign exchange reserves⁴.

Figure 1.3. World export shares by major exporters between 1997 and 2007 (%)

Source: WTO, *International trade statistics* (2011)

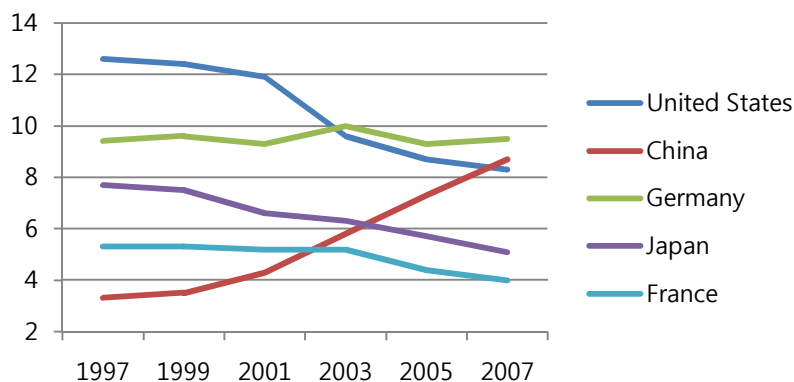
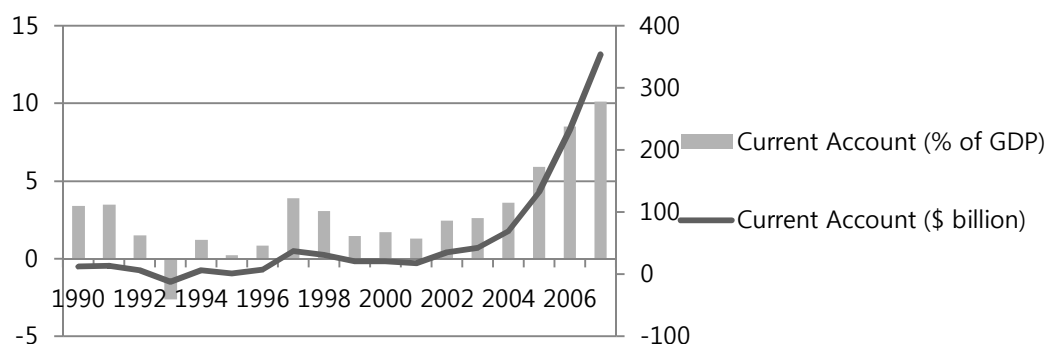


Figure 1.4. China's current account between 1990 and 2007



Source: National Bureau of Statistics of China, *China Statistical Yearbook* (2007), <http://www.stats.gov.cn/english/Statisticaldata/AnnualData/> (Accessed August 2012).

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Gross foreign reserves	143.4 (15.0)	149.8 (14.7)	158.3 (14.6)	168.9 (14.1)	218.7 (16.5)	295.2 (20.3)	412.2 (25.1)	618.6 (32.0)	825.6 (36.8)	1,072 (40.8)	1,534 (43.7)
Change	34.9	6.4	8.5	10.5	49.8	76.5	117.0	206.3	207.0	247.0	461.7
Note: Figures in parentheses are % of GDP, Source: China Statistical Yearbook (2007)											

⁴As of December 2007, China accounted for 23.9% of the world's foreign exchange reserves (IMF *International Financial Statistics* 2008).

One clearly visible factor that made the US and China the two main poles of the global imbalance was an ever-deepening bilateral trade imbalance between the two countries. Indeed, a large part of the US current account deficit was due to the rapidly growing trade imbalance with China, as shown in Table 1.2 Importing five times as much from China as the US exported to the country, the trade deficit with China amounted to \$256 billion or 31.7% of the total US trade deficit in 2007 (it was about two-and-a-half times the equivalent deficit with Japan, which ranked second). For China, the massive trade surplus with the US was the largest source of the total trade surplus, and thus the current account surplus. For instance, China's trade surplus with the US accounted for 62% of China's trade surplus in 2007, which was equivalent to about 5% of China's GDP in that year.

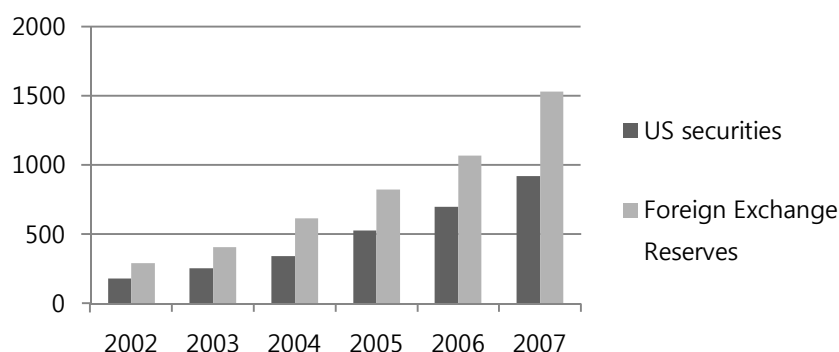
	1986	1989	1992	1995	1998	2001	2004	2007
Exports	3.1	5.7	7.4	11.7	14.2	19.2	34.7	65.2
Imports	4.7	11.9	25.7	45.5	71.1	102.3	196.7	321.5
Balance	-1.6	-6.2	-18.3	-33.7	-56.9	-83	-162	-256.3

Source: U.S. Bureau of Economic Analysis, *Trade in Goods and Services*, <http://www.bea.gov/International/Index.htm> (accessed 5 May 2010).

This deepening bilateral trade imbalance was accompanied with a peculiar financial relation between the two countries. While the US was the largest purchaser of Chinese commodities, China was the largest purchaser of US financial assets. As Figure 1.5 shows, a large portion (estimated 60-80%) of China's foreign exchange reserves was reinvested in US-dollar denominated assets (Setser 2007, p.11). The size of purchased US assets was large enough to draw attentions; for example, in 2007 the Chinese monetary authority purchased about 24% of total long-term Treasury securities and 29% of total long-term government agency securities (including debt issued by Fannie Mae and Freddie Mac) equivalent to \$900 billion (Morrison and Labonte 2008, pp.4-5). These cross-border flows of money from China to the US played an important role in raising the value of US financial assets, allowing both the government and private sectors to finance an increasing amount of spending without a serious financial burden, thereby bringing about a greater current account deficit with China.

Figure 1.5. China's Holdings of Foreign Exchange Reserves and U.S. Securities: 2002-2007 (\$ billions)

Source: US Department of the Treasury (2009).



In spite of growing concerns about the sustainability of imbalanced growth patterns, the mutually-reinforcing bilateral trade-financial relations made it possible for the US and China to sustain a debt-financed consumption boom and an export-investment-led growth model respectively, enabling them to play the polarized roles of an increasingly dominant global consumer on the one side and a global factory on the other side. Based on this consideration, the global imbalance that developed from the mid-1990s can be referred to as ‘the Sino-American global imbalance’.

Addressing this issue, mainstream economists have mainly concerned themselves with whether it is ‘benign’ or ‘malign’, that is, whether it is a natural reflection of cross-country differences in underlying ‘market fundamentals’ or an outcome of ‘wrong’ policies and related risks which require corrective policy actions. On the other hand, international political economists have focused on its implications for inter-state power relations: whether it is a reflection of the US’ lasting hegemonic power based on the unique status of the dollar or a reflection of the rise of China as a new centre of the global political economy. In distinction to these existing views, this thesis aims to explain the fundamental *social foundations* of the Sino-American imbalance with the help of an Open Marxist account of capitalist social relations.

2. The Sino-American imbalance in theoretical perspectives

The spectacular development of the Sino-American imbalance has attracted much attention from scholars across the disciplines, and there are a variety of views put forward to account

for the phenomenon.⁵ Traditionally, topics related to global imbalances have been a central theme in mainstream economics. Among others, Keynesian-inspired economists (Cline 2005; Rajan 2005; Stiglitz 2006; Eichengreen 2006; Mussa 2007; Krugman 2009; Lardy 2008; Akyuz 2011) tend to see the phenomenon in relation to the government policies that, from their perspectives, have failed or neglected the management of domestic macroeconomic balances between aggregate consumption demand and productive capacity. Specifically, they point towards the Chinese government's 'misguided' pursuit of crisis-ridden export-investment-led growth that had long repressed the household sector's disposable income growth, while, on the other hand, criticizing the US government's 'reckless' employment of exceptionally expansionary monetary-fiscal policies leaving excessive debt-financed spending sprees to take its own course for too long. Warning that a disorderly adjustment would inevitably follow the ever-growing imbalance, they emphasize the necessity of a set of corrective policies coupled with close international policy cooperation (i.e. a combination of fiscal policies and exchange rate policies such as the Plaza Accord) capable of smoothly realigning the level of national consumption demands to productive capacities in each country.

Neoclassical-inspired views (Copper 2004, 2005; Corden 2005, 2007; Ferguson 2005; Greenspan 2007; Poole 2004; Feldstein 2008; Valderrama 2008; Caballero 2005), on the other hand, give more attention to the benign aspect of the imbalance. They believe it is natural or even desirable for countries with different patterns of savings that reflect different economic fundamentals (e.g. demographic patterns, the rate of return on capital, and maturity of financial systems etc.) to have current account imbalances, for it means each rational market participant (either public or private actors) is allowed to seek 'inter-temporal utility maximization' on a global scale. From their perspectives, the large size of the Sino-American imbalance was a fruit of integrated global financial markets that had made it possible for rational Chinese savers and rational American borrowers to cooperate with each other. Distrusting policy suggestions for 'adjustment' as an act of sacrificing economic rationality, they emphasize the mutual benefits derived from the imbalance, that

⁵For an overview of diverse views on the global imbalances, see Eichengreen (2005, 2010); Iley and Lewis (2007); Obstfeld and Rogoff (2009); Teunissen and Akkerman (2006); Bracke et al (2010); and Bordo (2005).

is, the benefits of Chinese savers acquired from the highly developed, secure, and more profitable US financial markets, along with US borrowers' benefits from cheaper Chinese credits with which they could finance either consumption or other profitable financial activities overseas.

Meanwhile, the unique and dynamic character of the growing Sino-American imbalance has also attracted attention from the field of international political economy (IPE). Among others, critical IPE theorists (Strange, 1986, 1987; Kirshner 1995; Cohen 2004, 2006; Wade, 2003; Bergsten 1996; Kaelberer 2005; Helleiner 2006; Andrews 2006; Vermeiren, 2010) find the fundamental cause of global imbalances to be the international monetary system itself, rather than in the specific policies or developments of each national economy. They point out that the current international monetary system is a kind of non-system in which the US, the issuer of de-facto global money, is given a prerogative or what they call 'structural monetary power' capable of financing any expensive self-centred policies by exploiting the world's surplus savings deposited in dollar-assets. They argue that the more the US exploits the dollar privilege the more instability occurs in the global financial system, which in turn forces other states, in particular poor developing countries, to 'voluntarily' accumulate dollar reserves and thus finance the US deficits, in an attempt to insulate their economies from possible financial shocks. From this perspective, the growing global imbalance was an outcome of this structural monetary power of the US, or the lack of 'fair' regulatory mechanisms controlling the US' external deficits at a global level.

On the other hand, agreeing with critical IPE perspectives that the immediate cause of the global imbalance was the US' imperialistic exploitation of the dollar privilege, World System theorists (Arrighi 1994, 2005, 2007, 2009; Arrighi and Silver 1999, 2001; Arrighi and Zhang 2007; Sugihara 2003; Frank 1998; Amin, 2004, 2005; Wallerstein 2003) take it one step further by arguing that the American state's reliance on its monetary-financial power is a reflection of declining economic power in production, and thereby declining US hegemony. They see the growing US external deficits as an outcome of the state's efforts to maintain its central status in the global political economy without a corresponding material capability. They also argue that the declining US hegemonic power has been

accompanied with a rising new centre of global production: China, a pioneer of what they call a ‘non-capitalist market economy’. They expect, in the long run, China’s rise as a new centre of the global economy and the emergence of the ‘Beijing Consensus’ to replace the Washington Consensus that will provide system-level solutions to the system-level problems left behind by American hegemony.⁶ Consequently, for them, the Chino-American global imbalance was one of the by-products or symptoms of this historical process of hegemonic shift.

It is undeniable that from Keynesian-inspired views to the world-system theory each approach made considerable advances in the analytical understanding of the Sino-American global imbalance. Despite their insights, however, each of existing approaches focuses only on *specific aspects* of the phenomena they have selected in the first place; none of them, it is argued here, analyses the social foundation of the imbalance.

For instance, Keynesian-inspired perspectives are open to criticism that they disregard the socio-economic context that made such ‘problematic’ policies unavoidable or even rational options. Indeed, it can be argued that both the Chinese and US policymakers adopted the imbalance-inducing policies in order to keep the economy from an imminent risk of recession, rising unemployment, and social unrest. Likewise, it can be seen that rebalancing policies were not actively employed because such policies were expected to entail a crisis rather than prevent it. In this sense, emphasising ‘appropriate’ policies for a stable balanced growth without exploring the underlying causes of the imbalance can be criticized for being naïve and normative. The weakness of Keynesian views is shared by neoclassical perspectives, which disregard the socio-political context built by states that rendered the specific individual economic decisions rational. Individual rationality aimed at inter-temporal utility optimization should be seen as socially-organized collective action rather than the spontaneous actions of walking calculators. For example, Chinese low-incomers were socially *forced* to consume less in favour of savings rather than voluntarily partaking in utility maximization activities. Also, these approaches focus only on some

⁶On the rise of China and its implications for the world system, there is no consensus among World System theorists. While Arrighi and his collaborators see the emergence of China as the rise of an alternative to the existing US-led world system, others including Wallerstein and Li argue that the growth of China (and India) represents that the capitalist world system has reached the terminal stage of development. For the latter perspective see Li (2008).

beneficial aspects of the cross-border relations of savers and borrowers; no attempt is made to explain why such individual rational decisions brought about the increasingly manifest irrational outcomes such as excessive under-consumption in China and excessive over-borrowing in the US.

In the case of critical IPE views, they tend to overlook an important aspect of the global imbalance: the issues of relative industrial competitiveness. By leaving the question of production relations behind, they fail to see that behind the strong purchasing power of dollars that has been ‘structurally’ sustained is the declining competitiveness of the US-based producers in world export markets. Indeed, this was one of the factors that triggered dollar crises (e.g. crises of 1977-9, 1987, 1992-3 etc.), which in turn made the US (that is supposed to be free from external constraints, according to critical IPE’s explanations) dependent upon foreign creditors including China. Lastly, views based on World System theories overlook the fact that despite the different forms of development the US and China, as a moment of the same global circuit of capital, have been dependent upon each other in terms of their own domestic stability and prosperity. In particular, they tend to wrongly regard China (whose development path is characterized by the ‘strong state’ vis-à-vis the market) as a state existing independent from the capitalist world market including the US. This perception does not correspond to the reality that China’s growth as a global factory is conditioned on the growth of the US as a global consumer for the commodities made in China.

In sum, while existing approaches are not without merit, their explanatory utility remains confined within their narrowly fragmented analytical frames. It seems that a comprehensive understanding of the phenomenon is only possible by putting these frames together in a mosaic fashion despite the contending views being in contradiction with one another on many issues. This thesis argues that all the above mentioned perspectives fail to put the social context into the question and that doing so is fundamental to understanding the Sino-American imbalance in a comprehensive manner.

Instead of endorsing one of the existing positions, thus, this thesis sets to explore the underlying social foundation of the Sino-American imbalance by means of an Open

Marxist account of the capitalist social relations, focusing on the crisis-ridden character of capitalist accumulation. Exploring the social context, it will be argued that the Sino-American imbalance was a perverted form of international cooperation between China as the workshop of the world and the US as the centre of global deficit financing of demand. This cooperation was the unintended consequence of the attempts by China and the US to secure their respective domestic reproduction of social relations in the face of an accumulation crisis and social strife. Finally, it will be argued that these attempts at domestic crisis management did not overcome, rather ended up intensifying, the crisis-ridden character of capitalist accumulation.

3. Conceptual foundations of thesis

This thesis argues that the weakness of the existing approaches principally derive from their restricted methodologies or their conceptual foundations, in that they take the separate and atomised units of society as their starting point and then attempt to look for the external relations between them, rather than beginning with a study of society itself from which different constituent parts are derived (Burnham 2010, p.31). In other words, the existing views are treating particular categories of social organization such as the state, the market, or a group of individuals in a-historical and taken-for-granted manner and then see only empirical collisions between them, as if each of them exists with its own law of development autonomous and independent from the underlying social relations (e.g. the state as an external balancer of the economy, the market as a tool for utility maximization, the world market as an arena of interstate political struggles). It is no wonder, based on such a fantastic notion of the state or the market, they cannot advance “beyond a superficial form of naïve positivism in which externally related factors are brought haphazardly together in the fashion of popular journalism” (Burnham 2010, p.27). In Marx’s words, their analyses end up dealing with “only the direct form of manifestation of relations that is reflected in [people’s] brains and not their inner connection” (Marx 1981, p.307).

In this regard, the Marxist, or more specifically, the ‘Open Marxist’ tradition, provides a more illuminating methodology. The analytical depth of an open Marxist analysis derives from its distinction between the apparent form and the essence of social reality. It is

understood that the essence of social reality lies in the specific way in which human labour power is organized in the process of social production, while it exists in the form of apparently disparate and independent but mutually complementary components. According to Marx (1978, p. 828), “the process of capitalist production gives rise to formations, in which the vein of internal connections is increasingly lost, the production relations are rendered independent of one another and the component values become ossified into forms independent of one another”. Thus, instead of taking the existence of various social forms as established ‘facts’ and then focusing on its functions, a social study needs to first raise a question why social productive practice has assumed that particular form;⁷ what is the social origin or the *raison d’être* of such forms that lie in the capitalist mode of producing subsistence. By analysing a social event in the context of capitalist social relations (the all-pervasive and determining political economic context), this approach can conceptualize its social meaning: the social basis of its existence, advancing beyond a pure empirical and fragmented assessment. As Clarke (1978, p.42) put it, “it is the concept of class relations as being analytically prior to the political, economic and ideological forms taken by those relations (even though class relations have no existence independently of those forms) that makes it possible for a Marxist analysis to conceptualise the complexity of the relations between the economic and the political, and their interconnections as complementary forms of the fundamental class relation, without abandoning the theory for a pragmatic pluralism”.

Consequently, this thesis argues that an analysis of the global imbalances should be based on an understanding of the capitalist social relations of production, that is, the process of capital accumulation which manifests itself as various patterns of state, market, finance, or interstate relations. In other words, this thesis explores how the process of class struggles had come to form the complex phenomena of the global imbalances through phenomena including specific state policies, a pattern of market transactions, geographically and sectorally uneven development, expansion of finance linking the world, and conflicts and cooperation between states on the world market.

⁷See Marx, *Capital*, vol.1. pp. 173-74.

4. Core argument of thesis

Marx's theory of capital accumulation elucidates the contradiction inherent in the capitalist social relations of production. In capitalist society, exploitative class relations of production take place in the form of value relations between commodities on the market, which drives all capital, in an attempt to reproduce itself, to maximize the productive forces of labour by constantly reinvesting surplus value in the means of production, thus throwing an increasing mass of commodities onto the market without regard for the demand for them as use-values. It follows that the tendency towards overproduction of commodities and overaccumulation of capital is inherent in the very capitalist mode of production itself. The tendency is expressed as a dynamic of economic growth on the one hand, and an increasing necessity of a crisis eliminating the growing stock of unsold commodities and unprofitable means of production on the other. In other words, as accumulation proceeds, "the development of the social productive power turns into an obstacle to capital, or, what is the same, the capitalist relations of production become obstacles to the further development of the productive power of social labour" (Marx, 1953, p.635, quoted by Mattick 1969, p.55). Meanwhile, in line with the growing necessity of crisis, the capitalist state seeks to sustain accumulation within their territories by means of various forms of economic policies helping capitals to overcome a barrier to further accumulation. By expanding the mass of capital beyond what could otherwise be sustained, however, the very 'success' of any state policies ends up reinforcing, rather than countering, the tendency to overaccumulation and crisis on a global scale.⁸ This thesis will interpret the development of the Sino-American global imbalance as a form of this contradictory process of capital accumulation mediated by states' economic policies.

Based on the findings of detailed analyses of the contradictory rise of China as a surplus-running 'factory of the world' together with the contradictory rise of the US as a debt-ridden 'consumption market of the world' from the mid-1990s, this thesis explores three questions related to the Sino-American imbalance: why the imbalance was promoted by

⁸ Of course, it does not mean that state policies are meaningless and have no impact on the accumulation process. Although capitalist states' interventions cannot deal with the underlying contradictions of the capitalist mode of production, they can significantly affect the specific forms in which the contradiction is manifested (Clarke 1988, p.83-84).

the states, how it was sustained by the states, and what contradictions it involved, and the answers can be briefly summarized as follows. First, by examining the socio-economic context around the late-1980s and early 1990s, this thesis asserts that the policies inducing imbalanced economic growth were each state's response to a crisis of accumulation and social reproduction. In the case of China, the radical market-oriented reform policies were actively employed from the early 1990s as a governing strategy for reproducing class relations in the face of the increasingly obvious failure of the so-called state capitalism represented by the secular decline of productivity and increasing social unrest. In the case of the US, the policy combination of a strong dollar and low interest rates from 1995 was an unavoidable reaction to the ever-worsening recession sustained since the late 1980's stock market crash as well as an impending capital flight owing to the secular decline of dollars and the crisis in Japan, the biggest US asset holder.

While both economies were successfully pulled out of the doldrums with rapid imbalanced growth, it was almost impossible for the states to employ 'rebalancing' measures such as income redistribution policies boosting domestic consumption demands in China and contractionary policies coupled with devaluation of dollars repressing consumption booms in the US because such policies would inevitably require a substantial devaluation of capital so far accumulated. In other words, in China, it meant a rising cost of exploitation eroding the value of productive capital in export sectors which was the source of national income itself, while in the US it meant a rising debt service burden eroding the value of credit-sustained assets upon which the economy as a whole was reliant. It was in this context that both states developed and adhered to imbalanced growth in spite of the growing instability involved in the imbalance.

Second, this thesis argues that the imbalanced growth patterns were managed in the form of international cooperation. In fact, the imbalanced economic growth of China following the reform process would have been impossible at the outset without the US' booming markets and the influx of FDI from the US, offsetting the deflationary pressure in China. Likewise, the imbalanced growth of the US led by the consumption boom from the mid-1990s would have been impossible in the first place without the rise of China sending cheap credits as well as cheap commodities, thus countering the inflationary pressure in the

US. The *de-facto* cooperation between China and the US in sustaining accumulation became especially prominent from 2000 when the bursting of the US stock market bubble brought about the possibility of a sweeping crisis. At the time, the US monetary authority had to implement two incompatible tasks at the same time: on the one hand, it had to react to the recession with exceptionally expansionary policies, while on the other hand it had to defend the dollar from the growing speculative outflows of funds from US markets. Meanwhile, China was also affected by growing fallout from the crisis: while an abrupt reduction of demands in export markets dealt a blow to the growth engine of the economy, the influx of speculative capital (so-called ‘hot money’) was putting upward pressure on the renminbi either in nominal or real terms which, if realized, would have further dampened the profitability of export sectors.

The crisis overshadowing both countries at the time was managed and finally overcome through a specific form of cooperative financial policies. On the side of China, the monetary authority, as a reaction to the speculative pressure on the currency, embarked on the famous double intervention policies on a large scale: massive purchase of dollars in the foreign exchange market coupled with a drastic sterilization operation in domestic bond markets, while the costs of such intervention were in effect passed onto the low-income working population in the form of negative real interest rates on savings. On the side of the US, the government with the help of Wall Street accelerated the development of mortgage financial markets, which came to play the role of efficient vehicle channelling the massive amount of Chinese dollars into American housing assets. While the inflow of Chinese funds supported the value of dollars and housing assets, the low-income US households were rendered wealthier on paper and thus were capable of incurring more debts for sustaining existing levels of living standards (i.e. consuming more Chinese commodities). Consequently, the core of the cooperative operation was transferring surplus capital from China to the US through the unintended but concerted financial manipulations by the two states. As a result of the cooperation over the recycling of surplus capital, the export-investment led growth in China and the consumption-led growth in the US were both successfully put back on track deepening the existing imbalance further and further.

Third, this thesis maintains that the imbalanced growth was a contradictory process of

capital accumulation, reinforcing the barrier to further accumulation. Indeed, the brake on rapid growth based on the Sino-American imbalance was a product of the growth itself rather than some external factors. In China, while a certain level of surplus-profit (i.e. the difference between costs of production in China and selling prices in the world market) were secured, the brisk reinvestment of earned profits coupled with the huge influx of FDI continued boosting economic growth. But as the productive capacity was expanding without regard for the limited demand in the world market, the unlimited growth of productive forces was accompanied by a downward tendency of prices and profit rates. Ironically, rather than balancing between supply and demand, individual capital responded to such pressures by further lowering costs of production and throwing bigger volume of products onto the market, thus perpetuating the overproduction in a vicious cycle. With overcapacity and overproduction ever-worsening, there emerged inexorable problems such as growing unemployment, burgeoning bad debt loads in the banking system, and a speculative boom in real estate markets, all of which increased the necessity of a destructive crisis shaking off the overaccumulated capital.

In the US, while the value of the dollar and housing prices were supported by the massive influx of Chinese funds, the growing debt-financed consumption demand fuelled booming economy with the service sectors as the main growth engine. The problem was that the debt was expanding without the concomitant expansion of productive activities. The cheap Chinese credits were being imported along with ultra-cheap Chinese commodities, which drove out the US-based manufacturers whose price competitiveness was significantly eroded by the relatively high value of the dollar. As a result, with the trend of so-called deindustrialization accelerating, more and more workers were pushed into low-productivity and low-wage jobs in service sectors leaving households' real income growth stagnating for a long period. While the increasing level of debt was justified by the growth in household wealth in the form of expensive houses, the growing debt-service burden due to the stagnating income growth was destined to put growing downward pressure on the demand for mortgages and houses, precipitating a burst of the bubble, that is, destruction of the imaginary wealth so far accumulated.

In sum, from the findings of the analyses of the social context this thesis derives three

arguments on the nature of the Sino-American imbalance. First, this thesis argues that what Keynesians call ‘misguided’ policies were employed by each state as a governing strategy securing reproduction of social relations in the face of an accumulation crisis, and thus the root cause of the imbalance is not the policies themselves but the crisis-tendency inherent in the capitalist mode of production. Second, this thesis asserts that the imbalance was managed through *de-facto* international cooperation between the global centre of production (China) and the global centre of circulation (the US) which are mutually dependent in sustaining accumulation within their respective territories. Third, the thesis maintains that the cooperative relations conducive to sustaining growth in the form of a growing bilateral imbalance were fundamentally contradictory relations, helping productive forces in China maximize themselves without regard for the limited markets, and at the same time allowing credits in the US to expand regardless of the debtors’ ability to service the accumulated debts, thus amplifying the possibility of a crisis.

Consequently, the Sino-American imbalance was, as it is set out to argue here, a perverted form of international cooperation between China and the US for sustaining accumulation and securing reproduction of domestic social relations. Expressed another way, the Sino-American global imbalance, at its foundation, was an expression of the tendency to overaccumulation and crisis inherent in the capitalist mode of production, mediated and reinforced by mutually complementary economic policies of the US and China, each seeking to sustain domestic accumulation.

5. Empirical background of thesis

In this thesis, I will empirically demonstrate the fact that both the US and China were under the growing pressure of an accumulation crisis prior to the mid-1990s. Macroeconomic indicators in China show stagnating productivity growth, relatively low real wage growth, and several eruptions of hyper-inflation that escalated socio-political tensions. Meanwhile, empirical material for the US reveals steadily falling capacity utilization rates, and exceptionally high unemployment and poverty rates coupled with constantly falling real wages until the mid-1990s.

In response to those crises, as will be argued, the Chinese state employed radical reform

policies aimed at cheapening the labour force through depoliticizing the class relations of production, while the American state employed a set of monetary policies with a view to encouraging more investment and consumption on the basis of easy credit. I will empirically demonstrate the fact that from the mid-1990s those policies transformed China and the US into a surplus-running factory of the world and a debt-ridden consumer of the world respectively. This will be done by tracing the trend of relative unit labour costs (or the trend of overall trade weighted real exchange rates), the changing world market shares for capital operating in China and the US, international flows of FDI, and the trend of changing industrial structure in the two countries as well as the cumulative current account surplus/deficit.

Meanwhile, the immediate limits of the newly developed accumulation patterns, the lack of effective domestic consumption demands in China and the inflationary pressure (downward pressure on the dollar) in the US, as will be argued, were overcome through the de-facto policy cooperation between the two states. I will empirically demonstrate this with data showing the growing role of the Chinese state in stabilizing the US financial market (the growing amount of debt issued by the US government and government-related agencies, notably MBSs, that were purchased by the Chinese state) as well as the growing share of Chinese goods in the US consumption market which sustained and deepened the Sino-American imbalance.

As pointed out earlier in this chapter, while the de-facto policy cooperation made it possible for both states to continue their rapid economic growth, it ended up intensifying, rather than countering, the tendency towards over-accumulation and crisis in both countries. I will empirically demonstrate this argument with Chinese data indicating the ever-falling average capacity utilization rates (capital productivity), unemployment rates chronically remaining high, increasing cases of workers' collective resistance, and growing bad-debt (NPLs) loads in the banking system during the mid-2000s. For the US, data shows the ever-rising debt-to-GDP ratios, in particular the rising household debt and debt-service payment as a percentage of disposable income in the US until the year 2007.

6. Structure of thesis

The thesis is organized as follows. In Chapters 2 and 3 existing approaches to the global imbalance are outlined. Chapter 2 examines the explanation of mainstream economics that can be divided into Keynesian and neoclassical views, and Chapter 3 reviews the perspectives of critical IPE theorists and World Systems analysts on the phenomenon. Chapter 4 presents Marx's theory of accumulation and crisis as the theoretical context of this thesis. In that chapter, the basic Marxist concepts on the process of capital accumulation, development of overaccumulation crisis, and the nature of the state will be outlined. Chapter 5 develops the historical-global context of the global imbalances. It takes a brief look at the history of crisis-ridden contemporary global capitalism (from the late 1960s to the early 2000s), examining major conjunctures related to global economic crisis. Chapter 6 and 7 analyse the contradictory development of class relations in China and the US respectively. Based on the analyses of socio-economic policies and their effects, these chapters explore how and with what contradictions each society came to position itself as the 'factory of the world' and the 'debt-ridden consumer market of the world'. Using the kernels of the findings of those two chapters, Chapter 8 develops the core argument of this thesis providing a comprehensive explanation of the nature of the Chino-American imbalance. Finally, Chapter 9, as the concluding chapter, summarizes the thesis and considers its implication for the study of the contemporary global political economy.

7. Research documentation

In terms of empirical evidence, this research depends on both primary and secondary literature. The former includes official statistics issued by relevant government departments (e.g. China Statistical Yearbook issued by National Bureau of Statistics of China (NBSC), investment statistics of China Ministry of Commerce, statistical data presented by US Bureau of Economic Analysis (BEA), US Bureau of Labor Statistics (BLS), Federal Reserve Economic Data (FRED)), and international organizations (e.g. International Trade Statistics of the WTO, World Economic Outlook Database (WEO) of the IMF, Country Statistical Information Data base and World Development Indicators of World Bank, Stat Extracts of the OECD, etc.). The latter include working papers of private or state-sponsored research institutes, press reports, and scholarly publications dealing with related issues.

Chapter 2. Perspectives of Mainstream Economics

This chapter examines the explanations of the global imbalances provided by mainstream economics that can be broadly divided into Keynesian and neoclassical views. The two approaches are analysed consecutively across three sections: to begin, theoretical framework is examined, and this is followed by two sections analysing the causes of Chinese current account surpluses and the US deficit respectively.

It should be noted that the categorization of the views of mainstream economics into Keynesian and neoclassical views made in this thesis is not based on a strict academic definition of each term but on their general stance towards the state and the market. In this thesis, I refer to ‘Keynesian-inspired views’ as those whose attention is generally focused on the role of the state as a ‘rational external engineer’ that is perceived to be able to correct the malfunctions of the ‘irrational market’, while referring to ‘neoclassical-inspired views’ as those that tend to focus more on the ‘rational operation of the globalized market’ that determines the concomitant government role as a ‘passive supporter’ or ‘one of market actors’. I believe this way of categorizing the existing views of mainstream economists is fully acceptable, considering that many mainstream economists themselves admit that there is no more a clear-cut definition of either term.

1. Keynesian-inspired perspective

1.1.Theoretical background

Keynesian macroeconomics in general, denying the self-correcting market mechanism based on flexible prices, starts with the observation that imbalances between aggregate domestic demand and supply cause excessive business swings involving deep recession and overheating in a national economy, and then focuses its attention on appropriate governmental interventions (manipulation of some key indicators through fiscal, monetary and exchange rate policies) that have the potential to smooth out cyclical bumps, ensuring stable economic growth (Dutt 1991, p.221, 223). This approach is also applied to the problems of external imbalances; they are interpreted as a reflection of a domestic imbalance between aggregate expenditure and aggregate production in each country that

has not been corrected by appropriate government policies. In other words, a country's long-lasting current account imbalances are considered to be a result of 'inappropriate' policies that have failed to match domestic consumption demands to domestic productive capacity, and thus leaving either supply or demand in excess for a long period (KCW 1971-89, vol.25, p.30, p.272).

For theoretical simplicity, these Keynesian perspectives (often called the 'absorption approach' to the balance of payments) can be explained by a manipulation of basic national income identity (Glowland 1983, p.88). As the national income account shows, total output Y is equal to total expenditures which can be divided into four possible uses: consumption (C), investment (I), government purchases (G), and net imports ($EX-IM$ or CA). This is described as the following equation: $Y = C + I + G + (EX - IM)$. With total domestic spending: $(C+I+G)$ defined as 'absorption' (here denoted by A), the above equation can be rearranged as follows: $Y - A = EX - IM$. This shows that a current account surplus will occur when total domestic production (Y) exceeds absorption (A), so that the nation has redundant output to export. On the other hand, if $Y - A$ is negative, that is, if absorption exceeds domestic output, the current account will also be negative as the excess of domestic demand is supposed to be met through imports (Alexander 1952, p.274). To achieve external balances, a country experiencing a CA deficit should adopt policies for increasing Y or decreasing A , while a surplus running country should follow the opposite direction.

There is another simple macroeconomic identity useful for discussing the current account imbalance. To the national income identity used by the absorption approach, $Y = C + I + G + X - M$, one can add the national income identity that shows how income received by individuals is allocated to different uses: $Y = C + S + T$. This indicates that income is allocated into consumption (C), saving (S) and taxes (T). With Y and C cancelled out from these two equations, one can derive: $X - M = (S - I) + (T - G)$. The equation shows that a country runs a current account (CA) surplus when private saving is more than enough to finance private investment spending plus the government budget deficit ($T - G$), while if a country has national savings that falls short of its capital investment, then this must necessarily be matched, in aggregate, by a foreign debt (a surplus of saving relative to

investment insufficient consumption (excessive savings) somewhere else). It follows that any imbalances between savings and investment ‘in a certain national economy’ inevitably involves global imbalances ‘between national economies’ (Köhler 1990, p.260; Eichengreen 2005, p.5). This equation also shows the important role of the government in offsetting any shocks in the private sector. For example, when there is excess investment over private savings ($S < I$) as a result of an investment boom, the government can and should adjust its fiscal balance ($T > G$) with interest rates raised to cool it down (to prevent it from overheating). On the contrary, when private savings exceeds private investment ($S > I$) because of pessimistic expectations of the future, the government can and has to spend more ($T < G$) with interest rates lowered to prevent recession. If all national economies attempt to balance national savings and investment in this way, then there would be no large and long-lasting current account imbalances. Indeed, when fiscal-monetary policies were not active during the Classical Gold Standard period, 1880-1913, S and I were less correlated along with the persistently large destabilizing global imbalances. Only after Keynesian macroeconomic adjustment policies were invented and became quite popular, for example during 1965-1986, the tendency for saving and investment correlation in national economies became apparent, thus reducing the scale and size of current account imbalances.

Keynesian economists argue that economic growth based on such imbalances cannot go on, and without significant rebalancing policies, that is, if left to market forces, would ultimately end in a crash, i.e. an abrupt and disorderly adjustment, accompanied by substantial exchange rate overshooting, a large increase in interest rates, and a sharp slowdown in growth worldwide (IMF 2006, p.12). On the side of countries with cumulative current account surpluses, while their national production structures become more and more reliant on export industries, the growing pressures of overcapacity would put limits on opportunities for profitable investment and thus on overall economic growth. On the other hand, the disproportionate growth between debt-driven consumption demands (generally accompanied by speculative booms in risk-bearing assets such as stocks and real estate) and the capacity to repay debts (the growth of traded goods industries) in deficit running countries would ultimately lead to a balance of payments crisis involving a destructive adjustment process or the emergence of protectionism calling for stronger trade

barriers such as import quotas (Minsky 1992, pp. 6-8; Krugman 2007, p.438). Consequently, from Keynesian perspectives any growth based on external imbalances, either export-led growth or import-reliant growth, cannot be sustainable in the long run, and thus gradual adjustments (rebalancing policies) should be implemented before markets force a sudden adjustment.

1.2. Causes of Chinese current account surplus

Since the market-oriented reform process began in 1978, China's economy has recorded the world's fastest average annual growth rate amounting to almost 10%. Despite China's impressive economic performance, many economists have warned that such a high rate of growth would be unsustainable over the long run unless the highly imbalanced economic structure, that is, insufficient consumption demand over the capacity to produce, is corrected.

The trend of imbalances can be examined in national income accounts. As Table 2.1 shows, the share of aggregate domestic demand in GDP declined while the rate of final consumption (households and government expenditure for consumption) in GDP continued to drop from 62% to 49% between 1992 and 2007. Those consumption rates were the lowest in the world and far lower than the world average (which was 78% in 2006)(World Bank 2008). While ever-expanding investment (exceeding 40% of GDP) was leading to an increase in production capacity and GDP, the consumption growth was slower than GDP growth and thus the lower final consumption rate increasingly enlarged the gap between aggregate supply of products and effective demand for them (Akyuz 2011, p.3). In fact, over the past two decades, real GDP per capita multiplied by five times, while the growth rates of real consumption per capita rose only 3.6 times (NBSC 2008).It follows that the gap, that is, the insufficiency of domestic demand, pushed firms to expand their sales to overseas markets, making net exports a major source of economic growth with the contribution to economic growth accounting for almost 20% in 2005-07 (1.98% points of GDP growth) (Lardy 2012, p.47).

Year	Household	Government	Investment	Net exports
1992	47.16	15.24	36.59	0.99
1995	44.87	13.25	40.29	1.57
1998	45.33	14.28	36.18	4.19
2001	45.34	16.04	36.47	2.13
2004	40.51	13.87	42.97	2.63
2007	36.10	13.46	41.61	8.78

Source: China National Statistical Yearbook 2008, *National Accounts*:
<http://www.stats.gov.cn/tjsj/ndsj/2008/indexeh.htm> (Accessed 4 April 2010).

According to Lardy's (2012, pp.58-59) calculation on the basis of flow of funds data, about three-quarters of the fall in the consumption as a share of GDP between 1992 and 2008 was due to the declining share of household disposable income in GDP, and another quarter of the decline was due to the rising household savings. Table 2.2 shows that household disposable income as a share of GDP declined by more than 10% while household propensity to consume also fell by around 8% between 1992 and 2007 (Aziz and Cui 2007; Guo and N'Diaye 2010; Baker and Orsmond 2010). Given that wages constitute 80% of Chinese household disposal income, it is evident that the main factor behind the fall (contributing 60% towards the fall) in household disposable income share was the decline in the wage share of GDP. Indeed, wages as a share of GDP fell from approximately 53% in 1992 to less than 40% in 2006 (Hung and Qian 2010; Lu and Gao 2011).

Year	Household	Government	Corporate	Households' propensity to save
1992	68.3	20.0	11.7	29.5
1995	67.2	16.5	16.2	29.6
1998	68.4	18.1	13.5	31.2
2001	62.0	20.5	17.5	27.0
2004	57.8	18.9	23.3	31.6
2007	57.5	24.1	18.4	37.9

Source: Ma and Yi 2010, p.16

Consequently, to understand the imbalanced structure of the Chinese economy, attention should be first paid to the reason why wage growth lagged behind overall economic growth, and why personal saving propensity grew despite the drop in household income share. Keynesian economics argues that the trends were attributable to the ‘wrong’ government policies or a lack of positive countermeasures against downward pressures on wages, increasing income inequality along with economic insecurity among low-income households during the market-oriented reform era.

The underlying factor that put downward pressure on wages was the high degree of underemployment owing to the continued labour migration from agricultural sectors in the absence of proper institutional protection for those workers (who came to account for nearly 70% of the manufacturing workforce and 80% of the construction workforce by the mid-2000s). Compounding the problem was the fact that brisk investment did not lead to lower unemployment and a quick depletion of the rural labour force. This broken promise of a ‘Lewis turning point’ was partly due to the disproportionate investment activities in favour of large and capital-intensive industries (mainly the state-owned enterprises) at the expense of small, labour-intensive production or service sectors (Bai and Qian 2009; Ma and Yi 2010, p.18). Some economists point out that this trend was in fact a result of government policies; local administrations’ growth policies favouring SOEs and foreign invested firms, along with the central government’s exchange rate policies explicitly favoured export industries.

In the wake of fiscal decentralization reforms, governments at the provincial and municipal level were preoccupied with achieving faster growth performance in their regions by promoting the development of large, capital-intensive and export-oriented firms and also by attracting more foreign investment funds. To that end, they competitively provided large SOEs and foreign-invested firms with preferential tax rates (e.g. the tax rate for wholly foreign owned firms and joint ventures was cut by half) while encouraging the state-owned commercial banks (which were under their political influence) to advantage such firms in terms of external finance. It was in effect a policy of directly transferring resources from small and labour-intensive enterprises toward large and capital-intensive firms (Wang and Gang 2009, p.147).

Also, it is a well-known fact that the government (and the central bank) had long resisted the upward pressure on real exchange rates deriving from cumulative current account surpluses and net FDI inflows. While maintaining its fixed parity of 8.28 RMB to the US dollar, the authorities absorbed the expanded monetary base by selling domestic bonds as well as raising the reserve ratio in order to curb inflationary pressures (a policy called sterilization). As a result, the continuous basic balance surpluses accompanied an irrational piling up of foreign reserves rather than a rising purchasing power of the yuan (i.e. domestic prices and wages). According to Mussa's (2007) estimation, such monetary and exchange rate policies contributed to lowering China's real exchange rate by about 36% from the early 2000s until 2006. By reducing real wages (purchasing power of wages), an undervalued yuan played a certain role hindering the growth of consumption-based services sectors while artificially raising profitability in the export sector and import-competing SOE sector, which in turn contributed to the stagnated growth of employment and wages (Goldstein and Lardy 2008).

Regarding the fall in propensity to consume, i.e. the increase in propensity to save, two factors can be identified as the cause: growing inequality and a lack of social system. During the reform period (1978–2007), slower growth of labour wages and faster growth of non-labour incomes resulted in widening income inequality (Wang and Gang 2009, p.145). For example, the Gini income coefficient in China increased from 0.32 in 1978 to 0.48 in 2007, reaching a point higher than the generally-known warning level of 0.4 (World Bank 2008). The trend accelerated with rapid growth rates recorded from the mid-1990s. Indeed, the income of the top 10% of the richest Chinese was 23 times that of the bottom 10 percent in the country in 2007, as compared with 1998, when the gap was only 7.3 times (China Daily 2010). The large and widening income inequality may well result in an increasing share of savings and decreasing share of consumption in GDP, because it means national income is distributed in favour of higher-income resident groups (e.g. employers and employees of SOEs) whose propensity to save is significantly higher than low-income residents.

Under-development of social security and public service systems also rendered the Chinese lacking in confidence regarding consumption. By the mid-2000s there was no social

welfare system to fully replace the enterprise-based cradle-to-grave social safety net that had been dismantled since China entered its toughest corporate restructuring and downsizing period from 1995 (Cai et al 2008). For instance, until 2007 the basic pension insurance and urban medical care insurance systems covered only 201 million and 180 million people, accounting for only 34 and 30%, respectively, of the urban population. The unemployment insurance system covered only 116 million workers, accounting for 40% of total urban employment. None of these systems covered rural residents. It is not surprising that in a society where the only way to prepare for any possible illness or unemployment is personal savings, households cannot help but increase their savings as much as possible.

In sum, China's wage growth lagged behind overall economic growth while personal saving propensity remained too high because of a lack of appropriate government policies; there was little regulations in the labour market that could offset the effects of the oversupply of labour forces from rural areas; the government adopted policies favouring capital-intensive export-oriented firms including SOEs at the expense of small and labour-intensive firms; there was no active response to growing income inequality while the problem of insufficient social welfare system was left unaddressed.

All these indicate that the government pursued a transfer of resources from the household sector to the corporate sector, in particular the sector of large exporters and SOEs (Vermeiren 2013, pp.12-13). It seems that the government believed that letting the corporate sector retain huge profits would lead to a higher level of investment that could ultimately solve any problem of the national economy including a lack of consumption demand (Fan et al 2009). In reality, however, there was no such market mechanism allowing labour income and household consumption to grow in line with output growth at all. Rather, as discussed above, such a policy actually functioned the opposite way, and thus corporate profits and investment were increasingly expanded with the surpluses falling into the hands of a small group of individuals, enlarging income inequality.

It is pointed out that this investment-export-oriented growth model is not sustainable in the long run, because growing pressures of overcapacity will put limits on opportunities for profitable investment while deficit-running countries including the US will not be able to

incur foreign debt indefinitely. Given the constraints on exports and the limits to investment-led growth, it has been prescribed that the sustainability of China's growth is only possible by raising domestic consumption demands. Economists suggest a package of structural reforms aimed at rebalancing the economic structure towards a more domestic-consumption-based economy, including active income redistribution policies, a drastic appreciation of exchange rates, and enforcement of stricter regulations in the labour market etc. (IMF Survey Online 2007). They argue that such rebalancing policies would lead to slower but higher-quality growth over the long term (IMF 2012).

1.3. Causes of the US current account deficits

Year	Household	Government	Investment	Net exports
1992	67.3	16.7	16.4	-0.5
1995	67.7	15.3	18.1	-1.2
1998	67.7	14.2	19.8	-1.8
2001	69.8	14.7	18.9	-3.6
2004	70.1	15.8	19.3	-5.2
2007	70.0	16.0	19.1	-5.1

Source: U.S. Bureau of Economic Analysis, *GDP and the National Income and Product Account (NIPA) Historical Tables*, http://www.bea.gov/iTable/index_nipa.cfm (accessed 25 April 2010).

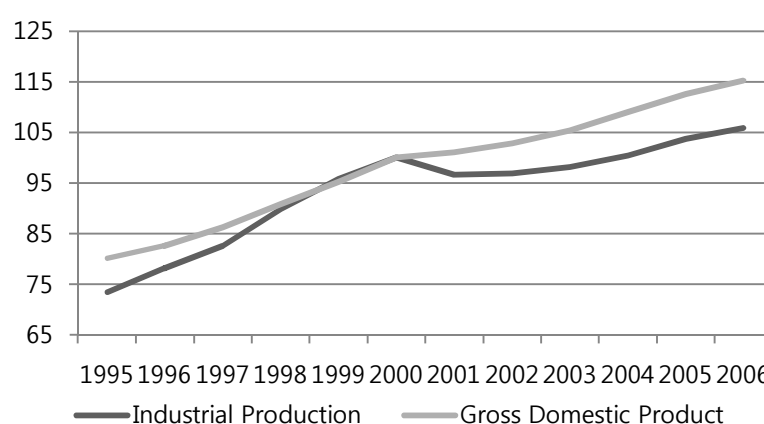
In the US, the excessive domestic demand over supply, that is, the cumulative current account deficits was mainly driven by the increasing rate of final consumption (household and the government expenditure for consumption) in GDP. As Table 2.3 shows, the share of final consumption in the economy continued to grow from 83% to 86% between 1995 and 2007 with the household consumption share reaching a record high of 70.1% in 2006 and the government enlarging its share from the late-1990s. Such a high consumption rate (twice as high as that of China) was exceptional compared with the world average that stood at 78% in 2006 (World Bank 2008). While corporate sector investment spending and production capacity in the US were stagnating, the excessive domestic consumption demand generated high economic growth and lower unemployment rates, thus increasingly enlarging the gap between aggregate supply of goods and services and aggregate demand

for them. As a matter of course, the growing gap, that is, the insufficiency of domestic supply, had to be filled by growing imports; since 2002, imports of consumer goods increased steeply by more than 10% per annum, which was faster than the growth rate of total non-oil imports (7%) and the average growth rate of 8% over the past 25 years (Chinn 2005, p.9). This consumption-led growth widened the gap between expenditure and production and led to the biggest economic imbalance in American history. The US became the 'spendthrift nation' with total outstanding debt amounting to US\$47.9 trillion—equal to 3.5 times US GDP in 2007 (Lansing 2005; Roach 2008).

Focusing attention on the period after 2001, the nature of American current account deficits can be seen more clearly. Although the US current account balances deteriorated significantly from the mid-1990s, the deficits shown before 2001 were different from those since 2001 in terms of the underlying causes (Roubini and Setser 2004, p.21; Dunaway 2009, p.8; Chinn 2005). During the second half of the 1990s U.S. current account deficits were largely associated with a surge in investment in the midst of the IT industry boom. Accordingly, the current account deficit during the period posed little concern because it was brisk productive investment promising higher future income that had brought about the deficits. More importantly, the fiscal balance was improving significantly from a \$197 billion deficit in 1995 to a \$227 billion surplus in 2000, thus partly offsetting private dissaving. In a word, current account deficits prior to 2001 can be recognized as 'benign' both in quantity and quality, providing the basis for future production and capability to repay the debts. This aspect of deficits, however, became no longer able to apply to those existing since 2001. The bursting of the NASDAQ bubble drove the level of national investment down by approximately 4% of GDP from 2001 to 2003, which made it harder to link current account deficits to investment activity. The deficit, nevertheless, continued to deteriorate from a deficit of 4% of GDP in 2000 to 5% in 2003, 6% in 2005 and 7% in 2006 (Eichengreen 2008, p.213; Roubini and Setser 2004, p.21; Stiglitz 2006). These growing deficits show that the nature of current account deficits changed into being definitely unsustainable and consumption-driven. As Figure 2.1 shows, the pattern of growth prior to 2000 was almost the same as that of industrial production, until they began diverging from 2000 onwards. This meant that the U.S. growth rate came to depend more and more on consumption rather than productive investment.

Figure 2.1. Development of GDP and Industrial Production in U.S. index, 2000=100

Source: Federal Reserve Statistical Release 2010.



It may then be asked, what were the factors behind the consumption boom? The expanding household consumption was not induced by a rise in household disposable income as a share of GDP (e.g. from 2001 to 2005, personal income fell from 86% of GDP to 82%) but by the increasing propensity of households to consume (lower savings rate) along with higher indebtedness. The personal savings rate having averaged 9.0% of disposable income in the 1980s fell to 5.2% during the 1990s, and then further declined to 1.9% from 2000. In the second quarter of 2005, it actually turned into negative (-0.4% of disposable income) for the first time since the Great Depression, reaching a record low of -1.1% in 2006 (FRB 2008). As Table 2.4 shows, during the 2000s while the households were consuming larger and larger portions of disposable income, they were also ‘investing’ increasing sums of money in housing assets by almost doubling financial liabilities. The expansion of household borrowing was not insignificant; as shown in Table 3, the outstanding debt of US households was \$3.6 trillion or 62% of GDP in 1990 accumulated to US\$13.8 trillion, equivalent to total US GDP in 2007, contributing the most (except the financial sector) to the growth of total national outstanding debt.

	Consumption	Net acquisition of financial assets	Net acquisition of housing assets	Net acquisition of financial liabilities
Average 1980s	91.0	14.9	4.8	7.0
Average 1990s	94.8	8.8	4.7	6.0
Average 2000s	98.7	6.6	6.1	11.0

Source: Flow of Funds Account, FRB (2008), Iley and Lewis (2007, p.53)

Economists argue this trend was ignited and driven by the Fed's reckless monetary policy in the wake of the bursting of the tech bubble. During the period of recession in the early 2000s, the exceptional monetary policy (which led to the lowest real ex ante Federal funds rate since the 1970s and the fastest rate of growth of liquidity since 1980) was adopted in the name of a 'deflation-insurance policy' (Iley and Lewis, 2007, p.239). But the problem was that the interest rates were maintained at the emergency level even long after the recession was over (until 2004), and thereafter the policy was turned into a pro-cyclical policy, giving the boom more than a helping hand, and thus forming a housing market bubble (Taylor 2009, p.5). The Economist (14 January 2006, p.68) described the policy as "Alan Greenspan's Monetary myopia" blind to the dangers of excessive monetary expansion, encouraging investors to take ever bigger risks and pushing share and house prices ever higher. In turn, rising asset prices and the enhanced access to credit of US households (the so-called 'wealth effect') further pumped up the US economy by accelerating consumption spending. As a result, American consumer spending, and economic growth as a whole, became dangerously dependent on unsustainable increases in asset prices and debt with the Fed forced to stick to the excessive policy even longer.

Most mainstream economists also point out the fact that the unprecedented level of household consumption was not at all offset by government savings and rather, brought back the notorious 'twin deficits' of the 1980s. Between 2000 and 2004, indeed, the budget deficit deteriorated to near 6% of GDP between 2000 and 2004 (USG 2009, p.326-7). Unlike previous administrations that raised taxes to finance foreign wars, the George W. Bush administration, supported by the Fed's excessive monetary ease, made large tax cuts while conducting the enormously expensive war in Iraq. The government increased real federal spending by 4.9% per year with the budget appropriated for 'defence' rising surprisingly at a real annualized growth rate of 8.1% (Rogers 2006; Tabbs 2007). As a result, the US government budget was shifted from a 1.8% of GDP surplus at the end of the Clinton administration in 2001 to a 4.8% deficit at the end of his first term, with the federal debt ballooning to about \$4.2 trillion at the end of his second term (USG 2009, p. 128).

Year	Government	Household	Non-financial business	Financial sector	Sum	GDP	Debt/GDP (%)
1990	3.5	3.6	3.8	2.6	13.5	5.8	232
2007	7.3	13.8	10.6	16.2	47.9	13.8	347

Source: Data of U.S. Bureau of Economic Analysis calculated by Wang and Gang (2009, p.142)

Unsurprisingly, the pattern of debt accumulation raised a serious concern about the problem of sustainability. From a common-sense point of view, higher interest rates, that is, a higher risk premium for holding dollar-denominated assets seemed necessary for the US as a debtor to take on additional debt. However, as higher interest rates would have a vital effect on household spending which was largely financed by debt, the only way remaining to induce foreign investors to hold dollar denominated assets despite relatively low return was to keep the external credit worthiness high (Roubini and Setser 2004). Unfortunately, there were several factors in the rising US current account deficit that gave rise to ‘concerns’ rather than ‘credit’. First of all, Policies for sustaining a consumption-led boom, such as a strong dollar, low interest rates, low unemployment and increasing personal income and wealth all had distorted domestic production structure in favour of sectors producing non-tradables such as services and real estate. As Table 2.6 indicates the US economy became increasingly dependent upon domestic consumer-demand-based businesses, while US domestic investment was disproportionately reliant on the non-traded goods sector with only approximately 10% of GDP invested in the export-related sector (Summers 2004; Roubini and Setser 2004, p.26). The development of this production structure made the external imbalance appear increasingly unsustainable and precarious because it meant that the source of future ability to pay cumulative foreign debts was being drained.

	Agriculture	Manufacturing	Construction	Services
1980	2.8	28.3	4.9	63.5
1990	2.0	23.4	4.5	69.8
2000	1.2	18.4	5.0	75.3
2007	1.1	17.0	5.0	76.7

Source: U.S. Bureau of Economic Analysis, *GDP and the National Income and Product Account (NIPA) Historical Tables*, http://www.bea.gov/iTable/index_nipa.cfm (accessed 27 April 2010).

Worse, the pace and quantity of debt accumulation seemed too fast and large compared to the world's estimated ability to absorb the claims on the US. As of 2006, the US was borrowing from abroad approximately \$2 billion a day to finance its trade deficit that reached an all-time record, about 6.5% of GDP (Stiglitz 2006). Surprisingly, the US current account deficit accounted for roughly 75% of the world total current account surplus in the year (Obstfeld and Rogoff 2005, p.1; Roubini and Setser 2004, p.26). Needless to say, allocating more than two-thirds of investment resources to one place (the US economy) was incompatible with a rational management of portfolios. Apart from the willingness of foreign investors to over-invest in claims on the US, it was also questionable whether Americans would accept an increasingly higher share of US assets owned by foreigners (Eichengreen 2006, p.3). An increasingly large portion of returns from investment in the US would be not available to US residents and this situation was likely to lead to a substantial rise in protectionist pressures. A rise of protectionism calling for stronger trade barriers such as an import quota was historically proven to go hand in hand with a high level of trade deficits and the resulting high rates of foreign ownership (Summers 2004). These negative features of the US current account deficit played an important role in increasing the perceived risk of dollar assets which was not yet matched by higher interest rates.

Considering modern financial markets lacking the function of a smooth adjustment of macroeconomic imbalances, Keynesian economists argued that the longer the imbalance was supported, the greater the likelihood of disorderly adjustment. Disorderly adjustment means capital inflows falling steeply with the plummeting dollar value, which would involve higher interest rates and import-price inflation, and a sharp decline in asset prices and domestic demand in the US and the rest of the world (Roubini and Setser 2004, p.25, Eichengreen 2006, pp.3-5). At the same time, Chinese overproduction would have to be drastically adjusted by the same amount as the decline in overseas demand, causing alarming unemployment. Economists argued that, therefore, government policy actions for gradual adjustments should be implemented as soon as possible before markets force a sudden adjustment. Of course, rebalancing policies should begin with demand management policies at a national level, so-called expenditure-changing policies, i.e. fiscal-monetary policies for raising national savings rates. However, such policies should be based on

bilateral cooperation between trading partners on both poles of current account balances, because any unilateral actions could aggravate the situation. For example, Martin Wolf (2006) estimated that a cut in the US trade deficit from 7 to 4% of GDP, without an alternation to relative prices, would mean a reduction of nearly 10% of overall demand and about a 7% fall in GDP. In this case a remedy can aggravate the disease. Thus, there should be policy coordination between related states, gradually and stably transferring consumption demand from deficit to surplus country (Cline, 2005; Rajan 2006).

Of course, one of the most important parts of the coordination should be a substantial adjustment of the exchange rate (i.e. depreciating the dollar or appreciating the renminbi), that is, expenditure-switching policies (Krugman 2009; Cline 2005). Such changes of relative prices would make US exports more attractive to Chinese consumers, also making imports less attractive to US buyers. Regarding the needed range of currency adjustments, it was estimated that the dollar would need to be depreciated against the renminbi by at least 20-40% (Eichengreen 2008, p.216; Cline 2005, p.5). This coordination was expected to be more than desirable since it would not require any country to undergo severe adjustment (recession) in the course of rebalancing. Economists who emphasized the importance of policy cooperation also pointed out the necessity of a gradual and synchronized currency adjustment coordinated by a multilateral agreement between all the Asian exporters and the US. They argued that such multilateral cooperation as the Plaza Agreement in the mid-1980s was necessary to ease the Chinese monetary authority's worry about a loss of competitiveness and an abrupt inflow of hot money in the wake of currency appreciations (Cline 2005, p.1). It is also argued, in the long-term, strengthening the role of the IMF in conducting surveillance of member country policies (especially exchange rate policies) and establishing stricter regulation of the international financial system would be a fundamental remedy for the systematic global imbalances (Dunaway 2009, pp.24-26).

1.4. Summary

In sum, from the perspective of Keynesian-inspired economists the Sino-American global imbalance was a crisis-ridden development of the international economy caused by each government's misguided policies that failed to balance domestic consumption demand and

productive capacity. In China, the state's active pursuit of export-investment-led growth at the cost of small-medium scale labour-intensive industries, coupled with the state's inactivity in regulating labour-markets, establishing a new social security system, and tackling growing income inequality made the propensity to consume too low with the household disposable income (real wages) growth lagging far behind overall economic growth. On the contrary, in the US, the monetary authority's reckless monetary policies over-using the so-called 'wealth effects' for stimulating the recession-struck economy, coupled with the government's excessive spending-sprees, made overall economic growth too reliant on the growth of final consumption rates based on precarious debt expansion. Keynesian-inspired economists suggest that there should be a policy turn-around in each country in the process of close international coordination, in order to ensure the sustainability of economic growth and to prevent a disorderly adjustment that would be forced by unregulated financial markets.

2. Neoclassical-inspired Perspective

2.1. Theoretical background

While commentators borrowing ideas from Keynesian perspectives participate in debates over whether the imbalances are mainly attributable to the US (US authorities printing too much money) (Liu and Wray 2010, p.55) or China (pointing to the 'global savings glut' created by China's mercantilist policies such as currency manipulation) (Bernanke et al 2011), some economists argue that the imbalances as such are not an anomaly, but an outcome of people's rational choices for maximizing utility on the globally integrated financial market. From their perspectives (referred to here as the 'neo-classical perspective' to the global imbalances), the current account surplus or deficit simply reflects, in the aggregate, the rational decisions of many millions of individual households and firms in the market, that is, individual saving and investment decisions seeking the best use of their resources under a given environment (i.e. the activities of lending or borrowing in order to maximize the benefits of consumption).

A neo-classical perspective starts from a microeconomic understanding of saving-consumption behaviour by relying on the well-known theoretical framework of the

permanent income hypothesis (Friedman 1957) and the basic life-cycle hypothesis (Modigliani and Ando 1960). Both hypotheses predict that rational individuals aimed at maximizing the expected value of lifetime utility will attempt to smooth consumption over time (in consideration of diminishing marginal utility of consumption) by saving when their incomes are higher than their expected long-term average income and dissaving when their incomes are lower than the anticipated level of permanent income. Applying the logic to a lifetime, one can assume a typical life-time pattern of individual saving behaviours; when consumers are young they borrow against future earnings to finance (invest in) education, housing, and other expensive goods, in middle-age (during their most productive years) they repay these loans and accumulate savings for retirement, and in old-age they spend down their saved assets. Of course, such a pattern of saving and dissaving based on age can be significantly affected (amplified) by other factors such as the degree of uncertainty about the expected future income and the accessibility of credit. Because individuals are interested in saving to smooth their consumption not just over predictable change in income but over unpredictable fluctuations due to such causes as unemployment and disease, a high level of uncertainty (i.e. a low insurability of future risks) motivates them to save more even if their income is expected to rise on average. Also, if people are liquidity constrained, that is to say, they have difficulties in obtaining mortgages and other forms of consumer credit, even young people might be substantial savers as they cannot go into debt for education and housing while having to accumulate the necessary funds first. Further, with a high degree of liquidity constraints, precautionary savings also become more important since unexpected expenses cannot be easily met by temporary indebtedness.

Supposing that all individuals are identical, or at least on average behave in a significantly similar manner, understanding of individual behaviours of saving can be a good lens through which aggregate (national) saving behaviours can also be understood. In other words, the propensity to consume and save in a national economy can be explained by giving attention to changing demography (how the ratio of working population and retirees is expected to change) and whether or not insurance markets and credit markets are fully developed in relation to income growth. For example, a fast growing economy with a large baby boom generation (a group of people far-outnumbering the previous and future

generation) that has reached its peak income-productivity years may well see a relatively high savings rate due to the necessity to prepare for the future (the rising share of prime savers). The effects are also economically significant, with a 1% increase in the ratio of young people (the ratio of the elderly) over time reducing (increasing) private savings by 0.25% of GDP (Lee et al 2013, p.17), and the rate would be even higher if its financial markets are underdeveloped and thus credit-based consumption-investment is repressed while the motivation of precautionary savings is enhanced.

As savings are also the source of capital for firms to invest, of course, variations in savings in a given country cannot be independent of domestic investment; the amount of savings in an economy is a function of savings supply and investment demand, with the interest rate being the market price. Thus, investment demand relative to savings supply, that is, movement of interest rates, is an important variable affecting individuals' propensity to save (Harbaugh 2004, p.4). For instance, in case of $S < I$ in an economy rising interest rates would benefit savers at the cost of borrowers, whereas in the opposite case falling interest rates would sacrifice savers to borrowers. With such a flexible movement of interest rates, one can expect that the balance between local savings and investment would be made in the long run. But it should be noted that this is only true in a closed economy where cross-border capital mobility is restrained. With open financial markets where capital can be obtained either domestically or internationally (and thus domestic interest rates are determined internationally), savings in a given country can be relatively independent of domestic investment and growth (Harbaugh 2004, p.4). This means that rational decisions on savings are set free from local investment demands (and vice versa); the savers in a country with excess supply of saving over investment demand are now able to make their savings available in international markets at a higher interest rate than at home, and likewise the borrowers in a country with excess investment demand over savings are now able to borrow more cheaply.

Indeed, until the 1970s during which the so-called home-currency preference (savers' reluctance to accumulate foreign currency assets too much due to high transaction costs or investment risks) was strong, there were quite positive correlations between savings and investment within each country; thus confining the net lending or borrowing to near zero

(Feldstein and Horioka 1980). However, as is well known, the increased mobility of global capital based on the highly developed and integrated global financial system since the 1980s has significantly reduced the home-bias and thus led to a high level of international lending and borrowing activities (c.f. OECD 1999). Although this development has been expressed in the ominous form of growing current account imbalances between countries, it is in fact a reflection of the efficient worldwide distribution of savings through integrated global financial markets, and thus “may simply be one of the fruits of globalization” (Corden 2005, 2007; Coughlin et al 2006; p.6; Greenspan 2007, p.12). It is claimed that since nowadays there are few economies in the world which constrain their investment to their own level of savings, the international flow of capital assets, that is, cross-border savings and investment should be taken seriously into account when a country’s balance between investment and savings is analysed (Cooper 2008, p.9).

Viewed in this way (a point of view based on general equilibrium, in contrast to partial equilibrium), it is meaningless or even detrimental to a national economy to have an artificial current account balance target. It is absurd, for example, to argue that oil exporters have to use more of their huge trade surplus in domestic investments (in order to achieve external balance) regardless of the limited investment opportunities and low expected returns within their countries rather than in providing credits for oil importing countries where more profitable investment opportunities exist.

Also, international policy coordination as a ‘remedy’ for current account imbalances is seen as contradictable in itself because people in national economies on both sides of imbalances are already cooperating with each other through free markets to allocate resources most effectively. As the phenomenon of imbalances is a desirable outcome of free flows of money in an era of globalization, that is, “a harmonious system in which everyone is better off”, attempts to rebalance it by government forces are nothing but a distortion of the markets, sacrificing efficiency. There is no economic reason why the gains of savers in surplus countries and borrowers in deficit countries have to be transferred to borrowers in the former and savers in the latter, that is, why the government has to interrupt the rational choices of individuals; the role of government should be confined to the role of collective rational individuals institutionally complementing individual

decisions. In sum, any policy aimed at ‘adjusting’ the current account balance is unnecessary at best and harmful at worst, so the best way to solve a possible problem of imbalances can be found in the free market where movement of interest rates will equilibrate the ‘real’ balances (Whitman 1975, p.494).

Based on this framework, this perspective analyses the case of the US-China imbalances by tracing what specific situations in both countries led the collective rational individuals to make such peculiar decisions about saving and investment.

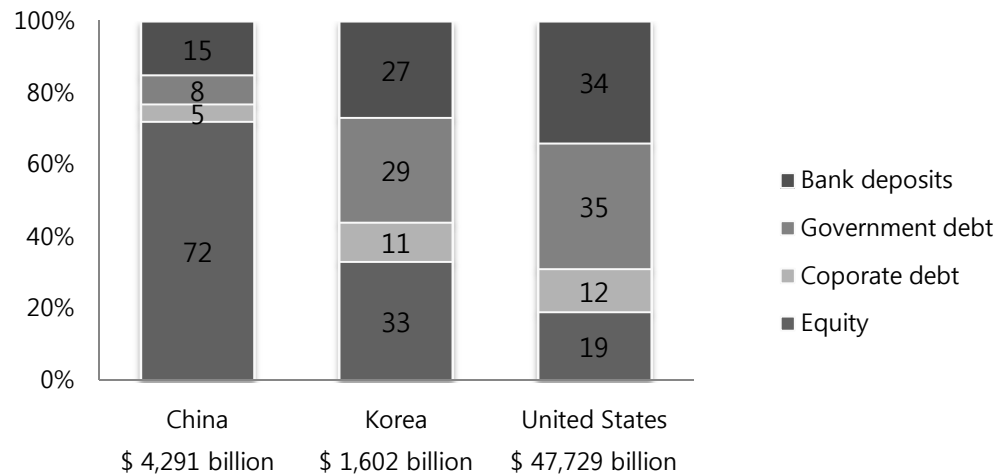
2.2. The causes of Chinese current account surplus

Since the early 1980s when Deng Xiaoping’s economic reforms started, China has witnessed a sharp increase in its national savings rate. Unlike the period of planned economy when consumption was repressed in favour of investment, most of these savings were made voluntarily. Among others, two factors are frequently singled out as the main reasons for the high savings rates: underdeveloped financial markets and a pattern of demographic development peculiar to China.

The first reason why people decided to save so much lies in the underdeveloped status of financial markets. There are diverse indicators showing the immaturity of financial markets in China. First, Figure 1 shows that China’s financial system was exceptionally bank-centric with the domestic bond and equity markets remaining shallow; banks were intermediating more than three-quarters of the economy’s total capital, compared to about half in other emerging economies and less than 20% in developed economies (Dearie 2013, pp.3-4). Adding to the problems of over-regulation by local government over the state-owned commercial banks (SOCBs) and the following strong lending bias in favour of the SOEs, such a shallow capital market translated into significant credit-constraints upon private firms and households as shown in Table 2.7 and Figure 2.2 (Valderrama 2008; Firth et al 2009; Yeung 2009; Poncet et al 2010). In Table 2.7, the financial development indices of the World Competitiveness Report clearly indicate the underdevelopment of China’s financial system in relation to other countries by 2007. Figure 2.3 shows the trend of private credit-to-GDP ratios, an indicator capturing the changing ability of financial intermediaries

to efficiently allocate credit in an economy. One can see from the figure that unlike the disparity between the US and South Korea which remained stable over time, that between the US and China was growing during the 1992-2007 period, which means China's financial markets remained relatively immature and illiquid.

Figure 2.2. Financial Stock Components of Selected Countries (2004) (%)

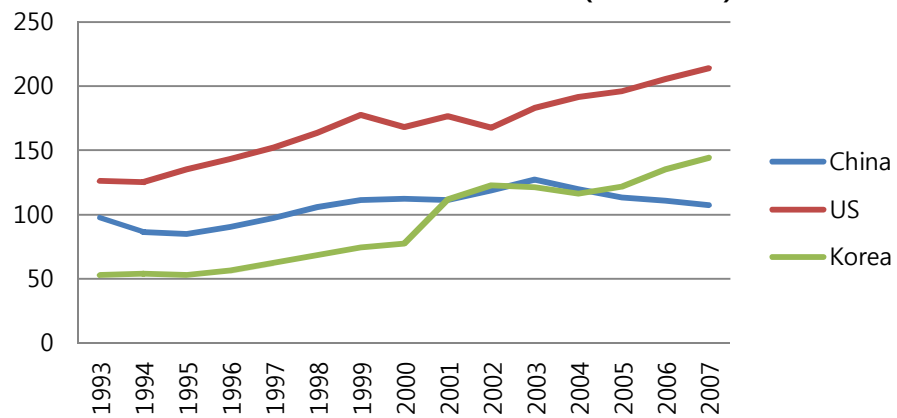


Source: *Global Financial Stock Database*, McKinsey Global Institute 2006, p.13.

Table.2.7. Financial development Index, 2007			
	The US	Korea	China
Financial market sophistication (mean 4.3)	6.5 (rank 3)	5.2 (35)	3.8 (rank 83)
Financing through local equity market (mean 4.2)	5.5 (rank 6)	5.4 (11)	4.1 (rank 80)
Ease of access to loans(mean 3.4)	4.8 (12)	4.4 (26)	2.7 (99)
Venture capital Availability(mean 3.2)	5.1 (1)	4.3 (16)	3.3 (49)

Source: World Economic Forum 2008, Table 8.01 – Table 8.05.
(1 = poor by international standards, 7 = excellent by international standards)

**Figure 2.3. Domestic credit to private sector
between 1993 and 2007 (% of GDP)**



Source: World Bank Database, *Domestic credit to private sector (% of GDP)*, <http://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS> (accessed 4 May 2010).

The lack of sophisticated financial products such as personal loans, credit cards and mortgages made it difficult for households to expand consumption in the present by drawing on future income, and thus driving up the propensity to save (households were saving on average roughly half of their income). For example, due to the undeveloped mortgage markets Chinese households intending to buy a house had no choice but to save a large amount of money over a long time. Also, very limited accessibility to banking credit forced private firms to increase their savings (to retain profits) to ‘self-finance’ their investment. Indeed, close to 80% of private firms’ investments was financed by these ‘self-raised’ funds – rising from above 60% two decades ago (Huang and Tao 2010, p.8; Goldstein and Lardy 2008, p.112). Meanwhile, both households and firms had to commit themselves to a large sum of precautionary savings due to the little means (insurance products as well as the availability of temporary borrowing) to deal with the uncertainty about future income.

It is argued that the second and more important reason for the high savings rates lies in the demographic features of China. There have been a number of studies based on a lifecycle model (Modigliani and Cao 2004; Horioka and Wan 2007; Horioka 2010; Song and Yang 2010; and Fan and Zhu 2012), emphasizing the importance of the unique age structure of the population (the compressed demographic transition) in understanding savings

behaviour in China.

Indeed, China's demographic development was quite unique mainly due to the one-child policy enforced from 1979 which is estimated to have prevented 250 million births between 1980 and 2000. With fewer children to care for, as Figure 2.4 clearly shows, China's dependency ratio (an age-population ratio of those aged over sixty five and below fifteen and those aged between 15 and 64) rapidly dropped from 69% in 1980 to 42% in 2005, while the working age population as a portion of total population surged from 59.3% to 70.5% during the same period. But because of the artificially restrained younger generation, it was expected that the dependency ratio, driven by the ratio of workers to retirees rising much faster than conventional trends, will start to surge from around 2010 to reach 64% by 2050, while the working-age share of the population (i.e. 15-64 year-olds as percentage of total population) would peak around 2010 at 72.2% and then steadily decline to 60.7% in 2050 (considering the fact that Chinese workers retire at a much earlier age than 65, the actual portion of working age population would be much lower than the official figures) (Trinh 2006, p.4).

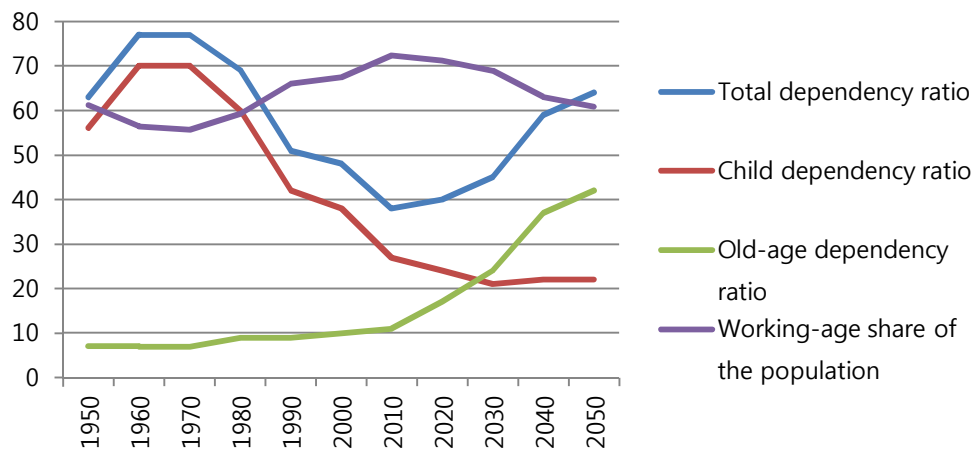


Figure 2.4. Changing demography in China between 1950 and 2050

Source: Calculation from the data of UN World Population Prospects: The 2006 Revision

In sum, China's population was expected to age rapidly in the next 50 years with the working population largely replaced by the smaller population born after the one child policy (Ma and Li 2010, pp.7-8). Under the permanent income hypothesis, this change in demography, - an expected decline in working population (and thus income) in the future will lead to an increase in current savings so that the difference between future and current

income is minimized, realizing inter-temporal optimization (Lee et al 2013p.17). Indeed, according to some estimations China's saving rates would continue to rise until the year 2011 when the working-age share of the population would peak (Lee et al 2013, p.5-6). It follows that considering the rapidly changing age-structure of the population the high saving rates (and thus the persistent current account surpluses) seen by the mid-2000s were a result of rational decisions over the optimization horizon rather than something 'excessive' resulting from irrationality.

In fact, there are a number of studies even arguing that the level of savings in China, contrary to popular opinion, was far from sufficient to cope with a compressed demographic transition. They focus attention on the growing pressure upon the pension funds (Jackson et al 2009, p.2; Franzier 2010 p.59; Ma and Yi 2010 p.8). From the introduction of expanded pension insurance in 1997, the pension fund surplus (so-called "demographic dividend") continuously expanded as the dramatic growth of new pension contributors exceeded the increase of the retirees drawing pensions. This demographic dividend made it possible to finance pension benefits to pensioners from current pension contributions. But this favourable situation was expected to shortly come to an end (i.e. pension expenditure for current pensioners was expected to exceed pension contributions by current workers), considering the growth rates of pensioners (2.8% per annum between 1991 and 2005) were even higher than the growth rates of the working-age population (1.1% during the same period)(Jackson, Nakashima, and Howe 2009, p.2;Franzier 2010 p.59; Ma and Yi 2010 p.8). Worse, considering the exceptionally high speed of demographic shift the financial pressures on the pension system were shown to be severe in the coming decades. Such an expected pressure was well known as the so-called "four-two-one" problem, describing a situation in which one child has to care for two parents and four grandparents (Pozen 2013). Unless either the contribution rates or the fund's investment rate of return was raised, the system would certainly be unsustainable in the long run.

This growing pressure upon the pension funds partly explains why the monetary authorities eagerly engaged in financial investments overseas. In order to make the pension system sustainable in the long run, the funds invested in government bonds and bank deposits at low interest rates were reinvested in foreign financial markets that provided more

profitable investment opportunities (Lardy, 2012, p. 65, Franzier 2010, p.59). It is argued that any assessment of the central bank's activity, absorbing domestic savings and then reinvesting them in foreign developed financial assets, should be made in this context. The nature of the activity was not different from that of 'carry trade', a rational action of interest rate arbitrage that Germany and Japan with an issue of aging population actually undertook over the past 30 years. Indeed, because of the ever-growing amount of domestic savings and interest rates lower than those on foreign assets, the central bank was able to make huge profits from those activities; in 2007, for instance, a net income of RMB243 billion made the PBC the 'world's most profitable bank' (The Economist 2007). As long as the interest rates paid by the central bank on its bills are lower than corresponding interest rates on foreign assets, these investment activities will remain profitable, and gains from interest rate arbitrage might be useful to supporting pension funds (Yu 2007, p.262; also see Wang 2010).

Also, beside the profitability question, China's purchase of foreign assets can be vindicated by the immature domestic financial market that has remained poor at channelling resources from savers to investment-consumption demands. A very large pool of savings in the context of an inefficient financial system tended to cause undisciplined lending activities entailing a chronic problem of growing non-performing loans (NPLs) (e.g. in 2003, for instance, reported NPLs were estimated at about 30 per cent of GDP) (Lee et al 2012). Pointing to this problem, Corden argues that "it seems perfectly rational to invest some of the extra savings abroad given the inefficiency so far of the financial system in allocating funds – as reflected in the high volume of non-performing loans held by the banks. The public sector also, has yet to improve the efficiency of public investment. It seems extremely reasonable therefore to "park" a proportion of funds abroad until efficiency in domestic investment allocation improves" (2007, p.5). The remaining question for China was then which foreign market should be the recipient of those investments. It could be emerging markets such as Brazil and India providing relatively high bond rates. But it was still the US that was able to supply the most safe and easily tradable fixed income instruments in the global financial market.

2.3. Causes of US current account deficit

As discussed earlier, demographic features are an important factor influencing people's and even governments' decisions on savings and investment; while the ageing of society with low birth-rates and declining numbers of young adults makes it necessary to prepare for an income in old age and for future generations through savings today, a society with a relatively younger population would want to consume and invest now in expectation of higher income in the future (Cooper 2007, p.97). These motives and behaviours of inter-temporal trade deriving from demographics partly explain the cause of the US current account imbalance. Unlike most developed countries and China, which had to some extent seen rapidly ageing populations and were expected to see the number of young adults decrease, as Table 2.8 shows, the US was expected to experience an increase in the number of young adults over the next two decades and this increase could be greater if immigration was predicted to remain at current rates. Under the permanent income hypothesis, it is no wonder that this expected increase in income (working population) in the future would reduce current savings so that the difference between future and current income can be minimized. In light of this consideration, some economists dealing with the US' low saving rates have emphasized that what appears to be unbalanced from a short-term perspective may well be seen as a balancing activity over a long-term horizon (Coughlin and Pakko and Poole 2006, p.7).

Table 2.8. Population Projections of the Number of Aged 15 to 29, in the year 2005 and 2025

Country	Population (Millions)		Change (%)
	2005	2025	
China	321	259	-19
Japan	22.6	17.8	-21
Germany	14.2	11.9	-16
United States	61.9	66.0	+7

Source: Cooper (2007)

In addition to the demographic feature, it is noteworthy that there was a remarkable acceleration of US labour productivity growth since the mid-1990s (Ferguson 2005; Valderrama 2007; Griswold 2007). The U.S labour productivity growth, which had been quite tepid at the annual rate of 1 – 1.5% in the two decades prior to 1995, began surging to

nearly 3% since then. More importantly, the acceleration was in clear contrast with the trend of other industrial countries, whose productivity growth rates still remained around 1.5% on average during the same period (Germany with 1.65%, Canada with 1.69%, France with 1.81%, Italy with 0.68%, and Netherlands with 1.02%)(OECD). This surge of labour productivity peculiar to the US economy was arguably due to the improvements in technology led by the IT revolution, innovations in business processes including inventory management, deregulation of the labour and financial markets, and the growing imports of cheap materials and intermediaries, in particular low-tech and labour-intensive goods made in China (Valderrama 2007). The surge in labour productivity growth raised the expected future income and rates of return on US investments, and thus encouraged people to spend and invest more immediately so as to enjoy the benefits of future income growth (Ferguson 2005).

It should be noted that in order to fully draw the expected higher income in the future (reflected in both the demography and productivity growth) to the present consumption and investment, that is, in order to realize inter-temporal optimization in an economy, there should be highly efficient financial markets capable of attracting the world's pool of savings (capacity to offer the rest of the world financial claims against future US output and income) (Iley and Lewis 2007, p.78). As is well known, the US has held the status of the world's leading country for financial infrastructure and capacity for innovation, and the most manifest example was the development of mortgage-backed securities (MBS) that emerged since the mid-1990s. Mortgage-backed securities, by providing higher returns on safe assets, significantly extended foreign demand for them, while enabling American citizens to acquire and borrow at lower costs against growing housing wealth. Indeed, since the mid-1990s the growth in foreign purchases of US mortgage-securitized bonds was phenomenal; the IMF (2006) estimates that foreign holdings of MBSs were worth close to \$1 trillion by March 2006, representing about one-third of the increase in net foreign savings inflows since the mid-1980s. Even foreign official institutions increased their holdings of asset-backed securities during the half of the 2000s, so much so that such assets came to account for nearly 9% of all the foreign official holdings of US debt securities in 2005 (IMF 2006, p.8).

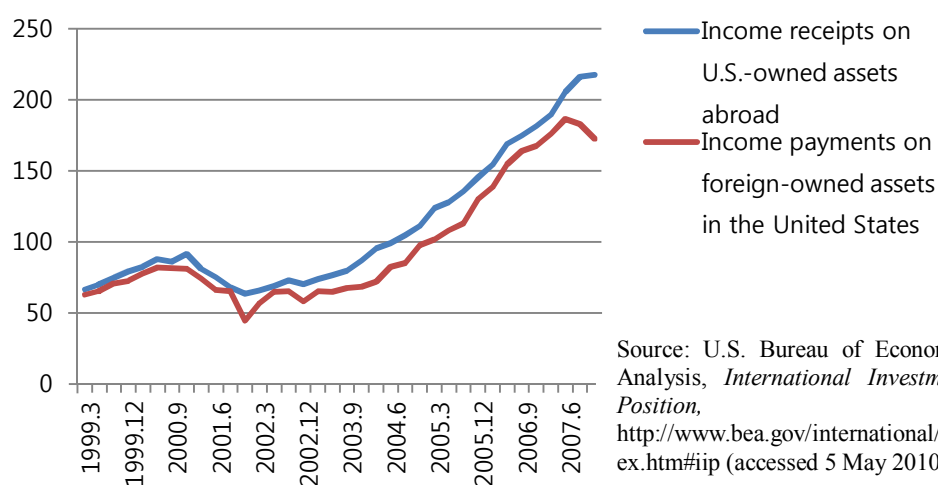
In addition to innovative capacity, the attractiveness of investment in the US derived from its unrivaled safety. Generally it is assumed that international capital flows should head towards relatively poor countries where the ratio of capital to labour is lower and the expected rate of return is higher than in rich countries. This conception is only partly true as cross-border investments necessitate a high level of reliable social and institutional infrastructure of the recipient country such as rule of law, secure property rights, an advantageous tax system, and quick and fair dispute settlement (Greenspan 2007 p.3; Cooper 2008, p.5; Elwell 2008, p.6). Investors may well want to keep their investment secure by means of low-risk repository and this concern is often given priority over profitability. As far as risk management is concerned, it is often said that the U.S. has long been unrivalled in the world. Indeed, there is little or no possibility of default in foreign investment in U.S. assets since the American dollar is the international means of payment (Serrano 2003, p.1). This is the reason why the U.S. assets are most preferred whenever the uncertainty over the global economy is rising and why investors abroad increasingly hold relatively low-yielding US Treasury securities. Making the safety more attractive, yields on the low-risk US debt instruments was higher than yields on those in other 'developed countries' such as Japan and European countries (Cooper 2007, p. 100). Considering the frequent financial crises and slow recoveries among emerging markets from the mid-1990s, it was not surprising that such a high expected return along with low risks directed global investment funds towards the US markets which was the flip side of the current account deficit that followed.

Adding to reliability and profitability, the so-called 'market size effect' rooted in the deep and wide US financial market also influenced the attractiveness of American assets (Elwell 2008, p.7). US financial markets are the largest in the world, accounting for more than 40% of the world's stocks and bonds (over 50% of the world's marketable securities) (McKinsey Global Institute 2006). This unrivalled size of markets not only offers a wide range of instruments of different risk-return composition, it also provides investors with very liquid markets in which huge sums of money can be handled without unfavourable impacts on prices. Among others, the most attractive markets peculiar to the US were the highly liquid government securities markets for bonds and Treasury bills. A study found that between 1980 and 2000 the average turnover rate for Treasury bills was significantly

higher than that of shares on the New York stock market (13.9 times per annum compared with 0.575 times per annum) (Wood 2006). Unsurprisingly, such a high liquidity induced investors, in particular foreign governments and their central banks, to invest a large share of official reserves in US government securities.

Consequently, the abundant capital flows into the US economy (involving current account deficits) was due to the expectation of a low-risk good return, reliable political institutions and innovative financial markets providing ample liquidity. Interestingly, the provision of these safe and liquid investment opportunities, that is, the superiority of the US financial system enabled the US not only to meet the excess investment demand over domestic savings but to repackage the funds and invest them back into the rest of the world. As a result, the US was able to maintain a net investment income surplus for a long period in spite of the persistent current account deficits. The investment income balance shows the difference between earnings on foreign investments and payments made to foreign investors (interest, dividends, rents and profits on past overseas investments, and net of debt servicing by US residents on foreign liabilities). Therefore it is often taken for granted that the US, with its net negative investment position, would run an income balance deficit by a large margin, that is, the increasing cost of net liability. Surprisingly, however, the truth is that the US economy has never been in the red as Figure 2.5 shows, and therefore, the US cannot be said to have been a net debtor country when measured by the burden of payments.

Figure 2.5. US Investment Income Balance between 1993 and 2007 (Billions of Dollars)



Given the fact that the amount of foreign-owned assets in the US was much larger than US-owned assets abroad the only answer for this puzzle would be in the different rate of return on the assets. In other words, the US earned a higher return on its stock of assets abroad than it paid out on the larger stock of foreign liabilities (Higgins and Klitgaard and Tille 2006, p.6; Cooper 2007 p.102; Hung and Mascaro 2004, p.2). Indeed, the average annual rate of return on US investment in foreign countries since 1990 was approximately 10 per cent, while that on foreign investments in the US was only 6.2%. Some argue that this was because US claims on the other countries were mainly comprised of equity investment such as direct investment and portfolio investment (61%), whereas foreign investors preferred to invest in US debt instruments such as government bonds (65%). In 2007, for example, the US investors held foreign stocks worth \$5.2 trillion, while foreigners held \$3.1 trillion invested in US stocks, which is comparable with the amount of US debt securities held by foreigners (mostly comprised of risk-free treasury securities) amounting to \$6.6 trillion in the year (Shirai 2009, p.7).

In this sense, Americans played an important role in taking risk on behalf of foreigners, selling relatively low-risk fixed-interest claims and buying high risk high return equity around the world (Cooper 2004). Describing the event, Poole (2004) argues that it is useful to think of US financial markets as a whole as a world financial intermediary or 'the world's largest investment bank', facilitating efficient resource allocation and risk sharing in the integrated contemporary global financial system (Mendoza, Quadrini, and Rios-Rul 2007). Such an efficient allocation of resources allegedly allowed all the participants to have gains. For instance, the Chinese monetary authorities' purchase of dollar-denominated assets benefited US borrowers, especially the U.S. government and its future taxpayers by lowering interest rates (Corden 2009, p.116). In turn, these benefits of the US were to return to China in the form of direct investment in FIEs, making contributions to employment and household income in China.

Meanwhile, in terms that the US had actually made money on being a net debtor for a long period, some economists question whether the US deficit even existed in any meaningful sense (Hausmann and Sturzenegger 2006; Cline, 2005a; Iley and Lewis 2007, p.3). They see the global role of US financial markets as a powerful proof that can wipe out the

concerns about the sustainability problem (i.e. the growth of debt-service burdens). It was in this consideration that Greenspan said “I would place the U.S. current account [deficits] far down the list of imbalances to worry about” (Greenspan 2007, p. 347). Indeed, from this perspective there is no reason why the imbalances should be a matter for public policy concern; rather it should be left to financial markets where capital flows will set in train their own adjustments.

2.4. Summary

Neo-classical economics sees current account surplus or deficit as an expression of the many millions of individual saving and investment decisions seeking the best use of their resources. In explaining China’s large current account surpluses and the US large deficits, they thus focus on such factors influencing aggregate savings decisions as demographic structures or the development of financial markets (credit accessibility) in each country. By examining the factors, they derive the imbalances from the simple fact that, in China, the majority of individuals wanted (and had) to save now and consume later, while the situation in the US was just the opposite to China. They also point out that these individuals’ savings activities pursuing inter-temporal utility maximization were significantly facilitated by the revitalization of international lending and borrowing activities since the 1980s. In other words, the integrated contemporary global financial markets made it possible for the Chinese savers (either individuals or the monetary authorities) and American borrowers to save or borrow at an international interest rate that would be more favourable than domestic rates. Consequently, the Sino-American current account imbalances were an outcome of economic agents’ rational savings decisions in each country backed by the free global financial markets facilitating efficient resource allocation, or financial cooperation for mutual interests between countries. Thus, any government’s attempts to ‘adjust’ the imbalances would end up distorting the efficient market and sacrificing people’s welfare.

3. Conclusion

This chapter has explored two contrasting perspectives of mainstream economists. It is true that each perspective has its own explanatory power based on ample empirical evidence.

But it is also true that their explanatory utility is strictly confined to a specific dimension of the phenomenon they focus on. For example, Keynesian-inspired views well explain the reasons why the imbalance was a crisis-ridden development, and what roles the state policies played in developing the affair in that way. But they do not explain *why* the governments first employed and then adhered to such imbalance-inducing policies in spite of the growing instability owing to the imbalances. Rather than paying attention to the socio-economic context that drove the governments to such policies, they tend to simply attribute the policies to ‘misguided’ policymakers. Neoclassical-inspired views, on the other hand, well explain the fact that the imbalance was an outcome of international cooperation for gaining mutual interests through the global financial markets. But they also overlook the broader social context which *forced* economic agents (both public and private) to make such an economic decision. By disregarding the crisis-ridden political economic context, they do not explain why the individual economic decisions that appear ‘rational’ came to constitute the ‘irrational’ crisis-ridden macroeconomic landscapes.

From the Open Marxist perspective, the fundamental shortcomings of the views of mainstream economics are believed to lie not in their detailed flow of logics or empirical research but in their starting and ending point of study; the reified notion of the state and the market itself. Both of the views do not see the state and the market as forms taken by capitalist social relations of production but as some ‘things’ that can mysteriously determine our social life, that is, some external determinants that are autonomous from the society they originated from. It follows that, by not interrogating the social foundation of the state and the market, they confine their own explanatory power within the arbitrarily and narrowly assumed role of the state or the market.

Chapter 3. Perspectives of Critical IPE and World Systems Analysis

This chapter reviews the perspectives of critical IPE and World Systems analysis on the Sino-American global imbalance. Unlike mainstream economics that derives the global imbalance from the actions of economic agents, these perspectives seek to locate the cause of the phenomenon in the international political economic system. As will be discussed in the first section, critical IPE theories see the global imbalance as an outcome of the deficient current international monetary system that allows the US to run high deficits while making capital flow ‘uphill’ from developing countries to the US. On the other hand, some World Systems analysis perspectives, based on the observation of the long-term historical evolution of world order, view the deepening imbalance as a symptom of declining American hegemony coupled with a new rising hegemon: China.

1. Perspectives of Critical IPE

1.1. The concept of structural monetary power

From the perspective of mainstream economics, the global imbalance is basically a result of developments and policies within national economies. In the mainstream of the discipline attention is not paid to the international monetary-payments system itself, because ‘the system’ is taken to mean a mere combination of national economies that does not have its own meaning. Criticizing this narrow viewpoint, critical international political economy⁹ (IPE hereafter) theorists argue that the global imbalance can be better

⁹ Generally, the term ‘critical IPE’ indicates an approach developed by a group of scholars who focus more on ontological enquiry into the historical evolution of the existing international political economic system than on empirical research questions related to the behavior of actors within the system. More specifically, the term has been applied to an approach developed by Robert Cox (1981, 1983) and so-called ‘Coxians’ who have developed their ontological enquiries with the help of the theories of Gramsci and Polanyi in opposition to what they call ‘problem solving theory’ of orthodoxy. According to Cox and his followers, problem solving theory means orthodox theories that tend to seek practical solutions to problems within the parameters of the established world order. By presuming the existing order is natural and constant, it is argued, problem solving theory actually contributes in maintaining the status-quo of prevailing unequal power relations (Bieler and Morton, 2003). Unlike problem solving theory, Cox (1981, p.129) argues, critical theory “does not take institutions and social and power relations for granted but calls them into question by concerning itself with their origins and whether they might be in the process of changing”. In doing

understood when it is seen as an outcome of inter-state political relations at the system level. For critical IPE theorists, the international monetary and payments system is not a neutral ‘economic’ arena independent from ‘political’ relations, but a structure constituted by the current international monetary power relations. From this perspective, thus, it is not possible to understand the phenomenon of global imbalances without understanding the concept and dynamics of international monetary power.

Theoretical attempts at conceptualizing ‘monetary power’ begin with the observation of the process in which balance-of-payments disequilibria are adjusted (Andrews 2006; Kirshner 1995; Bergsten 1996, pp. 12–45; Kaelberer 2005). In general, large balance of payment imbalances that raise the possibility of crises inevitably require both sides of a trade relation to embark on a radical policy turnaround even if it would be highly costly in both economic and political terms. But the necessity of mutual adjustments does not mean that the cost of adjustment (the so-called burden of adjustment involved in an unwanted exchange rate adjustment and/or macroeconomic contraction/expansion) is always distributed symmetrically between related countries; the distribution tends to be made politically and thus asymmetrically. Indeed, it is not difficult to observe the fact that some countries considered more powerful than others in terms of monetary power can unilaterally decide, in accordance with their own key policy goals, on when and how to adjust external balances, while the weaker counterparts have no choice but to accept the externally-imposed decision and sacrifice their policy autonomy¹⁰. In this sense, as Kirshner suggests, "monetary power is a remarkably efficient component of state power...

so, it is believed that critical theory is able to not only capture the fundamental dynamics of the existing system but also make the idea of structural change possible.

In this section, I will be dealing with an IPE approach that interprets the Sino-American imbalance as an expression of America’s power structuralised in the contemporary international monetary system. Unlike other IPE approaches which take the US-centered existing global economic system for granted and then focus on practical solutions to the imbalance within the system (e.g. policy suggestions for the US managing the problem of ‘rising China’), this approach takes issue with the existing system or order itself (e.g. the dollar-based monetary system) and then sees the crisis-ridden imbalance as a political consequence of it. In line with Cox's notion of the 'critical' character of IPE, I refer to this approach therefore as 'critical'.

¹⁰ Cohen (2004, p.6, 2006) defines monetary power as states’ capacity to pursue its own key policy goals relatively free from the pressure of external imbalances either by delaying adjustment (‘power to delay’) or by deflecting the burden onto other states (‘power to deflect’).

the most potent instrument of economic coercion available to states in a position to exercise it." (1995, p. 29). The concept of monetary power in this way hints that any discussion of the growing global imbalances needs to start with the question of America's hegemonic monetary power: how the US exerts its power based on the dominance of the dollar (Vermeiren, 2010, p.8).

Critical IPE theorists further elaborate the concept of monetary power (especially the US hegemonic monetary power) by means of the concept of 'structural power' (Strange 1986, 1987, 1988). Strange defines structural power as "the power to shape frameworks within which states relate to each other, relate to people, or relate to corporate enterprises", which is conceptually distinct from 'relational power' i.e. directly visible forms of power referring to "the power of A to get B to do something it would not otherwise do" (1987, p.564; 1988, p.25). Expressed another way, structural power is a state's ability embedded in the structure, enabling the state to achieve policy goals without putting pressure directly on other states. In general, a dominant state wields its structural power by manipulating the incentive structures of the global economy in favour of itself, or just by refusing to actively adapt itself to the existing rules unfavourable to itself (Helleiner 2006, p.75). Critical IPE theorists emphasize that power in such a more depoliticized and thus less visible form is more powerful than power in an evident form, since it tends to be "broadly accepted as an unavoidable, if regrettable, consequence of inequality – a veritable fact of life" (Cohen 2004, p.10). And they argue that one of the most important realms in which structural power is exerted is the international monetary system; in other words, monetary power is exercised in the form of structural power.

It is argued that this concept of 'structural monetary power' is critical to overcoming the economists' limited understanding of the global imbalance, because only through the concept can one grasp the political context of the phenomenon such as the international politics of the US dollar or the political role of US-led financial liberalization. Also, it is believed that the concept of structural monetary power helps one overcome the conventional view of hegemonic stability theories which see the growing US trade deficit and the lack of effective international cooperation as a manifestation of declining US hegemonic power (see Gilpin 1987; Krasner 1976; Milner 1992, p.468). As will be

discussed below, structural monetary power analyses of critical IPE reveal that the “US’s ability to constantly re-finance its debt obligations is not a sign of weakness but evidence of its great structural power in financial relations” (Seabrooke 2001, p.105).

1.2. The dollar, the unregulated global financial market, and the exorbitant privilege

Studies of the global imbalances based on the concept of structural monetary power tend to begin with the global primacy of the dollar since they hold that the power relationships and inequalities of the global economy are inherent in the fact that the global money is American national currency and not the world state’s currency. Despite the advent of the euro and the periodically erupting worries about ‘unsustainable’ US debt accumulation, the dollar has not lost its international preponderance in any meaningful sense (Goldberg, 2008, 2010, ECB 2005). As Benjamin Cohen suggests, indeed, the dollar remains as “the only truly global currency, used for all the familiar purposes of money – medium of exchange, unit of account, store of value – in virtually every corner of the world”(2003 p.2).

The dominant role of the US dollar in the international monetary system can be examined by various measures. Firstly, the dollar functions as international cash: a substantial share of dollar notes are held outside the US territory. By the mid-2000s, approximately \$580 billion or about 65% of US total banknotes was circulating overseas (US Treasury Department 2006). Also, the greenback is the most favoured vehicle currency in international transactions. For example, nearly 90 per cent of foreign exchange transactions and more than half of total world export and import transactions are made by means of the dollar (Goldberg and Tille 2006; Kamps 2006). The dollar is also dominantly used in international financial markets, where about two fifths of international bonds and approximately three-fifths of foreign currency deposits are based on the dollar (Cohen 2003, pp.3-4). Probably the most widely used measure showing the dominance of the dollar is its position as a leading international reserve currency (the foreign currency deposits and bonds maintained by monetary authorities and governments). As Table 3.1 shows, the dollar’s prominence in the portfolios of foreign governments’ official reserve accounts has been unequivocal and has not significantly reduced since the 1970s.

	1973	1987	1995	1998	2001	2004	2007
US dollar	64.5	53.9	59.0	69.3	70.7	66.0	64.1
Major European Currencies	6.7	29.5	27.0	17.1	-	-	-
Euro	-	-	-	-	19.8	24.9	26.3
Pound sterling	4.2	1.9	2.1	2.7	2.7	2.6	4.7
Japanese yen	0.1	6.8	6.8	6.2	5.2	3.8	2.9
Other	24.7	8.1	5.1	4.8	1.5	2.1	2.0
Note: 'European currencies' include Deutschmark, French franc, Netherlands guilder and ECUs Note: the figures only deals with allocated reserves/ Source: IMF Statistics Department COFER database and International Financial Statistics, available at http://www.imf.org/external/np/sta/cofer/eng/cofer.pdf							

From here a simple logic derives: the fact that dollar notes and dollar-denominated assets are widely used by the rest of world means there is a constant pool of cheap and interest-free credit available to the US economy (Cohen 2006; Helleiner 2006; Kirshner 2008). To put it another way, the rest of the world's sustained demand for the dollar automatically delivers the US an extraordinary capacity to finance payments deficits by supplying dollar debts to the world (Gowan 1999, p.30). This capability "may well be the most significant attribute of power in the international monetary system" (Strange 1982, p.81). Indeed, as a "Hegemonic debtor" free from the usual drawbacks of being a debtor economy, the US has been able to advance self-centred and even highly risky policy goals without regard for its current account and fiscal balances (Wade 2003, p.82). The Bush administration's war on terror coupled with drastic tax cuts was a typical example of this ability. At that time, foreign holdings of outstanding US treasuries soared from \$884 billion (35.2%) in 2000 to \$1,965 billion (56.9%) in 2007 (US Treasury 2008, p.8), which enabled the government to run budget deficits without worry about 'disciplinary' responses from international financial markets. Further, thanks to this power to overspend throughout the past decades, the US has been able to make the rest of the world's growth dependent upon the growth of US markets (not vice versa), positioning itself as a Keynesian world state that supports global demand by consuming more than it produces even if the deficit is made only for the US own interest. Pointing at this ability of the US, Strange (1987, pp.568–9) writes that "in most countries, whether the balance of payments is in surplus or deficit indicates the strength or weakness of its financial position. With the United States, the exact converse can be true. Indeed, to run a persistent deficit for a quarter of a century with impunity

indicates not American weakness, but rather American [structural] power in the [world] system”.

Foreign savings constantly flowing to the US financial entrepot has been used not just to finance the US current account deficits but to be reinvested around the world (developing countries in particular) to the benefit of American financial businesses. Such an activity of recycling dollars has been proved profitable enough to allow the US to receive a positive net income flow from its foreign assets and liabilities despite the negative net international investment position since the 1980s (Gourinchas and Rey 2005). The profitability derives from the risk (or conversely liquidity) characteristics unique to the US external balance sheet. Foreign investors generally put their money into US debt securities in search of safety and liquidity, while the main purpose of US foreign holdings is higher rates of return (Portes and Rey 1998, p.309). Indeed, in 2005 whereas foreign claims on the US were highly concentrated in safe and liquid assets such as Treasury bonds and bank loans with an average return of 3.6%, most US foreign investments were tilted towards high risk yet high return assets such as corporate shares (i.e. FDI) with an average rate of return of 4.7% (see also D’Arista 2005, 2007; Duménil and Lévy 2004). This slightly more than 1% differential in rates of return allowed the US to earn net investment income of \$11 billion in spite of having a net foreign debt position of around \$2.7 trillion in the year.

In fact, such a gain of ‘a global system of financial arbitrage’ in the context of the structural cost advantage (liquidity/risk premium) owing to the dominant status of the dollar was what the US exactly envisaged in the 1970s when it rejected the proposal of Japan and Germany for an IMF-led international regulation of the massive amounts of petrodollars, and instead insisted on allowing those funds to be recycled by American banks (Konings 2005, p.51; Gowan 1999, p.21). This activity of recycling dollars has not just been profitable. It has also played an important role in consolidating and reproducing the dominance of the dollar-based global system by bringing about a volatile financial world order in which countries with financial vulnerability need to hedge financial risks by accumulating more reserves, thereby again parking their savings in US financial markets (Strange 1986; Helleiner 1994). This aspect of American structural power needs to be examined more closely in the context of the post-Bretton Woods financial-monetary

system.

From the 1970s the international financial system underwent systemic changes through successive deregulation and liberalisation. On the one hand, the change was initiated by tremendous expansion of international financial markets and the resultant regulation-vacuum growing from the 1960s. On the other hand, the trend was developed by the US government's successive policy decisions, resisting attempts at establishing a new formal international financial system replacing the Bretton Woods, in favour of American financial firms. The outcome of such change was the emergence of what Strange called 'Casino Capitalism' where uncertainty and instability associated with the volatility of capital flows came to displace governments' regulative power. In this new system, the role of governments has become strictly confined to efforts at reducing vulnerability to potential financial crises, instead of positively managing their economies at their discretion (e.g. pursuing expansionary policies for higher growth rates). The contemporary post-Bretton Woods system has become, in Kirshner's phrase, a system where "money rules, and policy must follow" (2003, p. 646).

As seen in the cases of Mexico in 1994-95, East Asia in 1997-98, Russia in 1998-99 and Argentina early in the new millennium, the crisis-ridden character of the international monetary-financial system has manifested itself through financial crises triggered by speculative attacks on vulnerable currencies, in particular those of developing countries. While the unregulated global financial flows searching for higher profit rates makes it possible for fast-developing countries to forgo domestic savings large enough for brisk investments, they simultaneously expose the receiving countries' 'overvalued' currencies to speculative attacks that would entail an abrupt capital flight and destructive financial crises. In fact, it is not too much to say that the pattern of speculative activities in the global financial market has been a sort of 'predatory lending', investing in financially vulnerable countries aimed at profits deriving from expected financial crises instead of profits accruing from the borrowers' success in businesses. In such a volatile and hostile global environment, any state open to an uncontrollable influx of hot money is obliged to brace itself for speculative outflows of the fund by building up a war-chest of precautionary reserves in time of peace (Feldstein, 2005). It is in this context that most

developing and emerging countries have come to stick with export-led growth strategies and to cherish an international creditor status at any cost (Vasudevan 2009, p. 300).

Viewed in this way, current account surpluses are not necessarily seen as an indication of superior economic performance; rather they are seen as a reflection of the traumatized states' desperate attempts to defend themselves from the growing volatility of global financial markets. Discussing the relation between such a trend and the global imbalances, Rajan (2006, p.4) points out that "one reason global imbalances have emerged is because emerging markets have recognized the risk posed by volatile cross-border flows, especially given the fragility of their financial and corporate systems. They have learnt to fit their investment coat within the domestic savings cloth they have available, even leaving a bit over to finance rich countries". It follows that faced with the unregulated global financial market which is increasingly beyond states' control, surplus saving has become not an optional but a necessary (structurally forced) policy goal.

Of course, the biggest receiver of the forced surplus savings has been the US which can provide the world's safest and most liquid *savings vehicles* based on its control power over the global currency, the dollar. What has been 'financed' by the flow of surplus savings toward the US is not just the American government's political projects. It has also paradoxically financed more US private investment abroad which would finally find its way back to the US in the form of purchases of safe dollar-assets such as US Treasury bonds (Lewis and Iley, 2007, p.183). Martin Wolf described this situation as follows: "by accident, the world has found a way to make the crisis-prone world of financial globalization work. Investors consider emerging market economies appealing destinations, but the governments of many of the most courted countries hate the idea of absorbing the capital. So they resist pressure for currency appreciation and recycle the inflow predominantly into US liabilities. The US then complains about the deficits, while enjoying the inflow of resources" (2006, p.28).

In sum, while rendering the US even freer from the external financial constraints, the crisis-ridden global financial system has compelled other countries, in particular developing countries, to accumulate more and more reserves and invest their accumulated

reserves in low-yielding dollar-denominated assets instead of higher-yielding investments in the developing world itself (Panitch and Gindin 2005, p.69) These countries therefore carry an opportunity cost of approximately one to two per cent of their GDP, clearly revealing the distributional implications of US monetary hegemony in favour of the US (Bibow 2009; Cho 2009; Rodrik 2006). Although financial globalization has been said to bring about a transfer of financial resources from capital-rich to capital-poor countries, the developing world's massive reverse accumulation has entailed a reverse transfer of resources, effectively subsidising America's over-spending and over-leveraging (Vermeiren 2010, p.19). This is "the paradox of economic globalization- it looks like "powerless" expansion of markets but it works to enhance the ability of the US to harness the rest of the world and fortify its empire-like power" (Wade 2003, p.87)

1.3. Unequal relations between the hegemonic debtor and vulnerable creditors

Many commentators and theorists have warned that the US' persistent current account deficits and the ever increasing foreign indebtedness (a rising ratio of NIID to GDP) would sooner or later cause a serious loss of confidence in the dollar, and thus induce a sudden capital flight away from dollar assets (Eichengreen 2011, p.160; Obstfeld and Rogoff 2004; Roubini and Setser 2004, p.43). Today, many believe the possibility of such a 'disorderly correction' and the demise of the dollar era has become even greater because of the advent of the euro as a potentially attractive alternative to the dollar (Cohen 2004, p.30).

It is undeniable that no nation can borrow indefinitely, and the US is not exempt from such admonitions. And it is also true that foreign agents may show unwillingness to hold dollar-denominated assets if there is a credible alternative to the dollar. However, there is little possibility of an uncontrollable collapse triggered by a run on dollars, turning the US from a hegemonic debtor into a normal debtor who must undergo drastic reductions in the deficit. This is because there is a mechanism embedded in the dollar-dominant monetary system that forces other countries, in particular those with their economies heavily dependent upon exports, rather than the US, to bear most of the burden of the falling dollar, and accordingly that makes them, however reluctantly, cooperate to stabilize the value of the dollar to protect their own interests. It follows that the dollar still remains, as famously put by John

Conolly, the American currency, but the world's problem. The mechanism of asymmetrical distribution of costs related to falling dollars, in Cohen's terms 'the power to deflect the burden of adjustment onto others' (2004, p.3), operates broadly in two channels: the effects on the prices of imports and exports, and the effects on the value of assets and liabilities.

First, the US is more or less exempted from the general negative effects of currency depreciation on domestic economies, while being able to enjoy benefits from it (Wade 2003, p.79). In general cases, currency depreciation entails a trade-off between improved price competitiveness of exports in foreign markets and decreased purchasing power of domestic consumers (affecting domestic growth and employment) due to the rising prices of imports relative to exports (fall in the terms of trade). As for the US, however, the cost, that is, a reduction of purchasing power caused by rising prices of imports is significantly less than in other countries due to the huge size of the American economy (Cohen 2004, p.31). The large size of economy has made the US the world's biggest and most important market for foreign exporters to the US, while the proportion of imports in the whole US economy remains relatively small. In case the dollar depreciates vis-à-vis other currencies, the latter feature ensures that the relatively small importance of imports in terms of US GDP (which accounts for mere 16%) mutes the impact of the falling terms of trade on total purchasing power. Also, the former feature leads foreign exporters (who are under competitive pressure to preserve market share in the US market) not to completely pass through the falling value of dollars to the dollar price of their goods and services, absorbing a part of the exchange loss through smaller profit margins. This practice substantially mutes the negative effect of dollar depreciations on US purchasing power and the domestic economy (see Elwell 2012). While falling dollars tend to have little influence on domestic consumption in the US, the trade deficit can be significantly reduced mainly thanks to the brisk growth of US exports in foreign markets. After all, there is little reason why the US has to be afraid of a falling dollar and thus little reason for it to sacrifice key policy goals for preserving the dollar's value, while the US would not bear the burden of falling dollars in terms of domestic growth and employment; the external balance can be restored by boosting foreign demand for US exports without curbing domestic consumption.

The fact that the burden of falling dollars would be little felt by the US means most of the costs would fall on major trading partners. The way in which they bear the burden is exactly opposite to the way in which the US escapes from it. Exporters in those countries who have to care about their price competitiveness and market shares in the US cannot raise their prices in dollar terms as much as the dollar value falls, and thus they cannot but see their profits in terms of local currencies fall. For countries whose economies are much dependent upon exports to the US, the negative effects of a falling dollar would be significant, because the falling profitability of exporting industries (let alone the deflationary pressures upon import-competition industries such as agricultural sectors) would transmit into lower investment and higher unemployment. In this case, the affected governments are strongly pressurized either to intervene to underpin the value of the dollar or to ease monetary and fiscal policies even if these would end up helping boost demands for US exports. These phenomena (the vulnerability of export-dependent economies to the so-called ‘dollar weapon’), indeed, has been frequently seen among the leading Asian exporters including Japan and China. In the case of China, the largest exporter in the world, during 2001–08, net exports and investment closely linked to building capacity in tradable sectors accounted for over 60 percent of its economic growth, up from 40% in the 1990s, and the share of the US in China’s total exports accounted for more than 30% during the period (Guo and N’Diaye 2009, p.4). It is not surprising that such a growing dependence on exports made China much vulnerable to exchange-rate-driven macroeconomic and financial shocks. Considering that Chinese policy makers must have learnt from a series of events that occurred in then-leading exporter Japan after the dollar dropped sharply vis-à-vis the yen in 1985 (a loss of competitiveness, output recessions, price deflation, an instability in interest rates, an exodus of FDI into the rest of East Asia, the balance-sheet problems of banks and corporations, etc.), it is not difficult to predict how China will respond to any large depreciation in the dollar (Wang and Zeng 2004, p.98).

The second mechanism through which the cost of falling dollars is unevenly paid by surplus countries in favour of the US is that of the valuation effect on foreign debt position. In general, currency depreciations directly worsen debtor countries’ net foreign debt position because most of their foreign liabilities are denominated in dollars. For the US, this effect of currency depreciations occurs in the completely opposite way; a depreciating

dollar directly improves the US net foreign debt position. This is due to the fact that US foreign liabilities are largely denominated in dollars (reflecting the exceptional ability of the US to borrow in its own currency), while US foreign assets are largely denominated in foreign currencies. Estimates suggest that almost all of US foreign debts are denominated in dollars, while some two-thirds of the US' foreign holdings are denominated in foreign currencies (Tille 2005). Due to this unique currency composition of the external account, a real depreciation of the dollar can reduce US net external debt by increasing the value of foreign assets (together with the US net investment income) with the value of external liabilities unchanged. Considering that US foreign assets amount to trillions of dollars, it can be easily estimated how substantial such valuation effects would be. For example, in 2006, despite the current account deficit amounting to a record high of \$811.4 billion, the total value of the US net external debt in the year rose only approximately \$300 billion because the dollar's depreciation increased the value of the stock of America's foreign assets by more than \$500 billion. In 2007, the impact of valuation changes even allowed the US net external debt to fall despite the current account deficits of \$638 billion (Elwell 2012, p.12).

The fact that the US benefits from the valuation effect of dollar depreciations directly means that major creditor countries have to take the costs instead; the cost of any depreciation of dollars would be imposed in the form of capital losses on their reserve holdings. When the dollar falls, the affected governments cannot help but see the value of dollar reserves in terms of their currencies fall, while the negative effects on exports and domestic growth would force them to increase domestic public spending. This negative valuation effect would be substantial to those governments with large dollar balances, and thus reserve policies of these governments tend to be constrained by what Larry Summers called a 'balance of financial terror' (Summers 2004). In case of a large fall of the dollar, they will be strongly incentivized to prop up the dollar with further dollar purchases in order to defend the value of existing dollar-denominated assets.

For example, because of the huge scale of Chinese dollar-reserve holdings (amounting to \$1,528 billion or 47.1% of GDP in 2007), it is estimated that each 10% decline in the dollar brings about a loss equivalent of approximately 5% of China's GDP (Helleiner 2010). Indeed, it is well-known fact that such huge exchange losses were the most likely

motivation for central banks of the East Asian exporters –by far the world’s biggest dollar reserve holders- to rush to buy up and support the dollar (rather than selling it off) when its value was rapidly falling in the early 2000s. As Table 3.2 shows, the investment made by official investors formed an increasing portion of total capital flows to the US between 2001 and 2004, while the importance of private investment was rapidly decreasing during the same period (Jackson 2010, p.5). This means foreign monetary authorities (mostly Asian central banks) played a critical role in turning the possibility of a sharp depreciation of the dollar (the hard landing scenario) into the gradual decline of the dollar (the soft landing) during the period (Vermeiren 2010, p.15-16).

	95-2000	2001	2002	2003	2004	2005	2006
Total Net Financial Account	1,230	400	501	533	532	701	809
Total Net Official	317	23	113	280	402	279	496
Total Net Private	913	378	388	253	130	422	313
Source: BEA, US Department of Commerce							

In this sense, it can be said that the position of a large creditor does not necessarily deliver the country much benefit in terms of policy autonomy; rather it can put the state in more than a little trouble and uncertainty. While the benefits of repelling a speculative currency attack are substantial, pursuit of export-led growth and accumulation of dollar reserves make their interests increasingly interlocked with the stable value of the dollar. Like it or not, they are compelled to recognize that their prosperity is dependent on the value of the dollar. Kirshner (2003) calls such a situation “entrapment”, where a participation in a currency system itself reinforces the dependence of the subordinate state on the dominant (p.167, p.268). Furthermore, “asymmetric interdependence” has promoted the US’ unilateralist tendencies in macroeconomic policy making, while the role of stabilizing the existing system has been assumed by other central banks and governments (Vermeiren 2010, p.14).

Viewed in this way, China is not an exception to “entrapment”; the rise of China, it is argued, should be seen in the context of American structural monetary power that China as a vulnerable creditor cannot help but accept. Although China with its huge surplus and relatively buoyant economy has been seen as an emerging power challenging the US, it is

not too much to say that the growth of China's economy is the growth of the dollar (of large accumulation of dollars), by the dollar (by the purchasing power of dollars), and for the dollar (for the stable value of dollars). It is obvious that momentarily China's policy-options are strongly limited by the fact that it is entrapped and constrained by the lasting structural power of Washington and the centrality of US financial institutions: what Wade (2003) called 'The Invisible Hand of the American Empire' (Chin and Helleiner 2008, p.87; Beeson 2009, p.108).

1.4. Summary

Critical IPE theories attempt to find the fundamental cause of the global imbalance in the international monetary system itself, rather than in specific policies or developments of each national economy. They point out that the current international monetary system (the so-called post-Bretton Woods system) is a kind of non-system in which the US dollar functions as *de-facto* world money, giving the American state and financial markets the prerogative status of a *de-facto* world state and a world financial intermediary respectively. In this system, the US can pursue any expensive self-centred policies without external financial pressures by using the world's surplus savings deposited in dollar-assets, while other states with a great stake in the US over-spending and the stable value of the dollar are forced to 'voluntarily' support the existing system by providing the US with cheap credits and export goods. In other words, the system itself enables the US to exploit the status of 'hegemonic debtor', while forcing other states to assume the role of 'cursed creditor'. From this perspective, it is seen that the growing global imbalance is the outcome of this structural monetary power of the US, or the lack of regulatory mechanisms controlling US external deficits at the global level.

2. View of World System Analysis and Giovanni Arrighi

World-systems perspectives, especially those developed by Giovanni Arrighi and his collaborators, see the phenomena of the Sino-American imbalances as an outcome of the long-term historic pattern of world capitalist evolution and hegemonic transition, that is, the rise of a Chinese-led East Asia as the emerging 21st century centre of a renewed world system, replacing the declining US-led 20th century world system.

They share the same view with critical IPE theorists that American structural monetary power in the context of the neoliberal financial order has given the US the exceptional capability to consume guns and butter far beyond its means at the expense of the rest of the world, and thus the global instability accompanied by the deepening global imbalances is mainly attributable to the US' unregulated self-centred policies. However, unlike IPE theorists who see the dominance of the US in the financial system as proof showing that "the decline of US hegemony is a myth" (Sassen 1996, p.18), world-systems analysts interpret the US' reliance on the structural monetary-financial power as a symptom of hegemonic decline: an expression of declining economic power in production or the US' financial predominance *in the absence of* clear economic predominance as a whole (Bergesen and Lizardo 2005, p.232). They see American prosperity sustained by the expansion of finance is illusory; the position of the financial centre based on the seigniorage privileges can only temporarily 'conceal' the crisis, because it as such cannot reposition the US as the epicentre of productive accumulation and thus preventing an ultimate problem of dollar rout (Arrighi 2005, p.27). Also, unlike IPE theorists who see the rise of China as an event confined to narrow limits of US-led structure, they see it as an emergence of a new structure actively constructed by China, i.e. a viable alternative to US-led capitalist development, opening up the possibility of spatial shifts in the epicentres of world accumulation.

2.1. The decline of American hegemony

It is often argued in world-systems analysis that American power is in sharp hegemonic decline, and has been since the crisis of the 1970s (Wallestein 2003; Arrighi 2005; Frank and Gills 1996). Perhaps the most systematic statement of this view has been put forward by Arrighi (2005). According to Arrighi, American hegemony, like its Venetian, Dutch and British predecessors, was built on its predominant economic power based on the ability to design and realise innovative combinations of productive 'resources' (labour, capital, land, energy, etc.), breaking through the accumulation crisis of the time (Arrighi 2007, p.231). World-systems analyses argue that the innovative reorganisation of capitalist production in the US opened a new cycle of global economic expansion, that is, the post-war long boom with the US placed in the centre of the system. The status of the global growth engine

enabled the US to mobilize international consent and cooperation necessary for building up self-centred political leadership, by providing followers with material and institutional incentives represented by the Bretton-Woods system and generous capital transfers (through military-economic aid as well as multilateral development loans) Based on such a material and institutional provision, the US carried on a truly hegemonic regime, in which the US benefited itself at the same time as leading other states on a particular development path (Arrighi 2005b, p.151-2). Indeed, for a decade or two after World War II the US-led regime of accumulation was considered successful in expanding profitability and growth with Europe and Japan rapidly rebuilt, and the Third World to some extent industrialized.

But these successes were a self-defeating process; the spread of economic growth on a world scale brought real competitors for US multinationals, undermining the profit rates of capitals operating in the very centre. In other words, the investment of an ever-growing mass of profits in production led to the accumulation of capital over and above what could be reinvested in production without significantly reducing profit margins. By the mid-1960s, the crisis of accumulation began putting growing pressure on the US economy. On the one hand, diminishing profit rates in productive investments led to low growth rates and high unemployment, depleting the source of government revenue. On the other hand, the political cost of managing the system was growing due to the rising unemployment inland as well as nationalist and communist movements that began picking up steam in the South. World Systems analysts argue that it was at this moment of the overaccumulation crisis that American hegemony turned into what Ranajit Guha called 'dominance without hegemony'. That is, from then on the US began pursuing the imperialistic strategies of 'accumulation by dispossession' (rather than accumulation by expanded production of surplus value), focusing its residue power on draining resources from the rest of the world for sustaining its own domestic prosperity and social peace as well as the central position in the world system (Arrighi 2005, p.32, quoting Guha 1992 p.231-2; Amin 2004, p.104-6). One of the strategies of accumulation by dispossession was taking advantage of its superiority in financial power (based on the structural advantages deriving from the unique status of the dollar) (2007, p.155, p.132).

The overaccumulation crisis and diminishing investments in production (de-

industrialization) entailed a tendency towards an increasing flow of money into the financial sector (financialisation), as capitalist agencies tended to keep a larger share of their earned profits in liquid form, looking for safer ways to make a profit other than production (Arrighi 1994, p.6). In theory, the tendency towards financialisation could bring about 'spatial shifts' in the epicentres of world accumulation as it facilitates capital flow from the existing centre to (semi) peripheries that can provide new outlets for productive investment (Walker 2010, p.63). David Harvey suggests that such a process of 'spatial fix' can possibly turn a global downturn caused by overaccumulation to an upturn centered on the new space (2005, pp.121-3). According to the theory, it follows that the phase of financial expansion in the center initiates a gradual displacement of one hegemon by another in the form of an investment drain (Arrighi 2009a, p.72; Glyn 2005, p.36). But the problem is that the process of spatial fix inevitably involves what Harvey called 'switching crises' in the existing centre, a crisis caused by devaluation pressures on 'the values already fixed in place (embedded in the land and production facilities) but not yet realized' (2005, pp.121-3; 2000, pp.428-9). To put it another way, reemployment of surplus capital in new spaces involves a spatial/geographical version of Schumpeter's 'creative destruction' -the violent clearing of past landscapes (Schumpeter 2008; Arrighi 2005, p.36).

Arrighi argues that America did not tamely submit to the pressure of the spatial fix, but attempted to block it by taking the financial flows away from emerging centres (2007, p.221-2, p.228). Further, it is argued that the US was even trying to end the cycle of spatial fixes by creating an American-led global empire or a world state based on the extraction of tribute (Karatzogianni and Robinson 2013, p.115). The first attempt was made in the late 1970s when the US-centered overaccumulation crisis culminated in capital flight and a serious crisis of confidence in the US dollar. In response to the crisis, the US monetary authority made a decisive policy turn from the highly expansionary monetary policies to highly restrictive policies accompanied by record-high interest rates, tax breaks and increased freedom of action for capitalist producers and speculators. As a result of the policy, the massive amount of surplus capital that had until then flowed primarily to low and middle income countries dramatically changed its direction towards the US, enabling the dollar to recoup its position as the world currency and offering the US an opportunity to enjoy a period of renewed profitability and vigour (Arrighi and Silver 1999; Aycock

2009, p.33). On the other hand, for low and middle income countries, the massive rerouting of capital flows towards the US meant a sudden “drought” of capital, a sharp contraction in availability of credit for investment at favourable conditions, and thus an escalation of interstate competition for a share of export markets (Arrighi and Zhang, 2007). While the winner in the competition (most notably East Asia) could manage to turn itself into a major creditor to the US by taking advantage of the escalating US trade deficit, the loser (most notably, Latin America and Sub-Saharan Africa) who did not manage to compete for a share of the US demand could not but experience chronic balance of payment crises in the position of having to compete directly with the US in world financial markets. Meanwhile, “US business and governmental agencies were able to take advantage of both outcomes for the South: they were able to mobilize the cheap commodities and credit that Southern “winners” eagerly supplied, as well as the assets that Southern “losers” willy-nilly had to alienate at bargain prices” (Arrighi and Zhang 2007, p.7).

The radical policy-turn of the 1980s and the following worldwide promotion of the neoliberal agenda (that later came to be known as the Washington Consensus) delivered a remarkable resurgence of wealth and power to the US with the economy on a seemingly permanent upward trajectory (Arrighi 2007, p.232-3). Such a ‘belle époque’, however, as did in all incumbent centres of the world system, was bound to be epidermal because ‘they tended to deepen rather than solve the underlying overaccumulation crisis’ (Arrighi 2005, p.88). Indeed, the influx of foreign capital actually fostered speculative financial-commercial booms driven by Wall Street and large multinationals, rather than re-industrialization (channelling funds into “demand-creating investment”) based on improved industrial competitiveness and profits. For example, what emerged as America’s new leading company (replacing the former: GM the pioneer of Fordism) through the successive debt-driven consumption booms was Wal-Mart whose profits mainly accrue from channelling cheap foreign imports rather than producing goods in the US (Lichtenstein 2005). Further, financialisation was accompanied by polarization and social dislocation that in turn “provoked movements of resistance and rebellion among subordinate groups and strata”, while the state’s capacity to cope with the new situation was undermined (Harvey 2005, p.182; Arrighi 2005a, p.48). In this sense, it can be said that the finance-led boom functioned as morphine, rather than a cure to the underlying

problem of the overaccumulation crisis, easing pains temporarily but ultimately taking a turn for the worse and requiring increasingly large doses. In other words, economic and political pressures upon the US were not decreasing but growing, which in turn pushed the state to draw a constant (not one-off) influx of new funds from elsewhere (Harvey 2005, p. 182; Arrighi 2005a, p.48).

The growing need to repeat once again ‘the original sin of simple robbery’ culminated in military adventurism: Washington’s adoption of the new imperial project represented by the invasion of Iraq aimed at the control over the global oil spigot (Harvey 2005, pp.201–2). The project of global military control was not different from the neo-liberal projects in terms that it was an attempt at compensating for economic deficiencies for maintaining the hegemonic position (2004, p.106; Khanna 2008). Unlike the neo-liberal projects, however, the neo-conservative project was moved forward without concealing the fact that America has ‘given up on hegemony through consent and resorts more and more to domination through coercion’ (Harvey 2005, p.201)¹¹. It straightforwardly signalled that America had become a ‘naked apparatus of coercion and domination’ (Arrighi 1994).

For the US government, the immediate problem of staging a war was not political or military resistance but the way in which it would be financed. While both taxes and interest rates could not be raised due to the deep recession in the wake of the 2000–01 crash and fallouts of 9/11, financing the war (along with other current account deficits) came to almost solely rely on borrowing from foreign central banks and government agencies. Indeed, after Bush took office, East Asian central banks began buying up enormous amounts of Treasury securities, thus funding nearly a third of the US current account deficit. This growing financial dependence on foreign governments meant that major creditor states, that is, the governments that had financed the growing deficit were given increasing political leverage over US policies, constraining US ability to pursue its national

¹¹ There is no difference between the promotion of neo-liberalism in the 1980s-90s and the promotion of neo-conservatives’ war projects in the 2000s in that both were a strategy aimed at reversing the relative decline in US wealth and power by using non-productive American dominance. The difference lies in that the former was at least presented to the world as a new global development project with the consent of ruling elites across the world secured, while the latter was driven plainly unilaterally or imperialistically.

interest in a unilateral way (Arrighi 2005, p.66)¹². This growing leverage was expected to pose a serious problem for Washington, given the fact that China had emerged as the leading creditor to the US, surpassing the subordinate allies such as Japan, South Korea and Taiwan. The Bush administration, reluctant to give China more political leverage over its own policies, reacted to the problem by exploiting the seigniorage privileges once again, that is, by depreciating the dollar with a view to wiping trillions off the value of the creditors' dollar assets. The Bush Administration might have thought that a falling dollar was not an American problem but rather "a very effective means of forcing friends and foes to finance the US war effort and US economic growth" (Arrighi 2005a, p.74).

Whether this tactic (staging a war without cost) would succeed or lead to the eventuality of a dollar rout depended on whether other creditor countries would continue to lend to the US despite the partial default on its debt through massive depreciation of the dollar. Arrighi and other world-system analysts anticipated that it would not be possible in the long run; US' frequent exploitation of seigniorage privileges would someday induce the global financial flow to reroute from the financing of US deficits to the emerging centres of production, China in particular, which may offer more profitable and stable outlets for surplus capital than in the US.

In the event of a new dollar rout comparable to that of the late 1970s, it is expected that the US will not be able to avoid a fundamental structural adjustment entailing "an unheard of degree of austerity the likes of which have not been seen since the Great Depression of the 1930s" (Arrighi 2005a, p.70). Such an adjustment will inevitably result in a further fall of the weight of the US market in the global economy, along with the demise of the dollar as the key international currency. Consequently, far from being the opening act of 'a new American Century', the neo-conservative project was actually a closing act of the 'long twentieth century', signalling the 'terminal crisis' of US hegemony (Arrighi 2005, p.80; Panitch 2010, p.81).

¹² It is also undeniable that the surplus-running countries became reliant on the US market for selling their commodities. It is seen, however, that a dependence on demand is different from a dependence on supply, because those dependent on external demand can always create the required demand internally whereas those dependent on external supplies (of both finance and cheap commodities) may not be able to create the required supply internally at the same or lower costs. Thus, this mutual dependence at first favoured the US but was becoming more and more in favour of the creditors (Harris 2012, p.164).

2.2. The rise of Chinese hegemony: Adam Smith in Beijing¹³

World-systems theorists hold that “in the *longue dure’e*, the declining hegemon’s autumn is another rising hegemon’s spring”. The period of hegemonic transitions is characterised not only by systemic chaos but also by “organisational revolutions in a newly emerging hegemonic bloc of business and governmental institutions and spatial shifts in the epicentres of world accumulation that brings about structural changes in the world-system” (Robinson 2010, p.7). Through this historical lens, China is put forward as a potential new hegemon because it is “the pioneer of a new model of economic organization”, possibly offering “the conditions for the resolution of the preceding overaccumulation crisis and the take-off of a new phase of material expansion” (Arrighi and Silver 2001, pp.73–77; Arrighi 2005a, p.16).

In distinguishing the Chinese development model from others, the concept of (Marxian) capitalism is distinguished from that of (Smithian) market economy (a form of exchange and cooperation among individuals acting in the social division of labour). It is argued that capitalism is established when two things take place. First, a market economy becomes capitalist when capitalist strata powered by unregulated markets take up the “commanding heights of society – the state”. Second, capitalism comes into the picture when the market economy, out of the state controls, is subsumed by the logic of profit maximization that constantly destabilizes the market economy itself. Consequently, a market economy itself is not a capitalist economy if the state remains strong enough to curb and constrain the market to serve the national/public interest (i.e. making the market “the invisible hand of

¹³ The term is quoted from Giovanni Arrighi’s book: *Adam Smith in Beijing: Lineages of the Twenty-First Century* (2007). Interpreting *The Wealth of Nations*, Arrighi in this book argues that what Adam Smith envisaged was not so much “capitalist development” that happened in Europe as “market-based, non-capitalist development” that occurred in the East. Smith, according to Arrighi, emphasized the role of the state in curbing markets in a way to make capitalists compete with one another, rather than the role of self-regulating market in which workers compete in favour of capitalists. Also, it is pointed out that Smith was an advocate of the Asian type of development based on small-scale enterprises and agricultural production, rather than endorsing the European model of development based on large-scale industry, foreign trade and dispossession of the peasantry. In this ‘new’ interpretation of *The Wealth of Nations*, Arrighi titles his book on Chinese development ‘Adam Smith in Beijing’. For more explanation in Arrighi’s own words see Harris (2012), pp.157-166.

the government”), resisting the capitalists’ attempts to use the market as a means of pursuing their own private interests (Harris, 2012, p.162). As Arrighi puts it, “the capitalist character of market-based development is not determined by the presence of capitalist institutions and dispositions but by the relation of state power to capital. Add as many capitalists as you like to a market economy, but unless the state has been subordinated to their class interest, the market economy remains non-capitalist.” (Arrighi 2007, pp 331–2). In this view, China’s accumulation regime, particularized by the strong party-state retaining the upper hand in the relations with the capitalist classes (represented by large multinationals), is seen as a new development model, that is, a desirable alternative to crisis-ridden capitalist development.

Arrighi claims that a form of non-capitalist market-based development in China first occurred between the 16th and 18th centuries, during which China experienced unprecedented prosperity and population growth, paralleled by a thriving domestic market. Compared to the Western countries during the period, what made the growth unique was that there was no corresponding development of the means of production. Mark Elvin suggests there was some socio-economic fetters to technological advancements in China at this time: “[w]ith cheapening labour but increasingly expensive resources and capital, with farming and transport technologies so good that no simple improvements could be made, rational strategy for peasant and merchant alike tended in the direction not so much of labour saving machinery as of economizing on resources and fixed capital” (Elvin, 1973, p.314. quoted by Arrighi 2007, p.330). Arrighi points out that these tendencies brought about the development of ‘labour-absorbing institutions and labour-intensive technologies’, that is, what Kaoru Sugihara called an ‘Industrious Revolution’ (Arrighi 2007 p.32-33). Both Arrighi and Sugihara interpret the Industrious Revolution as “a market-based development that had no inherent tendency to generate the capital- and energy-intensive development path opened up by Britain and carried to its ultimate destination by the United States.” Unlike the Western ‘industrial’ path, the East Asian ‘industrious’ path is characterised by a disposition to ‘mobilize human rather than non-human resources.’ (Ibid, p.34).

The tradition of China’s industrious revolution, after having been suspended during the

colonial period, was revitalized and transformed by China's socialist revolutionary tradition, which, unlike Stalin's USSR, pursued modernization not just through the internationalization of the Western industrial revolution, but through the revival of the industrious path with emphasis on rural infrastructure, education and land reform (Arrighi 2007, pp.353–54). The distinct Chinese form of Marxism-Leninism (called Maoism) developed during the Red Army's Long March in the 1930s was distinguished from the Russian tradition in terms of putting the masses and the peasantry before the vanguard party and urban proletariat as the principle foundation of the socialist revolution. Arrighi claims that it was the Maoist tradition, coupled with a pragmatic approach of the CCP to the crucial problem of "how to govern and develop a country with a rural population larger than the entire population of Africa, or Latin America, or Europe", that made the CCP leadership continue to pursue a form of accumulation without dispossession instead of the forms of accumulation by dispossession (Arrighi 2007, pp. 361-4, pp.370-1, p.375; Amin 2005, p.268, pp.274-75). Indeed, according to Arrighi's observation, Chinese rapid growth in the post-Mao era was not based on the so-called 'advantages of backwardness', that is, large reserves of low-productivity agricultural labour available to higher-productivity industries; rather it was based on highly effective agricultural reforms (the land-tenure system established in the 1980s) which barred individuals from selling land, and thus enabled the peasant not to lose control of their means of subsistence while being involved in other non-agricultural rural activities such as working in Township and Village Enterprises (TVEs) (Andreas 2008). In addition to the rural-oriented policies, Arrighi points out that the rapid growth in China was driven by development policies reflecting the Maoist tradition "aimed at expanding and upgrading the social division of labour; the huge expansion of education; the subordination of foreign capitalist interests to the national interest; and the active encouragement of inter-capitalist competition" (2007, p.361). Arrighi sees those various socio-economic policies based on the socialist tradition as making it difficult to interpret Chinese development as associated with adoption of doctrinaire neoliberal principles as David Harvey did with the expression 'Neoliberalism with Chinese characteristics'¹⁴.

Then what was the source of China's competitiveness in attracting capital and promoting

¹⁴ See Harvey (2003, pp.120-151).

economic growth? Although the distinct Chinese development path with a strong bias towards the utilization of human resources and community-based small-scale production left little room for big innovations through investment in fixed capital, it paved the way for the development of labour-intensive technologies including managerial and interpersonal skills that became Chinese producers' chief competitive advantage (Sugihara 2003, p.87). Discussing the competitive advantage of China, Arrighi keeps emphasising the high productivity of labour that was gained without actually investing in expensive plant equipment. "The basis of Chinese success was not simply cheap labour, but the quality of labour; China's advantage was due to 'low-price, high-quality labour'" (Arrighi 2007, p.365). Arrighi cites, as an example, the Wanfeng automotive factory near Shanghai, where there "is not a single robot in sight". "As in many other Chinese factories", writes Arrighi, "the assembly lines are occupied by scores of young men, newly arrived from China's expanding technical schools, working with little more than large electric drills, wrenches and rubber mallets" (Ibid., pp.365-366). In this factory, "engine and body panels that would, in a Western, Korean or Japanese factory, move from station to station on automatic conveyors are hauled by hand and hand truck. This is why Wanfeng can sell its handmade luxury Jeep Tributes in the Middle East for \$8,000 to \$10,000. The company isn't spending money on multi-million dollar machines to build cars; instead, it's using highly capable workers [whose] yearly pay ... is less than the monthly pay of new hires in Detroit." (Ibid., p.366). Further, Chinese firms were able to substitute inexpensive educated labour, not just for expensive machinery, but also for expensive managers. As Fishman describes, "despite the enormous numbers of workers in Chinese factories, the ranks of managers who supervise them are remarkably thin by Western standards... an indication of how incredibly well self-managed [workers] are." (Fishman 2004). Consequently, China's distinctive development path based on its historical heritage was not only egalitarian but also more efficient and competitive than the Western capitalist development model.

Arrighi also suggests that one of the advantages of China's 'non-capitalist market economy' is its ability to insulate itself from the negative impacts of crisis-ridden global financial markets (and thus the influence of the US structural financial-monetary power). The ability derives from the state's strict hold on its own financial markets through capital controls,

exchange rate controls and interest rate controls.¹⁵

Since the early years of market-oriented reform and the opening up policy of 1979, the control over capital inflows has largely been removed, but capital outflows are still under strict government controls. With stricter controls on foreign exchange transaction, domestic exporters are allowed to retain only a very small portion of foreign exchange earnings while the remainder should be handed over to the central bank which holds it in the form of official foreign exchange reserves (Zheng et al 2007, p.4). As the path of outbound capital flows is more or less blocked, there is little possibility of financial crises associated with the volatility of capital flows. Capital controls like this, however, tend to worsen problems related to inflation. In general, central banks can react to the problem by means of sterilization policy: raising the reserve ratio for banks or/and selling central bank bills to them. But such a policy inevitably undermines the profitability of domestic banks' operations; it is a de-facto tax on banks since the interest rate banks receive on both reserves and central bank bills tends to be below the rate that banks could receive if they lent the money to private borrowers (Lardy 2008, p.3). China solved this problem by means of strict interest rate controls, maintaining a fixed gap between the lending and deposit rates (Vermeiren 2013, p. 19-20). Arrighi interprets such a policy of financial repression as an essential policy not only for keeping domestic economy autonomous from crisis-ridden global financial markets, but for subordinating the capitalist (financiers) private interest to the national interest.

One of the results of the effective sterilization policy was the accumulation of a huge quantity of dollar reserves, totalling US\$1.022 trillion by the end of 2007. Arrighi points out that this new creditor position surpassing Japan and oil exporters certainly boosted China's potential power of influence in the international arena (2005a, p.70). Indeed, using the direct control over the massive foreign reserves and the high degree of discretionary

¹⁵ From the perspectives of the 'left' including World System theorists and post-Keynesians, it was these kinds of state control that are in clear contrast to the prescriptions of Washington, that, by countering the negative effects of liberalization, spared China disastrous political economic crises which had frequently occurred in the global South such as Sub-Saharan Africa, Latin America, and the former Soviet Union. For further discussion of this issue, see Arrighi (2007); Stiglitz (2002) and Chang (2002).

influence over Chinese financial institutions (e.g. those dealing with sovereign wealth funds), the state eagerly made a political investment through aid, loans, and debt forgiveness to developing and low-income countries across the world. Such grants of generous aids and loans, allowing developing countries to forgo strings-attached-loans from the IMF and the World Bank, not only improved China's political influence, but significantly weakened the power of the Washington consensus pursuing 'vulture capitalism' (e.g. "shock therapies" aimed at transferring wealth from crisis-struck low-income countries to the financial centre) (Arrighi and Zhang 2007, pp.2-3; Arrighi and Silver 2001, p.260; Trichur and Sherman 2009, p.258). For example, Beijing offered Angola a loan of US\$2 billion in 2004, allowing the government to turn down a similarly sized loan offered by the IMF that included conditionalities on employing strict neoliberal structural adjustment policies. In 2006, China also out-competed the World Bank in negotiations over funding the Chad-Cameroon pipeline project, by offering Chad more generous terms for investment funds. These were just one part of many similar cases in which China made itself an alternative source of funds for the global South; as of 2006, Beijing had offered preferential loans to twenty-six African countries including Ghana and Congo which were once the clients of the World Bank and IMF (Arrighi and Zhang 2007, p.31).

Also, China has consistently pursued the building up of a regional monetary financial system aimed at reducing the dependence of East Asia on the US-led monetary financial regime. In cooperation with the ASEAN, Japan and South Korea, for example, China attempted to create an Asian Currency Unit that could be used as an international currency in the region. The state has also been an active promoter of the Asian Bond Markets Initiative backed by the post-2003 ASEAN plus-Three, which aims to re-direct Asian surpluses toward Asian development projects. Lastly, China also supported the post-2000 Chiang Mai Initiative and the creation of a multilateral fund in 2008 with the object of providing short-term financial assistance to East Asian states undergoing balance of payments problems.

The Chinese state's active mobilization of foreign reserves, along with its efforts to build up a regional scheme, would make room for other states (in particular Asian and

developing states) to reconsider their past international investment patterns based on the imperatives to finance the US' consumption binge. Because the major creditor position of China would continue to rise, Arrighi hopes that this trend, smoothly or abruptly, will lead to a new mechanism of recycling surplus savings of the emerging market countries within the periphery, fading out the US influence as a global investment bank. Some critical IPE scholars argue that the effect of such an effort would be limited as it cannot undermine the status of the dollar as the leading international currency. Refuting such arguments, Arrighi emphasizes that "whether Asian and other Southern countries continue to use US dollars is not the most important issue. As one can see from the example of Venezuela's use of windfall proceeds from high oil prices to assume the role of new "lender of last resort" for Latin American countries, thereby reducing Washington's historically enormous influence over economic policy in the region, what really matters for the future of North-South relations is whether Southern countries will continue to put the surpluses of their balances of payments at the disposal of US-controlled agencies, to be turned into instruments of Northern domination, or will instead use them as instruments of Southern emancipation" (Arrighi and Zhang 2007, p.32). In this sense, "China is assembling the resources to eclipse the US in many essential areas of international affairs and constructing an environment that will make US hegemonic action more difficult." (Ramo 2004, p.5).

In sum, while the US is undermining its central position in the world political economy by relying increasingly on the abuse of residual hegemonic power (financial, monetary and military power), China, gaining a foothold from the declining US, is rising as a new hegemon providing the whole system with an alternative leadership. Joshua Cooper Ramo describes the emerging Chinese leadership as the replacement of the Washington Consensus by a Beijing Consensus, that is, the China-led development path for other states "not simply to develop but also to fit into the international order in a way that allows them to be truly independent, to protect their way of life and political choices" (2004, pp. 3-5). In line with such arguments, Arrighi sees that the Chinese ascent and the provision of its 'development project' are actually contributing to a collective empowerment of the South, that "can lead to the formation of a new and more effective Bandung—i.e., a new version of the Third World alliance of the 1950s and 1960s better suited than the old at countering the economic and political subordination of Southern to Northern states in an age of

unprecedented global economic integration” (Arrighi and Zhang 2007, p.29).

2.3. Summary

World System theories agree with critical IPE perspectives that the immediate cause of the global imbalance was the US’ exploitation of its dollar privileges. But World System theories take it one step further by arguing that the US’ reliance on monetary-financial power was a reflection of declining economic power in production, and thus declining US hegemony. They explain the relative decline of US economic power by means of a Marxian concept of over-accumulation crisis; the brisk growth in the post-war boom era resulted in the accumulation of capital to the extent that no more productive investment could be profitable. By the mid-1960s, the crisis of accumulation began putting growing pressure on the economy that had so far been the most dynamic centre of global accumulation, and it was those pressures that precipitated the US to rely ever more on its residual power in the financial system and even military strength for sustaining its own domestic prosperity as well as central position in the world system. It follows that the growing current account deficits of the US were an outcome of such a desperate struggle to stave off an imminent crisis.

Meanwhile, World System theorist Giovanni Arrighi and his collaborators argue that the decline of American hegemony was accompanied by the rise of Chinese hegemony, providing a viable alternative to the existing US-led capitalist world system. Analysing the distinct role of the Chinese state in regulating the market to serve the public interests rather than private capitalist interests, they insist the growth of China should be seen not as one of capitalist developments but as an emergence of a new development model that fits a Smithian concept of a non-capitalist ‘market economy’. They argue, in the long run, China’s rise, and the promotion of the Beijing Consensus to replace the Washington Consensus, is expected to provide system-level solutions to the system-level problems left behind by US hegemony. Consequently, the global imbalance was one of the by-products or symptoms of this historical process of hegemonic transition.

3. Conclusion

This chapter has reviewed the perspectives of critical IPE theories and World System analysis on the global imbalance. Unlike mainstream economists' views focusing on policies and markets of national economies, both perspectives attempt to derive the global imbalance from the historically developed international system. Thus, it can be said that they provide a wider context on the global imbalance than mainstream economics does. Despite such a merit, however, their explanatory power, like the mainstream economists' views, is also limited to some specific aspects of the phenomenon. It seems the problem lies in their narrow concept of the 'system'. For critical IPE theories, the 'system' means nothing but an institutional arrangement governing inter-state monetary relations, rather than the capitalist mode of production itself. In other words, their critical enquires into the historical evolution of the existing system do not expand to the capitalist world system itself; instead, in the same way mainstream views have often done, they simply assume the capitalist system and its social forms such as the state and the market to be self-evident. In the case of World System theories, the term 'capitalist world system' is used as synonymous with a specific pattern of growth or a globalised (hegemonic) development model determined by certain relations between the state and the market, rather than a specific social relations of production. From the Open Marxist perspective, they can be criticized for uncritically accepting the reified notion of the state and the market; like mainstream economists (and some traditional Marxists) they see the state and the market not as separate forms of capitalist social relations of production but as independent entities externally influencing each other. Based on the dichotomy between the state and the market, they also see international relations not as a form of the global class relations but as inter-state economic relations in which one state, by using 'its own economy', can exploit another.

These narrow concepts of the 'system' make them unable to explain some important aspects of the global imbalance; critical IPE tends to overlook issues related to relative industrial competitiveness (e.g. how China was able to enlarge the global market share while the US' was shrinking), whilst World System theories cannot explain the fact that despite their different forms of development the US and China, as a moment of the same global circuit of capital, are dependent upon each other in terms of their own stability and prosperity.

This thesis argues that a comprehensive understanding of the global imbalance is only possible when it is based on an understanding of the historically specific ‘capitalist social relations of production’ itself, because particular inter-state relations or state-market relations are mere expressions or the mode of existence of the underlying social relations of production. For this reason, the following chapter explores Marx’s theory of capitalist society as a theoretical foundation for a further analysis of the Sino-American global imbalance.

Chapter 4 Marx's theory of accumulation and crisis

"We turn to Marx ... not because he is infallible, but because he is inescapable."

(Heilbroner 1980, p.15).

This thesis argues that an analysis of the Sino-American global imbalance should be based on an understanding of the crisis-ridden process of capital accumulation. This chapter explores Marx's theory of capitalist social relations to establish the theoretical background for the analyses of the Sino-American imbalance. For this end, the exploration of the basic Marxist theory of accumulation places greater weight on the theory of crisis and the nature of the capitalist state within the context of global economic relations.

1. Value, money, and capital

All societies are constituted by human labour producing their own material conditions of existence. In different times the way in which human labour power is organized during the process of production has been radically different. Marx's critique explores the form of social production historically specific to capitalist society, which sets the fundamental context of the various components of our social world. One of the historically defining features of the capitalist mode of production is that most useful products are produced as commodities. In capitalist society, individual commodity producers who are separated and independent from each other produce useful things not for their own use but for the sole purpose of exchange. This means that it is the process of exchange on the market, rather than conscious decisions of social members, that establishes the social connection between independent producers. In other words, the private labour of individuals is validated as *social* labour only after the useful things produced are validated as *socially* useful objects via the act of exchange in the market (Reuten 1988, p.126).

Commodities as use values are qualitatively different from each other, reflecting their diverse concrete and material properties. But commodities in the process of exchange on the market acquire an additional abstract property of having been socially validated as *values*. Commodities in exchange thus double into use-value and value, and as values they are qualitatively homogeneous and distinguished from each other only quantitatively. In a

parallel fashion, one particular form of labour is qualitatively different from another in its concrete character. But in terms that both acts of labouring have acquired a social validity via exchange of products, they share the common abstract character of being value-producing labour. Marx called labour in this consideration *abstract labour* that is conceptually distinct from *concrete labour*. Just like commodities as values, all kinds of commodity-producing labour as abstract labour are counted equal in quality and different only in terms of quantity. For Marx, the substance of value is not just human labour but this abstract social labour, and thus the magnitude of a commodity's value is determined not by the labour-time actually spent by individual producers but by the labour-time *socially necessary* for the production of the commodity.¹⁶

Value is a purely social concept. It is not something inherent to a useful thing but a specific social relationship that is constituted in the process of exchange. For this 'spectral' value to become visible, tangible, and measurable, there must be something external to the world of commodities that can manifest the abstract social dimension of commodities (i.e. the common reference to abstract labour) in its specific material form. This external thing, assuming the role of an independent form of value, or equivalently, a representation of abstract labour, is *money* (Arthur 2006, pp. 16-18, Heinrich, 2012, p.84).¹⁷ As such, money is not a mere expedient but an essential to generalized commodity production; it is only in terms of money that commodities can be comprehensively related to one another as values¹⁸. To recognize that money is an independent manifestation of value is to recognize that in capitalism money is not only an intermediary serving commodity exchanges but it is

¹⁶ "Socially necessary labour-time is the labour-time required to produce any use-value under the conditions of production normal for a given society and with tire average degree of skill and intensity of labour prevalent in that society" (Marx 1976, p.129). It follows that, thus, if the productivity of labour for producing a commodity increases, then the labour-time socially necessary for the production of the commodity diminishes and the magnitude of its value declines.

¹⁷ This insight is essential to the open Marxist argument that value appears in the form of money, and that money is therefore the form of value. See Arthur (2006), Heinrich (2012), and Bonefeld (2010).

¹⁸ By making value visible, money also functions as a socially objective measure of value. The magnitude of value is determined by the amount of socially necessary labour time or abstract labour time. But units of time cannot be a measure of value because the only form of labour that can be measured with a clock is always the concrete individual labour expended *before* the act of exchange. It is money that actually expresses units of socially necessary labour time and thus making commodities quantitatively comparable (in price forms).

an end in itself. As a *thing of value*, or, to put it another way, as a *material form of abstract wealth*, money is something to be achieved, retained, and multiplied, rather than just to be used for exchange (Heinrich 2012, p.68).

In mainstream social theories, commodity production and exchange is conceived as a complicated barter economy served by money as a means for the circulation of commodities. In these theories there is a tendency to comprehend the basic organization of the market economy in terms of C-M-C circuits: every commodity producer sells his commodity (C), and uses the money (M) obtained to buy a different commodity (C). The aim of this process is the general satisfaction of needs, and money is used as a convenient tool for human ends. This perception fails to see the historically defining feature of our social world. Capitalism is not merely a barter system in which money is devised for convenience; it is itself a “historically unprecedented monetary system” (Bellofiore 2005). In a capitalist society, indeed, the use of money is not a matter of option for convenience; individuals are *compelled* to acquire money in order to remain a part of the society. As Marx notes, “each individual ... carries his social power, as well as his connection with society, in his pocket.” (Marx 1993, pp. 156-157).

In this consideration, it should be seen that the central organizing principle of capitalist society is production *for money*. In this society money is *advanced* (rather than just *spent*) in production with a declared intention of achieving more money (represented by the M-C-M' circuit). Marx called the sum of value in this process of valorisation (M-C-M') *capital*, and the difference between M' and M *surplus value* (Heinrich 2012, p.87). Consequently, the ultimate goal of production in capitalist society is surplus value; the satisfaction of human needs only occurs as a by-product of or a means for the valorisation process (Marx 1976, pp.255-6). It follows that capitalist society is based on a perverse ontological inversion in which human ends are subject to the inhuman end: 'money must beget money'.

2. Capitalist class relations of production

Every society in history has been based on the generation of *social surplus*, that is, social wealth beyond what its direct producers consume. Furthermore, the history of production of social surplus has been that of exploitative class relations with different forms. The

exploitative relations were evident in pre-capitalist societies (e.g. societies based on slavery, serfdom, or tribute-extraction) where the products of surplus labour of a subordinate class (labour in excess of the necessary labour required for their own subsistence) was directly handed over to a ruling class. In capitalist society where the surplus takes the form of *surplus value*, however, the exploitative character of class relations is not evident on the surface level of appearances.

Looking into the valorisation process represented by the $M-C(lp/mp)-P-C'-M'$ circuit (lp : labour power, mp : means of production, P : production process, C' : produced commodity outputs), one can see that the units of production in capitalism are capitalist firms which purchase labour power as a commodity input. As wage contracts, like others, are free agreements for mutual benefits, and the seller of commodity labour power, according to the terms of contract, is paid for the whole working day, there seems to be no exploitation of labour at all. Mainstream economics explains, thus, the difference between M' and M derives from a set of free individual choices of firms and consumers on the market. This view can explain how the total surplus value produced in the society is distributed among the firms, but it cannot explain the source of surplus value itself.

In order to understand it, wage labour should be seen in the context of the valorisation process, $M-C(lp/mp)-P-C'-M'$, as a totality, each phase of which defines a class relation. The circuit starts with a relationship between one class that owns money, and another that does not, which brings about the relationship between a purchaser of labour power (along with other means of production), and a seller of its labour power as a commodity. The purchaser of labour power controls the seller's living labour in the production process, and then appropriates the monetary returns after the sale of outputs which would generally exceed its own consumption needs. Finally, the circuit restarts with one class which owns even more money, and the other class that must once again sell the only commodity it has, labour power, to maintain itself at the given standard of living.

The valorisation process is thus the process in which the class relations are reproduced. The core of the process lies in the difference between a sum of value created by the exercise of labour and the amount of value initially invested by the capitalist. In terms of

labour time, surplus-value can be grasped as a sum of value produced during what Marx calls *surplus labour time*, which constitutes the working day on top of *necessary labour time* for reproducing the existing values invested. This wage labour/capital relation is thus a fundamentally exploitative relation in which unpaid labour of wage labourers is appropriated by the owners of capital. Expressed another way, the labour of one class is appropriated without the equivalent by another class, and as such the free and equal exchange relations between the traders of labour power amounts to a relationship between the buyers of labour power and the producers of surplus value.¹⁹

The fact that the process of surplus-value production is a process of exploitation means that it is also a process of class struggle over the appropriation of additional atoms of unpaid labour time. The capitalists may well struggle to extract as much surplus value as possible by lengthening surplus labour time in either absolute or relative terms, while the workers may well seek higher wages and resist the reduction of their life-time to not only to labour time but, rather, to surplus labour time. In the early stages of capitalist development, the capitalist tended to focus on increasing surplus labour time in *absolute* terms by extending the working day, intensifying labour, or employing more workers, on the basis of existing methods of production. However, because of the limit set by the competition for labour-power, the physical limits of workers and the social barrier of organized workers' resistance, the capitalists in mature capitalist societies have come to focus more on strategies of increasing *relative* surplus labour time, i.e. reducing the necessary labour time within a given length of the working-day. This form of exploitation, which in the parlance of economics might be called a strategy of appropriating productivity gains, has involved introducing (or replacing existing workers with) new labour-saving machinery and technologies, as well as improved labour management skills that enable workers to produce with greater time-efficiency.²⁰

¹⁹ Unlike in pre-capitalist societies, capitalist exploitative relations are not constituted by direct coercion. Instead of direct compulsion, in capitalist society the principle of private property imposes *social* compulsion on the working class. It denies the majority of people the access to means of production and subsistence unless they agree to sell their labour power to those with investment funds. It follows that individual workers are free to choose their occupation and employer, but they are not free to be unemployed.

²⁰ This form of exploitation, what Marx calls the production of relative surplus value, makes it appear that the source of surplus value is the capital itself in the form of new machines. This

3. Tendency towards overaccumulation

The practice of reducing necessary labour time by means of greater labour productivity is not a purely subjective matter, but is also driven by the objective force of world market price movement (the so-called ‘law of value’). As discussed, the value of a commodity is determined by the labour time *socially* necessary for producing it (the average social productivity in the sector), not by the necessary labour time spent by *individual* producers (individual productivity). Thus, any capital that is less productive than the average of the sector it operates in, i.e. those have spent more labour time than socially necessary, may well not be able to realize all the value embodied in commodities in the form of profit. Expressed another way, as the market price of the commodity tends to be determined by the *average* unit labour costs, those who have failed to reduce their own unit labour costs below the average level will have to run at a very low rate of profit or even at a loss, with potentially ruinous consequences. Of course, in a sector where demand exceeds supply, the market price of the specific kind of commodity could remain high enough to spare even the least efficient capitals such a ‘realisation problem’. But such a case is rarely possible or temporary at best since the surplus profit of the more efficient capitalists due to the high market price will induce them to expand production to the utmost, leading to a rapid drop in prices.

In general, for the less productive capitalists, the prevailing market price means the reality that they cannot but see either shrinking market share with growing stocks (in case their selling price is not adjusted) or falling profit rates and devaluation of capital (in case the selling price is cut to the level of the market price). In either case, they will have a lower amount of profit that can be reinvested into modernizing production facilities and thus increasing labour productivity. If a capital is continuously unable to keep up in the race to improve labour productivity, then at some point the market price might even fall to far below their costs of production, making the existing scale of production sustainable only with the help of increased access to credit. Credit-financing entails a mortgage on the

illusion derives from the fact that introduction of new machines tends to lead to an increased quantity of final products. But it is self-evident that that the quantity of *value* they transfer to the output cannot be bigger than the cost of them as inputs (equal exchanges); value does not grow magically in machines.

future extraction of surplus value and there is thus the risk that this mortgage cannot be sustained, leading to default. Consequently, the law of value rewards those who produce above the average rate of productivity and punishes those who fall below. There is thus a dynamic that drives *every* capitalist to develop productive capacity without limit in order to sustain themselves as functioning capital.

The general increase in labour productivity (general pursuit of relative surplus value production that reduces the *socially* necessary labour time for the production of commodities), however, entails a contradiction for capital. It increases the costs of exploiting labour (i.e. greater necessary investments in means of production), depresses the value of individual commodities, and expands the total amount of commodities that need to be sold for profit. It follows that capitalist accumulation itself constitutes a vicious circle. In the words of Simon Clarke, “the more successful are capitalists in overcoming the barriers to the increased production of surplus value, the more certain is it that they will confront barriers to its realisation through the sale of the commodities produced” (1988, p.101). While each capitalist, under ever-intensifying competitive pressure, tries to avoid ruin by maximizing the productive power of labour, profit becomes more difficult to come by as the cost of exploiting labour increases and a greater amount of commodities needs to be sold.

The general trajectory through which overproduction develops can be explained through a hypothetical situation of a branch of industry producing similar goods. Assume a capitalist in a particular sector of production has managed to make a breakthrough in productivity. Armed with the lowest unit labour costs, they would be able to gain surplus profits. With the help of these higher profit rates than the prevailing rate, they can further expand surplus value production, placing an increasing mass of commodities onto the market. Here, if the demand for the specific kind of commodity is concomitantly growing, then the capitalist will be able to continue to sell a growing amount of commodities at prevailing market prices, preserving the existing level of surplus profits. But even with a limited growth of effective demand for the product, the capitalist will not curtail productive capacity, rather they will increase investment as much as possible because the relatively low costs of production allow the driving out of competitors and expansion of market share by cutting

their selling price to just below the existing level. Although the reduced price would repress profit rates, the growing quantity of profit would enable him to still enjoy a profit above the average level. Consequently, the immediate way in which the most efficient capitalist responds to the emergence of overproduction is expanding production even further, capitalizing on comparative advantages in the sector.

Of course, such a response would increase the pressure on the less efficient producers who are unable to reduce unit labour costs in their factories by at least as much market prices fall. In spite of shrinking market shares and growing unsold stocks, however, they are unlikely to cut their selling prices or immediately liquidate their capital and move to other sectors, because the former means they abandon profitability on paper (and their creditworthiness) while the second option means a direct loss of the sunk costs: the capital immobilized in the form of unsold commodities, fixed capital and work in process. Rather than simply accepting the pressure of devaluation and destruction of their capital, they are much more likely to try to overcome the barriers of the market. On the one hand, they will desperately attempt to dispose of their growing stocks by means of aggressive marketing and opening up new markets. More importantly, on the other hand, they will expand borrowing not only for maintaining the existing scale of production but for further investment in up-to-date methods of production, while struggling to reduce the costs of production by cutting wages, intensifying work and lengthening the working day, and by reducing the cost of exploiting labour. Ultimately, identical to the case of more advanced capitalists, the less advanced producers are also likely to refuse to tamely curtail their productive capacities in the face of limited market and growing competitive pressures. Rather, capitalists in whatever position are likely to respond to the pressure of the market in ways that would further exacerbate overproduction and intensify competition.

Since capitalists are not mere passive price-takers as assumed by neo-classical economists, accumulation does not proceed in the form of the smooth adjustment to the market as depicted in economics textbook. If, on the one hand, labour productivity improves at a slow pace with less opportunity for surplus profits, then the downward pressure on backward producers' profit will also be relatively small. In that case, the process of accumulation will take the form of slow and chronic overproduction (stagnation). On the

other hand, if a great breakthrough in productivity is found, then the opportunity for substantial surplus profit will lead to a rapid accumulation of capital. The scale of overproduction will be determined by the scale of necessary investment and the period of rapid accumulation will be affected by the time at which the new methods of production will become generalized. Once a huge amount of investment leads to placing of the concomitant huge mass of commodities onto the market, the pace of falling prices may exceed the pace of falling costs of production for some capitalists, rapidly eliminating the profits on which their ability to service debt depends. If the least profitable capitalists respond to the pressure by unloading their stocks, then the price will collapse leading to a generalized crisis with successive bankruptcies.

To better describe the process of a generalized crisis of overaccumulation, the process should be seen in the context of uneven development of productive forces between the various branches of production. The tendency to overproduction of commodities and overaccumulation of capital exists in all sectors of industry, but the development of productivity growth does not proceed evenly across all sectors of industry due to the different conditions of production (the natural, technical or social limits each confronts) (Clarke 1988, p.68; Clarke 1994; Weeks 1981). Thus in a capitalist economy some sectors will be less productive than others and some will be more dynamic than others. All sectors are linked together through the market interactions as suppliers and buyers. If a revolutionary method of production is introduced in a large sector of the economy (such as the car industry requiring many suppliers in markets ranging from labour power to raw materials), then an investment boom ignited in the sector would lead to a period of rapid accumulation across the economy. This point is entirely disregarded by the traditional theory of under-consumption, which argues that the tendency to overproduction would directly entail the emergence of general overproduction and under-consumption. As a growth engine, one large sector's boom can have a significant ramification on even the least productive and stagnating sectors as the economy as a whole expands. This development does not arrest the tendency towards capitalist overaccumulation. Rather, it is fed by it. This comes to the fore most dramatically once the main engine of accumulation stops running, which in its impact spreads to the whole economy through the same chains of market interactions that have so far fed the boom, leading to a crisis of general

overaccumulation.

4. The role of credit and crisis

The expansion of credit plays a critical role in shaping and boosting the pattern of overaccumulation and uneven development. As overaccumulation difficulties emerge, the rate of industrial investment begins to slow down, simultaneously forming a growing pool of money capital. This financial capital throughout the world market is eager to flow into newly-found sectors where high future rates of growth are anticipated. While the price of capital assets (stocks, bonds, etc.) soars due to the influx of funds, the assets are now traded in the hope of speculative gains, rather than expectations of future earnings (Marx 1981, pp.615-6, p.742). This trend is reinforced when previously gained capital assets are used as collateral for borrowings to finance further purchases of assets, stimulating even steeper inflation in the market.

During the boom, it appears as if the expansion of credit can resolve problems of liquidity to sustain accumulation. While demand for cash remains low (leading to low interest rates), rising asset prices makes even the least profitable capitals appear increasingly wealthy on paper, thus allowing them to extend credit further to maintain the existing scale of production. However, credit by nature “can only suspend the contradiction inherent in the capitalist mode of production, it cannot resolve it” (Clarke 1990, p.17). Indeed, by helping capitals to overcome the barrier of the market the ready availability of credit plays an important role in driving overaccumulation of capital to an extreme level across sectors and regions. Credit, as a powerful lubricant for the system, accelerates all the processes of accumulation, making it both more dynamic and long-lasting, and more destructive and crisis-prone. As Marx put it, “banking and credit thus become the most potent means of driving capitalist production beyond its own limits- and one of the most effective vehicles of crises and swindle” (Marx 1981, p.739).

Financial instability is “the structural instability of capitalist social relations, the instability of the basic relation between capital and labour on which the society is based” (Holloway 1992, p.159). Crisis is latent in credit-sustained accumulation. It can come to the fore in the form of open crisis by any accidental prick to the bubble on which the whole circuit of

capital relies. “Credit-sustained accumulation is no more than ‘fictitious’ accumulation or ‘fictitious’ integration of labour into the capital relation, because the monetary representation of value becomes more and more detached from the value actually produced” (Holloway 2000, p.176). If the expansion of surplus value cannot keep up with the expansion of credit, a portion of total surplus value for interest and dividend will increasingly encroach on another portion for functioning capital’s profits, thus requiring ever greater injection of credit for productive capitals to remain operational as well as solvent. With the risk of default looming, demand for means of payment will suddenly skyrocket, boosting interest rates and worsening the problem of bad debts, leading to a chain of bankruptcy, defaults, and mass lay-offs that will spread throughout the system in a destructive spiral. The more accumulation has been sustained by the expansion of credit, the more devastating the social fallouts of a collapse will be.

Ironically, a destructive crisis plays an essential role in creating the conditions for the next boom. As workers are made redundant and unprofitable producers are liquidated, the capitalists that have managed to survive now can buy up means of production, unsold commodities, and labour power much more cheaply than before. By using the means for restoring profitability, the remaining capitalists would start investment again and a renewed accumulation would get under way (Harvey 2007, p.183). Crisis, in this sense, is a necessary element of the capitalist mode of production. Capitalist accumulation and the crisis do not belong to different worlds. They are two sides of the same coin. The drive to accumulate makes capitalism productive and destructive at the same time. Thus, as Marx put it, “the real barrier of capitalist production is capital itself. It is the fact that capital and its self-expansion appear as the starting and closing point, as the motive and aim of production; that production is merely production for capital... Thus, while the capitalist mode of production is one of the historical means by which the material forces of production are developed and the world market required for them created, it is at the same time in continual conflict with this historical task and the conditions of social production corresponding to it” (Marx 1981, p.293).

The above explanation of the pattern of overaccumulation and crisis may not be directly applicable to the various forms of crises as they unfolded in the real world. Nevertheless, it

is undeniable that Marx's theory of capital accumulation contains the seeds for conceptualizing complex phenomena in a coherent manner. At the risk of repetition, the important insights of Marx's critique of political economy can be summarized with important qualifications as follows.

Marx defined the money which directly connects the capitalist with the workers as 'variable capital', while the money that buys the means of production as 'constant capital' (Marx 1976, pp.131-137). Variable capital and constant capital establish a production relation between the capitalist and the workers. By 'variable' he means that part of capital which may produce a new, surplus value in the course of the labour process. On the other hand, the 'constant capital' is 'constant' because it does not by itself add new value to output, or increase in value in the production process, but its value is only transferred to the new product by living labour. Marx found that the ratio of constant capital to variable capital, that is, the organic composition of capital, tends to rise in the course of capital accumulation due to competition that rewards capitalists capable of intensifying and expanding exploitation of labour and thereby depressing the exchange value of commodities to the utmost. By definition, the rising organic composition of capital means more and more money needs to be invested in the means of production in order to establish a production relation with the workers. What is here changed is not that the rate of exploitation declines, but that exploitation becomes more costly for capital; in order to exploit a worker profitably, capital is required to invest an ever-increasing amount in machinery and raw materials which tend to increase the cost price of production (Bonfeld 2000, p.54; Holloway 2007, p.24). Increased labour productivity also results in a growing mass of surplus value in the form of a large volume of commodities each containing less value per unit of output. There is thus a risk that the rate of return, that is the rate of profit, on committed investment falls. Also, this fall in the rate of profit might not be compensated by a greater mass of profit. If the quantity of money in circulation is not increased in accordance with the increasing volume of commodities, the average mass of profit will inevitably fall. As a consequence, this relentless process of making money out of money becomes difficult to achieve and appears crisis-ridden. While credit expansion can postpone the inherent necessity of crisis for a while, it is only through crisis, by the destruction of productive capital and commodity capital, that profitability can be restored

to the level appropriate for renewed accumulation (Harvey 2007, p.183). In this sense, the violent destruction of capital is not caused by some extraneous events. Rather, it belongs to the condition of capitalist accumulation. Marx thus argued that capital is a “living contradiction” (Marx 1973, p.749, cited by Bonefeld 2000, p.59).

5. Limits of state monetary policy

As outlined above, in the cycle of overaccumulation and crisis the boom and bubble accompany an overextension of credit while a crash follows an abrupt contraction of credit. Observing this pattern of boom and bust, economists argue that an appropriate monetary policy can smooth out such a crisis-ridden cycle by repressing credit expansion in the boom, and by injecting large volumes of liquidity into the economy in the face of crisis. Assessing failures of previous policies, they have always pointed at the monetary authorities’ ‘misjudgement’ of the situation or populist governments’ ‘irresponsibility’. As discussed, however, the source of the cyclical expansion and contraction of credit lies deep in “the contradiction between the tendency for capital to develop the productive forces without limit, and the need to confine production within the limits of the expanded reproduction of capital” (Clarke, 1988, p.18). The tendency towards overaccumulation is not the failure of the proper operation of the market mechanism, it is the necessary form of the accumulation of capital and thus it is no wonder states’ ‘correct’ policies always turn out to be something ‘wrong’. Unable to overcome the contradiction inherent in the course of accumulation, in other words, state policies can only underpin one pole or the other of the contradiction.²¹

For instance, the state may adopt expansionary policies, providing capitals with ample credits to overcome the barriers to accumulation by improving methods of production, opening up new sources of supply and developing new markets, in the face of an impending stagnation, recession or deflationary pressures. But by loosening market discipline, and by strengthening the bargaining power of labour, it is likely to end up stimulating uncontrollable inflation or speculative boom in asset markets which will ultimately lead to an even more destructive crisis. In a word, there is no guarantee that

²¹On the concept and mechanism of state economic policy see de Brunhoff (1978, pp. 81–82, p.92).

expansion of credits will lead to a concomitant expansion of surplus value production validating the expanded credits (Holloway 2000, p.176). Likewise, the state can pursue restrictive monetary policies in order to avert the threat of a speculative bubble, but such policies, by jacking up the limits of the market, inevitably entail a great risk of stagnation, recession or deflationary collapse. The policy provides a strong imperative for capital to overcome the barriers to accumulation by improving methods of production, opening up new sources of supply and developing new markets, but at the same time it eliminates the financial means to do so while precipitating social-industrial disquiet across society. There is no guarantee of the effectiveness of the imposition of tight money: the liquidation of less efficient capitals and rising unemployment will not transmit to other productive capitals through the chain of market interactions causing a vicious circle, during which even the most efficient producers cannot but cease accumulation.

Since the dynamism and crisis-tendencies cannot be separated in the course of capital accumulation, it is also impossible for the state to successfully pursue monetary discipline and brisk growth at the same time. Capitalist production, Marx notes, “moves in contradictions which are constantly overcome but just as constantly posited” (Marx 1993, p.750), and state economic policies can help capitals to overcome barriers to accumulation, only to bring about another form of barriers. Of course, it does not mean that state policies have no discernable impact on the accumulation process. Although states’ interventions in markets cannot deal with the underlying contradictions of the capitalist mode of production, they can significantly affect the scale in which the contradictory character of accumulation manifests itself (Clarke 1988, p.83-84). Moreover, the state is fundamental to the handling of the class struggle, maintaining capitalist social relations and thus sustaining the law of value by political force in the face of severe down-turns. In this sense, state economic policies should be seen as a political tool of managing crisis-ridden class relations, rather than an economic solution, given by some external balancer which intervenes in capitalist economic relations ‘from outside’, to a specific crisis (Burnham 2011, p.496).

To deepen the understanding of the nature of state economic policies (i.e. to understand why their utility is confined to maintaining capitalist class relations), it is necessary to examine the nature of the capitalist state itself. As will be discussed below, the state is not

an institutional structure or apparatus that is separate from the capitalist mode of production; rather it is an integral part of it, thus depending on the contradictory reproduction of capitalist class relations for its own existence.

6. The nature of the capitalist state

The modern capitalist state emerged in the course of social struggles that abolished the direct political power relations characterizing pre-capitalist societies. Capitalist social relations are based on abstract forms of dependency, such as world market price movements and the wage based access to the means of production. In terms of the political economy of capital, it is characterized by the absence of direct forms of domination; capitalist society doubles itself into (depoliticized) society and (political) state. As Marx put it, “the establishment of the political state and the dissolution of civil society into independent individuals – whose relations with one another depend on law, just as the relations of men in the system of estates and guilds depended on privilege – is accomplished by one and the same act” (p.167, quoted by Bonefeld et al 1995, p.24). Capitalism replaced thus the relations of private power (e.g. monarchical power, noble privilege or guild masters’ power etc.) by the rule of law²². The rule of law designates a central authority that functions as the guardian of the public interest to which the many private interests have to conform, sustaining the impersonal and thus impartial ‘rule of law and money’ in the face of competing private claims. Correspondingly, the newly shaped ‘private sphere’ is meant to be devoid of direct, personal coercion. The social individuals, be they rich or poor, are all treated as equals before the law; each contracts with the other in pursuit of their own individual interest. In this society where the ‘political’ is abstracted out and then monopolized by the institutional state, labour and capital meet not as producers and appropriators of surplus value. Rather, they meet in “the exclusive realm of Freedom, Equality, Property and Bentham”:

²² The development of the bourgeois state form is not a necessary outcome or the essential structures of capitalist development. Instead, “it is the historical result of struggles in pre-bourgeois societies and the historical pre-condition for the possibility of capitalist forms of exploitation becoming dominant”. For a more in-depth explanation of the formation of bourgeois states see Gerstenberger (1992, pp.151-176; 2010, pp.60-86).

Freedom, because both buyer and seller of a commodity, let us say labour-power, are determined only by their free will. They contract as free persons equal before the law. Their contract is the final result in which their joint will finds a common legal expression. Equality, because each enters into relation with the other, as with a simple owner of commodities, and they exchange equivalent for equivalent. Property, because each disposes only of what is his own. And Bentham, because each looks only to his own advantage ... And precisely for that reason, either in accordance with the pre-established harmony of things, or under the auspices of an omniscient providence, they all work together to their mutual advantage, for common wealth, and in the common interest (Marx 1976. p.280).

It follows that the capitalist state, by transforming the inequality of social positions into the equality of the subjects of law, by imposing formal equality and freedom on the substantially unequal and exploitative class relations, plays an essential role in establishing and reproducing the relations of private property that characterize capitalist society. For Marx, the law of private property is the law of value. In its dynamic it is a law of more money, of profit. The political state is thus not a particular form of social organization that stands apart from the economic. Rather it is the political state of a depoliticized exchange society. As such it is the 'political' moment of the 'economic' process of capitalist production (Kettell 2004, p.21) and thus integral to the capitalist mode of production. Economy is political economy. From this perspective, the understanding of the state as a distinct force of social organization that can be appropriated by classes or 'factions' of capital for their own ends falls short in its analytical grasp of the political character of the political economy of capital.²³ The institutional existence of the state as a 'political' sphere presupposes the 'depoliticising' of bourgeois society rendering its conduct civil on the basis of the rule of law and money.

In sum, in the capitalist mode of production class exploitation takes place in the form of the free and equal exchange of labour-power. This is an exchange between the buyer of

²³Examples of this approach include Jessop (1983); Ingham (1984); Poulantzas (1973); Miliband (1969)

labour power and the producer of surplus value. The exchange relationship between labour and capital is one between equal legal subjects of law. The capitalist form of class domination presupposes that the use of coercion necessary in the course of exploitation (i.e. keeping workers away from the means of production) is not undertaken by individual capitalists but by an independent institutional authority: the state. It maintains an exploitative social order on the basis of the legal right of private property and the sanctity of contracts. In this sense, the state is a historically specific form or the process of political domination in capitalist social relations rather than a neutral institution which somehow rises above. Understanding this class character of the state provides a means of explaining why the state, in whatever form, and whoever is in office, cannot be the answer to the contradiction inherent in the capitalist mode of production.

7. The National political constitution of states and the global character of accumulation

By drawing the boundaries between the political and the economic, i.e. by depoliticizing class relations based on the right of private property, the state sustains the social foundation of the capitalist relations of production. Any state, however, that does little more than to uphold the rule of law and money will soon confront severe problems in maintaining political legitimacy. Legitimacy is bound up with brisk accumulation providing opportunities for wage-based income. For the sake of social order and political stability, economic profitability is a must. Every national state is thus under constant pressure to pursue socio-economic strategies for accelerating the expanded accumulation of capital (e.g. the provision of infrastructure, the education and regulation of workers, as well as the maintenance of monetary disciplines, etc.). Of course, the forms of such strategies would significantly differ from one state to another because every state exists in different conditions of production (e.g. the difference in terms of access to raw materials and technologies, population of workers, and the balance of power between labour and capital etc.), and emerged from different socio-historical contexts. Whatever the forms and contexts, however, each national state develops in the same global context that is governed by the relations of world market prices. They thus confront the same barriers to accumulation set by the world market. Capitalist society does not exist as a multitude of independent national societies; rather it is “a single global relationship of class antagonism

in which state power is allocated between territorial entities”, and thus “national states subsist through the global accumulation of capital which sets limits to the way in which political authorities contain social conflict” (Bonefeld et al 1995, p.30). The limits of capitalist accumulation are felt by states in the form of declining relative productivity that exposes its national currency to a growing speculative pressure. Worse still, speculative attacks on an ‘overvalued’ currency might well bring about a drain of international reserves and a depreciation of the national currency, with potentially disastrous effects on the public finances as deficits abound in the face of contracting credit supply.

Prevailing market prices are ultimately determined on the world market, while costs of production are determined nationally according to different exploitation conditions. Accordingly, capitals operating within a country where unit labour costs are higher than other countries would see their global (including domestic) market share shrink with unsold commodities piling up unless their selling prices are cut to the prevailing market prices. But cutting selling prices without cutting real wages means sacrificing profit rates and the resultant growing devaluation pressures on operating capitals. In that case, while sustaining the existing scale of production and employment would require more and more expansion of credits, devaluation pressures in the world market would emerge in the form of downward pressure on the country’s currency value. The growing gap between the nominal value of the currency (reflecting the purchasing power of the currency on the world market) and the real value of the currency (reflecting the labour time it can command in the production process) will inevitably precipitate the possessor of the currency to change their wealth into what they perceive as more reliable foreign currencies on the exchange market. If the central bank’s foreign reserves are not sufficient to meet the growing demand on the money market, the currency would have to be depreciated, precipitating further capital flight.²⁴

²⁴Critical IPE theorists (see Chapter 3) argue that the US is exempted from these kinds of pressures on currency owing to the special status of the dollar as the *de-facto* world currency that drives other countries (whose stake is also in the value of the dollar) to support it in favour of the monetary hegemon. This argument needs to be revised based on the Marxist conception of money as a form of social relation that is distinct from money as a commodity. The dollar, like other currencies, has a double existence; within the US territory, it is the sole material form representing value-producing social labour, while, outside the US, it is a commodity in relation to the various other currencies. As a commodity in the international money market, its price in terms of other currencies

Of course, such a currency depreciation offers capitals operating in the country an opportunity to offset the relatively high unit labour costs, but it would only be possible on the condition that the fallout of currency depreciation such as high interest rates, growing foreign debt burden and rising costs of imported capital goods can be fully offset by falling real wages in the midst of rising unemployment and poverty rates. If the state cannot successfully contain workers' resistance to the imposition of radical restructuring, then widespread bankruptcy and default would be inevitable, putting in peril the whole global accumulation process and through it, the reproduction of nationally organised class relations. The crisis cannot be contained in the original epicentre since for other countries it means an abrupt disappearance of export markets as well as a threat of default causing a chain of bank failures on a global scale. As Marx makes clear, "the balance of payments is in times of crisis unfavourable to every nation ... but always to each country in succession, as in volley-firing ... It then becomes evident that all these nations have simultaneously over-exported (thus over-produced) and over-imported (thus over-traded), that prices were inflated in all of them, and credit stretched too far. And the same break-down takes place in all of them" (Marx 1981, p. 492).

The validity of the law of value is world market validity. That is, for the sake of national wealth every state is fundamentally a territorialised political force for the achievement of competitive unit labour costs at prevailing world market prices.²⁵ In the pursuit of competitive labour relations, states pursue a plethora of policies aimed at keeping the exploitative condition of their boundaries ahead of the rest of the world. However, achieving global competitiveness is by no means a permanent solution to a crisis, because

can be buttressed by foreign authorities' purchasing interventions. But such a 'support' for the price itself does not change the class relation in the US in the way of producing more surplus value. Rather, by raising the average unit labour costs in the US relative to those in other countries, i.e. by making the condition of production worse, it is likely to widen the gap between the price (i.e. purchasing power over commodities) and the 'underlying value' (i.e. class power over labour) of the dollar, precipitating productive capitals in the US to move overseas in pursuit of surplus profits, and more and more speculators to bet on the fall of the dollar prices. As shown in the several cases (e.g. crises of 1977-9, 1987, 1992-3 etc.), dollar crises indeed frequently occurred in this way, which always required the American state (rather than other states) to reorganize the class relations to 'support' the class power of the dollar. In this sense, it does not make sense to argue that the US, due to the dollar's special status, is free from the pressure of the world market on its currency.

²⁵ On this in the context of classical political economy, see Bonefeld 2013.

the very pursuit of a higher productivity accelerates the tendency to overproduction and overaccumulation of capital on the world market. In the world market society of capital, “accumulation for accumulation’s sake and production for production’s sake” are both the means of avoiding bankruptcy and the source of a crisis-ridden process of economic adjustment. Consequently, crisis is not the outcome of domestic policy failures; rather the tendency to crisis is inherent in the course of accumulation on a global scale. Thus states cannot find a resolution of crisis; they can only attempt to suspend it in hope of moderating the fallout on their territorialised relations of production.

8. Conclusion

In this chapter, I have discussed Marx’s theory explaining how exploitative class relations in capitalism are organized in the value form, what the fundamental contradictions of the relation that is expressed as the tendency towards overaccumulation crisis are, and what the limit of the state as a form of the contradictory relation in managing the repeated crises is. Based on this theoretical foundation, in chapters six, seven, and eight I will analyse the development of the Sino-American imbalance by focusing on the states’ diverse efforts to make the social relations within their territories more conducive to accumulation, together with the tendency towards an overaccumulation crisis in the world market intensified by the very same state efforts. In empirical terms, those chapters will examine how state policies affected the trend of real unit labour costs (labour productivity) and how such policies as a response to an accumulation crisis, despite the resultant sustained (unbalanced) economic growth in both countries, ended up deepening, rather than countering, the overaccumulation crisis. This will be done by showing the empirical data such as the trend of falling capital productivity (low capacity utilization rates), rising unemployment rates, falling real wage growth, rising debt-to-income ratios and ultimately the growing possibility of financial crisis as well as widespread social unrest.

Chapter 5. Global accumulation crisis since the 1960s

This chapter reviews the history of the contradictory process of accumulation of capital in the world market, or more specifically, the development of the over-accumulation crisis that plagued the world economy from the late 1960s to the early 2000s. This chapter will present the historical-geoeconomic context, that is, understanding of the historically specific conditions of global capitalism, in which the US became a debt-ridden ‘consumer of the last resort’ while China emerged as the largest ‘global factory’, forming the Sino-American global imbalance.

1. Crises of 1960s: the breakdown of the Bretton Woods system

In the early post-war years, the global economy was in a severe imbalance of productive forces between the US and others. The war-ravaged Western Europe and Japan (without adequate international reserves, either dollars or gold) were under the pressure of the necessity of employing strict deflationary policies (for low real wages offsetting the low productivity relative to the US level) despite growing political unrest and the urgent needs of post-war reconstruction. As proven by the UK’s failed attempts to restore the full convertibility of the pound during 1945-47, such a requirement was clearly untenable, and 1930s-style protectionary measures or floating exchange rates seemed inevitable (Helleiner 1994, pp.62-63). These difficulties of the post-war global economy were resolved by the US’ massive provision of the dollar (which was as good as gold under the BW agreements) to Western Europe and Japan under the 1947 Marshall Plan and other aid programmes related to the Cold War. The ample infusion of the dollar into the world economy enabled US firms to enjoy ever-expanding markets, while allowing the European states to employ expansionary policies by which brisk investment in new means of production for boosting productivity was possible. Under these circumstances the US and other advanced economies could enjoy a heady mix of high profit margins, annual wage increases, moderate inflation, and relatively low levels of unemployment ensuring social stability.

During the latter half of the 1960s, however, the brisk investment and productivity growth began to give rise to the “basic phenomenon in crises,” namely commodity overproduction (Marx 1992, p.156). While international competition was becoming increasingly fierce as

the war-shattered economies of France, Germany, Italy, and Japan (which was now enjoying the most phenomenal growth of all advanced capitalist nations) staged a return to the world market, the growth of output was outpacing the growth in effective demand despite a rise in real wages (Kettell 2004, pp.31-32). By the end of the decade, the effects of this re-emergent crisis of overproduction were starting to make themselves felt throughout the industrialized world. Levels of unemployment and social unrest were starting to rise, investment and productivity growth were starting to decline, and profits were under increasing downward pressure in a vicious circle. From their peak levels during the latter half of the 1960s until the mid-1970s, profit rates in manufacturing sectors more than halved in France, Italy, and the United States; declined by nearly three-quarters in Japan; and fell by more than four-fifths in Britain (Mandel 1978, p.22; Moseley 1997, p.23).

Paradoxically, the crisis of profitability that, since the end of the 1960s, undermined the conditions for accumulation in advanced Keynesian capitalism, accompanied a dramatic expansion of financial markets. With the profitability in real productive investments ever falling, many firms had no choice but to increase their level of borrowing in a bid to maintain their existing scale of production, while other capitalists were increasingly inclined to hoard money or to pursue accumulation through financial (rather than productive) investments. In addition to this, governments also began to relax their macroeconomic policies and to enlarge public spending in an attempt to uphold levels of economic demand and to placate rising social tensions, while more and more individual households were trying to avoid any decline in living standards by incurring debt (Bonefeld et al 1995, p.41). Such growing monetary expansion detached from productive accumulation, or the attempt to sustain accumulation of capital through financial accumulation, was particularly vivid in the US whose global market shares were rapidly eroded by Europe and Japan.

Considering the narrowing productivity gap between the US and other advanced economies, the US had to cut real wages or make a breakthrough in productivity in order to preserve the competitive position it had enjoyed for decades (Mandel 1969, p.12). Unfortunately for the state, however, rising wages and social expenditure (such as on

public education or health-care systems) enabled workers to struggle against intensification of work and for higher wages, rather than bring about higher productivity of labour (Cleaver 1989). As a result, the US economy began to suffer from rapidly rising unit labour costs of production, directly pinching business profits²⁶ (Cleaver 1992; Glyn et al 1991). With rising unit labour costs, the only way business could avoid an even more rapid decline in the rate of profit was raising prices (the average rate of inflation between 1961 and 1965 was 1.3%, while between 1966 and 1970 it was 4.5%, reaching 6% by the end of the decade). Inflation was an immediate business response to the wage increases outstripping productivity. The government had accommodated this strategy by allowing the money supply to expand enough to finance the price increases. For policy makers, expansionary monetary-fiscal policies were one of the most pragmatic ways to sustain the present level of production and employment, and thus to placate rising social tensions. However, a rise in prices (meaning higher real unit labour costs) ultimately eroded the international competitiveness of US goods, reducing market share at home and abroad. As a result, the US trade accounts were constantly deteriorated during the 1960s, and it dropped to a deficit in 1971, while corporate debt rose markedly (corporate borrowing as a share of fixed investment more than doubled from an average of around 15% during 1962–1967 to around 36% by 1973) (Kettell 2004). Together with persistent capital exports and high levels of government spending (especially military expenditures related to Vietnam and other spending for the Johnson administration's Great Society programmes), the rapid deterioration in the trade balance produced a rising balance of payment deficit and the resultant growing 'dollar overhang'—the difference between the dollars in international circulation and the value of the gold backing held in Fort Knox. By 1968 the volume of dollars circulating outside the US had grown to an enormous \$38.5 billion from just \$9 billion in 1951, some \$23 billion more than America's available gold reserves (Mandel 1978, p.29-30; Armstrong et al 1991, p.163).

This expansion of dollars outside the control of US regulation developed a market in international debt, usually called the Eurodollar markets, which 'grew from \$3 billion in

²⁶ As the average growth rate of hourly compensation rose to 6.8% between 1966 and 1970, from 4.2% between 1961 and 1965, the average increase rate of unit labour costs also soared to 4.8% per year between 1966 and 1970 from 0.46% between 1961 and 1965 (Cleaver 1989).

1960 to \$75 billion in 1970' (Strange 1994, p.107). The role of the Eurodollar market as an unregulated international credit provider made it possible for any state to sustain expansionary policies (just like the US) without immediate internal or external adjustment measures (e.g. austerity measures or currency devaluation) in spite of a deteriorating current account balance. However, unless the expansion of the money supply leads to a corresponding decisive breakthrough in productive investment and productivity growth, reducing relative unit labour costs and current account deficits, a large and persistent current account deficit would trigger speculation against the national currency whose value came under growing suspicion. In fact, such balance of payment crises and financial turmoil became increasingly frequent and violent since the mid-1960s, as international borrowing by states was rarely matched by a corresponding expansion of productive investment owing to widespread industrial conflicts. Ultimately, following speculative attacks on the pound in 1968 and the franc in 1969, the US dollar became a target of speculation in 1971 amidst a growing realization that its value was now being progressively undermined (Krugman and Obstfeld 2008, p.517). The speculative attack led to a drastic depletion of US gold reserves, impelling Nixon to announce in 1971 that the US would no longer abide by the Bretton Woods agreement. In spring 1973 this culminated in the collapse of the Bretton Woods fixed rate system in a generalized shift to a more volatile system of floating exchange rates throughout the industrialized world.

2. Crises of 1970s: oil price hikes and Latin America's debt crisis

The sharp spike in oil prices (which between October 1973 and March 1974 quadrupled from \$3 per barrel to \$12 per barrel) was mostly a consequence of the same phenomenon that caused the BW system to collapse—the rapid depreciation of the dollar in the late 1960s and early 1970s. Although the Arab-Israeli war of 1973 was the immediate event that caused OPEC to cut production, the consequent rise in the price of oil served to accomplish OPEC's long-term objective: reversal of the decline in revenues in terms of gold (commodities) (Kliman 2012, p.59). In other words, it was an attempt by the oil exporting countries to recuperate some of the value they had been losing over the previous decade due to declining terms of trade. Such attempts were necessary for the governments of the OPEC countries to respond to their growing internal problems of rising social unrest which they could only manage with increased revenues from oil exports (Cleaver 1989).

As an immediate effect of the rise in oil prices the world economy went into deep recession with consumption and investment slowed down everywhere. Over the same period, however, inflation accelerated in most countries even though unemployment was rising. This combination of stagnating economic growth and high inflation, called stagflation, was the result of the failed attempts of states to convert higher costs of oil into a reduction in the real wage, i.e., in holding down nominal wage increases in the face of oil boosted inflation (Cleaver 1989). Higher oil prices would mean higher prices for all consumer goods requiring energy in production and this inflation would undermine real wages. In this situation, if real wages are kept repressed, then the loss of real wages would be transferred in a roundabout manner into the Eurodollar market and hence become available for business investment. However, in most countries workers, despite increasing rates of unemployment, achieved higher nominal wages to maintain their customary standard of living, while governments employed expansionary fiscal and monetary policies in the fear of even-higher unemployment and social unrest. Any policies for monetary growth (incurring further current account deficits or depleting international reserves) during this period, thus, contributed to maintaining workers' real wages rather than to improving the conditions of production, just like in the late 1960s. As a result, during the 1970s international credit rapidly expanded at an annual rate of \$50 billion between 1973 and 1975, \$ 100 billion between 1976 and 1978, and more than \$ 150 billion between 1979 and 1981, the majority of which was increasingly dissociated from industrial accumulation, and instead financed public and private consumption spending (Bonnet 2002, p.107). Insofar as production conditions remained the same, there was no reason that rising prices would stimulate productive investment, reducing unemployment. Instead, the expanded credits (petrodollars) were used to underpin existing levels of consumption with deteriorating current account deficits (incurring non-repayable foreign debts). This trend was most manifest in the US and Latin American nations where the power of labour constrained policy makers who were unable to halt expansionary policies.

Latin America's rapid economic growth from the early 1960s until the mid-1970s corresponded to the period in which capitals in industrialised nations increasingly sought to escape militant workers' struggles at home (Bonnet, 2002, p.104). Nations in Latin America whose working class was then subject to the open repression of military dictatorships provided a seemingly perfect site for investment. However, this relocation of

production to territories where the conditions for accumulation appear more favourable tends to soon encounter barriers of its own creation: the explosive growth of industry quickly led to labour shortages, which, in combination with more active and organized workers struggles, drive up costs of exploitation (real unit labour costs). As Bonnet puts it, “the insubordination of labour trails capital like its own shadow. The flight of capital from the insubordination of labour in the capitalist centres meets up with the insubordination of labour in the periphery” (2002, p.105). This was the case in Latin American developing countries since the mid-1970s with a wave of strikes throughout the region.

Faced with strengthening workers’ struggles and rising costs of production, states and capitals in the region relied on credit expansion in an attempt to improve productivity by introducing new means of production and development of infrastructure, while curbing rising unemployment. They extended the public sector by taking over failing private enterprises, maintaining them as sources of employment to stave off the threat of working-class unrest. The number of state enterprises more than doubled between 1970 and 1980, as did the number of their employees (Harvey 2007, p.99). In the 1970s many Latin American countries, notably Brazil, Argentina, Venezuela and Mexico borrowed huge sums of money from international money markets where huge sums of petrodollars (lacking attractive investment opportunities elsewhere) were being accumulated. The borrowing was also facilitated by the US, which relaxed the capital controls that it set up before 1974 while their persistent expansionary policies induced the weak dollar and low interest rates in financial markets. The annual net capital flows to Latin American countries climbed gradually at an average rate of \$814 million between 1950 and 1965 (equivalent to 1.2% of regional GDP) to \$4,042 million between 1966 and 1973 (2.8% of GDP). From then, the increase accelerated, reaching averages of \$15 billion between 1974 and 1976 (4.2% of GDP) and \$28 billion between 1977 and 1981 (4.5% of GDP) (World Bank 1995). In consequence, the total stock of Latin American external debt had already ascended to \$258 billion in 1980, a sum of which the major part was long-term public debt (\$146 billion) and an important portion was short-term (\$68 billion, against \$42 billion of long-term private debt and \$1,413 million owed to the IMF), while interest payments and the repayment of the principal amount increased rapidly, amounting to \$66 billion in 1982 compared to only \$12 billion in 1975 (Bonnet 2002, p.108; Theberge 1999). At the time of borrowing, Latin

American economies were exhibiting great performance and growth, which also played an important role in relieving the effect of the recession in other countries during the 1970s.

Credit expansion itself does not necessarily cause a financial crisis. It leads to a crisis when it is not matched by a corresponding expansion of productive investment and productivity growth that presupposes class relations favourable to capital (carrying out restructuring plans). As referred to above, the expansion of credit in Latin America, during the period, was largely dissociated from industrial accumulation and instead used to finance public and private consumption (especially oil deficits) (Soederberg 2001). As a result, the ratio of debt-to-GDP continued to increase with ever-growing debt-service burden, eroding potential for future growth, and so creating bad debts. By the early 1980s, most nations in Latin America could not but increase resources towards repaying debts which resulted in further reduction of domestic output and investment (Palat 2003). The economies were no longer capable of increasing their economic growth by means of increasing debts. In short, foreign debt of Latin American nations surpassed the amount their economies were able to earn.

The US at that time was witnessing the futility of currency depreciation in improving domestic production conditions. Just like the effect of oil price hikes, depreciation of national currency can be effective in lowering relative unit labour costs only when it is accompanied by cuts in real wages. Without a cut in real wages the fall in terms of trade caused by depreciation will lead to further trade deficits and more depreciation in a vicious cycle (Shaikh 1996, p.67). The US government (trying to avoid direct confrontation with workers), however, had only focused on dealing with unemployment problems through expansionary monetary and fiscal policies. As a result, while the unemployment rate dropped from a recession high of 8.3% in 1975 to 6.0% in 1978, inflation was reignited and the current account was pushed further into deficit with a steep depreciation of the dollar from 1976 (Krugman and Obstfeld 2008, p.541). The value of the dollar depreciated almost 20% between 1976 and 1979, which in turn encouraged oil exporters and speculators to re-boost the price to its historical level. There emerged an urgent need for the US monetary authorities to intervene to stop the vicious cycle and regain confidence in the dollar. In 1979 a strong intervention was implemented by Paul A. Volcker, the newly

appointed Federal Reserve chairman, who announced a tightening of US monetary policy and the adoption of more stringent procedures for fighting inflation (wage increases) (the reference interest rate passed 15% during 1981 and the start of 1982 whilst annual dollar inflation fell from 12 to 2.5%) (Mussa 1994). As a consequence, the feeble credit-based recovery from the oil shock fell into the deepest recession since the Great Depression of the 1930s.

The dramatic interest rate hikes in 1979 immediately undermined debt-ridden Latin America's ability to repay its debts. The US' macroeconomic stringency -the soaring interest rates together with the strong dollar- raised the cost of debt service to unsustainable heights, while the subsequent global recession (and a heavy fall in the prices of primary commodities) made it more difficult for the 'debtors' to earn foreign exchange. As a result, global debt problems went from bad to worse. As Mexico, in August 1982, threatened to default on its national debt, the majority of international banks refused to refinance developing states' short-term loans, which in turn drove Argentina, Brazil, Chile and a host of other developing countries to financial crises. In a bid to forestall the danger of a generalized default and an international financial collapse and to ease the strains of the severe recession, major industrial states led by the US now reversed their tight economic policy stance and embarked on another large monetary expansion based on the provision of fresh credit to debtor nations. While this led to a resumption of large-scale capital flows to developing countries at an average of \$18.5 billion a year during the latter half of the 1980s (Kettell 2004, p.35), most of this now gravitated toward the booming economies of East Asia, where average annual growth rates were at that time some two and a half times higher than those in advanced countries.

3. Crises of the 1980s: failures of restructuring in Latin America and the US

Throughout the 1980s, the debt crisis of Latin America (and some Eastern European states) had continued, resulting in what many commentators have called a 'lost decade' of growth. Between 1970 and 1980 the GDP of the region expanded by almost four folds (396%) whereas between 1980 and 1990 it scarcely increased by one fourth (27%). In a number of years there was actually an absolute fall in production. The stock of foreign debt and its impact, despite the massive outflow of money-capital during the decade, could not but

increase in the wake of this poor performance. By the end of the 1980s, the total stock of Latin American foreign debt had risen to \$476 billion: of this a larger part than in 1980 was long-term public debt (\$355 billion against \$77 billion short-term debt) and a much smaller part (\$25 billion) was long-term private debt, owing to various policies of state assumption of private debt, and a significant part (\$18 billion) was owed to the IMF for restructuring programmes. All the debt indicators had worsened: the stock of debt represented 33 percent of the annual product of the region compared to 26.5% in 1980, and 162% of exports in 1990 as against 88% in 1980 (Bonnet 2002, p.108; World Bank 1995).

This long continuation of the crisis reflected the inability of states and capital to discipline the working class and to restore conditions for a new cycle of accumulation through restructuring processes. In the years of crisis, structural adjustment programmes were imposed by the creditors (with the IMF as their proxy) upon the 'debtor' nations as a requirement of debt refinancing, and the programmes were essentially policies of austerity designed to increase the availability of foreign exchange (the source of debt-repayment) primarily by cutting imports and fiscal expenditures as well as privatization of state-owned properties. However, no state was able to put their people to work profitably by making them willing to accept the austerity demanded by the IMF, albeit they could force workers to work harder and longer by threatening poverty and unemployment (or even by open repression of military dictatorships entailing persecution and assassination of union leaders, and prohibition of unions and strikes) (Cleaver 1989). In other words, the states failed to achieve real unit labour costs (the combination of lower real wages and higher productivity growth) low enough to earn profits on the world market. Rather, in some countries like Brazil, intense strike waves survived through a decade of repression and recession in the 1980s, which made it possible for workers to achieve higher real wages (during the four years from 1985 to 1988, real industrial wages in Greater Sao Paulo grew by an average of 10% per year) (EIU, Brazil, 1989-90).

The persistent inability of states to impose repressive policies and strict discipline on society forced them into repeated rescheduling of debt, instead of debt-repayment and re-establishing development. The crisis did not end until 1989 when the US, fearing political instability to its south, insisted that American banks give some form of debt relief to

indebted countries. In 1990, banks agreed to reduce Mexico's debt by 12%, and within a year debt reduction agreements had also been negotiated by Costa Rica, Venezuela, Uruguay, and Niger. When Argentina and Brazil finally reached preliminary agreements with their creditors in 1992, the debt crisis of the 1980s had officially been resolved even though it re-emerged after a while (Krugman and Obstfeld 2008, p.634).

The struggle to take advantage of the crisis to reequip and reorganize production processes was also underway in the US and later in other states with strict anti-inflationary or monetarist policies. Drastic reductions in money supply and a dramatic increase in interest rates (first employed by the Fed aimed at fighting inflation and stemming the dollar's freefall, and then employed by European and Japanese monetary authorities fighting domestic inflation caused by strong dollars –depreciation of their currencies) were essentially a strategy of improving the conditions of production by 'eliminating' inefficient capital and labour ('living beyond means') under the intensified competitive pressures during a recession.

Bankruptcies and liquidations of inefficient firms would allow larger and more efficient capital to benefit from takeovers and mergers, while rising unemployment would undermine workers' resistance to higher exploitation in the form of wage cuts, longer working hours, and intensification of work. In this way, the shock of recession can possibly serve to restore the profitability of remaining capital, paving the way for renewed economic growth (Clarke 1988a, 1991). In the US, under the Reagan administration, such policies were accompanied by more active government intervention in an attempt to make labour market more flexible (more sensitive to high unemployment) by cutting subsidies ('social wages') for the unemployed and by attacking trade unions, while privatizing state-owned businesses and removing costly regulations on financial markets.

The strategy, however, was to exert a full restorative influence on the economy only if the government was fully determined or strong enough to risk a recession deep enough to literally 'remove' inefficient capital and labour in spite of successive bank failures (entailing a generalized default and an international financial collapse) and widespread social-industrial disquiet. Of course, such a crisis was not realized. From 1981, further

reduction in social programmes was blocked by both organized workers and affected businesses, while tax cuts offsetting the impact of high interest rates and massive military spending as a Keynesian stimulus were accelerated.²⁷ More importantly, the key monetary policy was dramatically reversed from restraint to expansion (3-month T-Bill rate of interest fell rapidly from 14.03 % in 1981 to 7.86% in 1983 to 5.18% in 1986) to reduce the risk of the bad debt crisis resulting from the heavy debt service burdens of foreign and domestic debtors (Mussa 1994, pp.121-124). Due to this policy turnaround, ‘inefficient’ capital and labour were still able to weigh the economy down as a ‘cost’, bedevilling the whole 1980s.

After a deep recession between 1980 and 1982, the US economy (and other countries reliant upon exports to US markets) had rebounded and began a sustained period of economic boom with the general rate of profit pulled out of its long slump. However, the recovery was mainly based on credit expansion and high unemployment, not upon brisk productive investment and rising household income. It is not deniable, despite the rosy numbers on the chart, that the economic boom started in 1983 had been founded on the unsustainable pillars of further intensified work of the employed workforce (including longer working hours and lower hourly earnings) by a concerted attack on labour, a loosening of macroeconomic policy, and a continuing accumulation of debt, rather than an expansion of employment or a significant restructuring of productive means or methods.²⁸ As a result, although the US’ relative unit labour costs were reduced, it remained still higher than other countries (such as Japan, Germany, and Asian NICs), leaving global market share eroded (Shaikh 2011, p.54). Many manufacturing firms producing tradable goods, which were affected by the exceptionally strong dollar, turned into commercial vendors, closed down plants and sub-contracted production to low-wage countries and imported final products (cheaper than locally produced ones) into the US (Glassman 2001, p.83). Also, as the rise in profits was not sufficient to make productive investment more profitable than investing in other unproductive (commercial and financial) sectors of the

²⁷ As a result of the so-called Military Keynesianism of the Reagan administration, the federal budget deficit rose to \$221,000 million in 1986 from \$74,000 million in 1980 (Harman 2007).

²⁸ For example, the household debt-to-income ratio grew steadily from 63% in 1981 to 82% in 1990, while productivity growth had stagnated at around 1.5 % during the 1980s (Shaikh 2011; Harman 2007; Kliman 2012, pp.62-63).

economy, the gains achieved through wage and tax cuts remained in money-form, searching for investment opportunities in financial markets. Moreover, the competition among financial lenders in the context of a series of deregulatory moves furthered debt-financed consumer spending and property speculation, fuelling real estate bubbles and the long bull market on Wall Street at a time when manufacturing exports were declining, starved of investments.

The major by-product of such a credit-driven economic boom was the constantly ballooning federal budget deficit and an expanding trade deficit, both of which had to be increasingly financed by overseas borrowing (Cleverly 1992). It was by this time the financing of the US trade and budget deficits through capital imports transformed the US from the 'world's largest net creditor to its largest net debtor' (Walter 1993, p.231). The imminent problem was that to attract the money necessary for financing deficits, the Fed had to maintain enough monetary restriction to keep American interest rates attractive to foreign investors. Further, as it was evident the deficits were rising for financing public-private consumption demand rather than productive investments (that would be the source of debt repayment), it was necessary for the US to offer increasingly higher interest rates (as a risk premium for possible dollar depreciation) to dollar-denominated asset holders, despite the possible negative effects on debt-financed boom (especially the negative effects on banks suffering from bad-debt burdens). Faced with this dilemmatic situation, the US attempted to overcome the external constraints on its credit-based boom by means of policy coordination with other states whose economic growth also depended upon the US consumption growth. Through a set of international policy agreements, known as the Plaza Accord (1985), surplus-running countries, especially Japan and West Germany cooperated to bring down the value of the dollar and pursued expansionary fiscal-monetary policies in an attempt to improve the US trade deficit while allowing the Fed to further lower interest rates. This was essentially a strategy to lower the US' relative unit labour costs (improving the competitive position of the US) by deteriorating the production conditions of other trading partners especially Japan and Europe, rather than by improving the exploitation conditions either in the US or in other countries. In other words, as it seemed impossible to repress consumption further in the US, state managers choose to boost consumption in other regions through expansionary fiscal and monetary measures together with an

appreciation of their currencies against the dollar. The outcome of these policies was a world-wide inflationary expansion of credit; too much international liquidity was released without corresponding improvement of production conditions.

Further, in the US, the rapid depreciation of the dollar (approximately 30% by 1987) did not improve the trade account as workers soon achieved higher wages to maintain their standard of living, making the real exchange rates unchanged. Rather, the fall in terms of trade made the size of the deficit larger, reaching the (then) post-war record level of 3.6% of GNP in 1987 (Helleiner 1994, p.183-5). As a result, Japan and Europe encountered an explosion of monetary growth with stock markets and real estate markets overheated. The level of corporate debt began to grow far in excess of investment throughout industrial nations (especially in the US, where levels rose from around 30% to 43% of GDP from 1981 to 1991); the scale of household financial liabilities as a share of disposable income also grew steadily, increasing by around a fifth in the US and by roughly a third in France, Japan, and Britain; and a speculative boom rapidly emerged on the world's stock markets, during which the total value of US shares tripled, that of the FT quadrupled, and Japan's Nikkei average soared by more than four-and-a-half times (Kettell 2004, p.36). 'Money expanded without having been earned and without being checked by the generation of industrial profits' (Bonfeld et al 1995, p.55), and the debt-driven boom and stock market bubble required ever more expansion of credit merely to maintain themselves. At a certain point, there was certain to be an outbreak of panic as speculatively inflated asset prices and levels of accumulated debt were too high to be sustained by productive activities. The result would be a frenzied scramble for cash, a collapse of stock market values, and a sharp restriction of credit, while the immediate prick to the bubble could be in any form.

When the German Bundesbank finally raised interest rates in the fear of further inflation and resurgence in wage struggles in August 1987, the dollar started to go into freefall as speculators bet on further dollar depreciation. When the Fed rapidly increased the interest rates to save the dollar, the stock market bubble based on cheap credit also started to collapse, which in turn drove banks to raise interest rates further, putting a drastic end to another speculation-driven phenomenon: the real estate bubble that had been expanding during the 1980s.

The crash of 1987 was followed by the deep and prolonged recession of the early 1990s. From 1990 to 1992 levels of output growth, productivity, investment, and profitability all declined heavily, while unemployment again soared. In response to the recession, the industrialized nations of the West again embarked on the well-worn path of macroeconomic relaxation in an effort to revive economic growth. From 1991 to 1993 average short-term interest rates fell from 8.1% to 5.3% and the annual growth of narrow money rose from 6.9% to 8.8% (IMF 1996, quoted by Kettell 2004, p.36). This was a sort of bailout plan to ‘fix’ the crisis by throwing vast sums at big lenders in the *hope* that they would resume lending and so pull the economy out of its crisis. Because this ‘solution’ paid little attention to the underlying problems of production, speculative activity increased as capital again clamoured to find non-productive means of accumulation. This was graphically demonstrated by the rising torrent of capital now seeking solace in developing economies, inflows to which rose from \$95 billion in 1991 to a peak of \$245 billion by 1996 (Burkett and Hart-Landsberg 2001, p.5). In particular, this influx of capital helped to sustain the boom in East Asia, where real GDP growth was now accelerating to more than three times the level of the world’s most advanced economies. Belying these appearances however, the Eastward extension of the world market did not offer a sufficient means of escaping from the problem of global overproduction, but was itself predicated upon an unsustainable rise in debt and speculation. Less than half of the capital inflows to East Asia were being used for direct productive investment, while Japan, by far the dominant economy in the region and the second largest economy in the world, was now entering its worst ever recession crippled by a rising stock of bad debts accumulated during the boom of the 1980s (Bernard 1999, p. 191).

4. Crises of 1990s: the Asian financial crisis

While rates of economic growth slowed dramatically in the North Atlantic economies from the mid-1970s, and the economies of Latin America and Africa contracted under the weight of the debt crisis in the 1980s, East and Southeast Asia were a dynamic pole of the global economy from the mid-1980s until the end of 1990s (Dicken 1998). Industrialisation and export-led growth in East Asian countries had been built heavily upon low-wage labour. Under anti-communist dictatorships, real wage growth was extremely limited between the end of the Second World War and 1975, and was far slower than

labour productivity growth from 1975 until 1990 (Glassman 2001, p.135). While such national development policies were critical to the rise of Asian economies, global economic restructuring also played an important role. With the global economic crisis of the early 1970s, some core country manufacturers began countering falling profitability by selectively off-shoring labour-intensive assembly operations to developing countries. Much of this investment, in electronics for example, went to Asian countries to take advantage of the favourable conditions for capital there (Henderson 1989). In particular, as the value of the yen against the dollar doubled in the wake of the Plaza Accord in 1985, more than a few Japanese manufacturers suffering from the increased costs of production also began off-shoring labour-intensive functions.

The boom of the late 1980s and early 1990s, however, quickly encountered barriers of its own creation: an enormous excess-capacity and price wars in export markets (such as autos, semi-conductors, chemicals, steel, and fibre-optics markets) in which they competed with one another (McNally 2009, p.63). While falling market prices was eroding profit rates, increasing barriers to export-led growth were also brought on by the rise of China as an export manufacturing power with price competitiveness based on the strict labour discipline and exceptionally low wages (which had been made possible by a huge expansion in the reserve army of labour, resulting from massive dispossession of peasants and agricultural labourers) (Bernad 1999, p.197). The opening of China and the movement of large amounts of investment by Hong Kong and Japanese capitalists posed a serious threat to continued expansion of East Asian manufacturing, particularly in low-wage, labour-intensive industries. During this period China had taken a larger share of the US import market, driving out other Asian countries (Glassman 2001, p.133). According to an estimate proposed by Fernald and Loungani (2004, p.2), China's share of the total Asian exports to the US market doubled from near 25% in 1989 to 50% in 2002. Examining this trend in a detailed industry level (Table 5.1), they also found that China's US market share soared across virtually all the sectors of industry, while the share of the NIEs (South Korea, Singapore, and Taiwan) and the ASEAN-4 (Indonesia, Malaysia, Philippines, and Thailand) significantly fell or stagnated during the period.

		Computers and semiconductors	Apparel and footwear	Household goods
China & HK	1989	7	36	24
	2002	24	69	67
NIEs	1989	72	52	66
	2002	42	12	22
ASEAN -4	1989	21	12	10
	2002	34	20	11

Notes: This table indicates the three largest industries of US imports from these countries.
Source: Fernald and Loungani 2004, p.2

Moreover, the Chinese state exacerbated the competitive pressures in 1994 when it devalued its currency –a move that occurred in the same year as the NAFTA went into effect, improving Mexico's position as a production base for low-wage exports to the US.

The barrier to further development of capital accumulation was finally solidified by strengthening working class struggles. The development of working class struggles, shown in a rapidly increasing number of strikes and workdays lost from 1990 to 1997 around Southeast Asia (Pasuk and Baker 1998; Glassman 1999, pp.310-11; Chang 2009, pp.194-209), through undermining state regulation of labour and labour relations on the shop floor, continually worsened the conditions of production. Growing labour militancy might be seen as reflecting the increased bargaining power of labour under conditions of relative labour shortage, or as an overdue response to years of wage repression, or as a combination of these factors. It can also be seen as part of the emergence of more democratic forces in the societies that have pushed for political liberalization and demilitarization (Ji 1997). The immediate outcomes of working class struggles were the rising cost of exploitation, pinching business profits: rapid wage increases outstripping productivity growth with unit labour costs soaring, a phenomenon clearly seen in most of Asian countries including Taiwan, Thailand, Indonesia, Singapore and Malaysia in the 1990s.

Faced with increasing competitive pressures in global markets as well as an increasing cost of exploitation in the late 1980s and the early 1990s, states and capital attempted to overcome the barrier through liberalization of financial markets, enabling individual capitals to introduce new means of production and survive competition through the massive expansion of credit. In order to encourage rapid inflows of foreign capital and bridge a projected savings- investment gap, most Asian governments undertook a number

of financial liberalization measures during the early-mid 1990s (Pasuk and Baker 1998, pp.98, 116-17, 318-19; Bernard 1999, p.191). The growing demand for credit was met by the growing supply of credit in the global financial markets which rapidly expanded during the recession of the industrial countries. Much of this new global finance found its way into these 'emerging markets', as the previous manufacturing growth booms there made their prospects appear good (Bernard 1999) As a result, external debt in developing Asian economies rapidly grew from \$367 billion in 1991 to a peak of \$655 billion by 1998 (IMF 2003).

Just as was in other developing and developed nations in the previous decades, however, expansionary policies were ineffective in creating more favourable conditions of production (in particular compared to the exceptional conditions of China). While unsuccessful in overcoming working class resistance to restructuring processes, individual capitals attempted to go beyond national boundaries, moving to places with more subordinate labour forces, notably China. For instance, Korea's overseas FDI began massively to increase in China since 1994, outstripping inward FDI by \$62 billion in 1996 (Kim 2000, p.113). Over the same time, inefficient capitals sustained by expanded credit continued to place earned profits into markets which promised higher returns and shorter turnover times than productive investment: principally the real estate sector and the stock market, booming under the dramatic inflow of hot money.

Ultimately, returns in finance and real estate markets are dependent on the continued profitability of production, and the growing disjuncture between them leads to them finally becoming a trigger of financial crises. The phase of open crisis began with the collapse of real estate values and manufacturing export growth during 1996, which led to disinvestment from the stock market and speculative pressure (capital flight) on the Asian currencies²⁹ (Chang 2001). While banks were attempting to recover their losses in the collapsed firms by withdrawing further loans, foreign financial institutions began to refuse rollover of the short-term loans in the fear of default. With the massive increase in demand for dollars in foreign currency markets, the deadly currency crisis followed, precipitating

²⁹ The stock price, which showed its highest level, 1,027.4, in the Korean Composite Stock Price Index in late 1994, fell to 350.68 in late 1997 (Chang, 2001).

massive liquidation of capital (Chang 2001, p.208). Capital accumulation sustained by massive credit expansion without more substantial shifts in the organization of labour failed to overcome crisis tendencies, revealing its limits in the form of financial crises and mass bankruptcies. While Asian states and the IMF were carrying out a structural adjustment program designed for repayment of foreign debts at the cost of domestic consumption, the economies entered into a severe recession until 2000, with official unemployment more than doubling (as of 2000 it remained more than twice the 1996 level in Korea and Thailand), and real wages remained 10% below 1997 levels in the Asian countries (Glassman 2001, p.141).

Meanwhile, East Asia's setback sparked a broader crisis that engulfed developing countries as distant as Russia, Brazil and Argentina, as it brought about a general capital flight from emerging markets (capital flows to emerging markets as a whole almost halved from \$292 billion in 1997 to \$150 billion by 1998) while the prices of primary commodities (their key exports) were under growing downward pressures. When Russia defaulted on its internal external debts, causing global investor jitters and financial chaos in early 1998, the fear of a worldwide depression prompted a series of interest rate cuts by the Fed together with an unprecedented coordinated interest rate cut by eleven European countries.³⁰ These emergency measures helped to avert a global economic meltdown, and by the end of 1999 the worst of the financial crisis seemed to be past. However, while the dramatic explosion of monetary growth suspended the emergence of an imminent worldwide financial collapse, it now began inflating the biggest stock market bubble, the so-called dot-com bubble, in the US.

5. Crises of the early 2000s: the burst of US dot-com bubble

During the latter half of the 1990s the faltering world economy was being increasingly propped up by a surge in the economic performance of the US. American GDP growth doubled from around 2 % during the first half of the 1990s to an annual average of 4 % from 1995 to 2000; US profits peaked at a twenty-five year high in 1994; and labour

³⁰ From 1996 to 1999 short-term interest rates were reduced from an average of 4.3% to 3.4%, while the growth of narrow money increased from 4.9% to 8.2% (Krugman and Obstfeld 2008, p.548)

productivity grew from an average of around 1.5 % during the mid-1970s to the mid-1990s, to around 2.25 % during the latter half of the decade, stimulated by the extensive application of information technology and by a more intensive rate of exploitation than in other advanced economies (including longer working hours and lower hourly earnings) (Kettell 2006, p.40; IMF 2003). While the Reagan era's military Keynesianism was not the answer to the low levels of economic performance, it was at least politically successful in disciplining labour and thus restoring class power to capitalists (Harvey 2007, p.90). And this, together with the impact of the severe recession of the early 1990s, enabled the Clinton administration to 'complete' the Reagan era's neo-liberal reform processes (through large cuts in social programmes and balanced budget). Flexibility in labour markets and drastic reductions in welfare provision (social wages) began to pay off for the US, putting competitive pressures on the more rigid labour markets that prevailed in most of Europe and Japan (Harvey 2007, p.92).

This brisk growth referred to as 'New Economy', however, was largely predicated on relatively low interest rates supported by the large transfer of capital searching for a 'safe heaven' away from emerging markets' currency risks (and in part from the impacts of the 'Reverse Plaza Accord' which artificially lowered the yen against the dollar in 1995). As low interest rates made stocks relatively more attractive than bonds, a significant portion of this increase of foreign capital went into the US stock market. When financial instability in developing countries became serious in 1997, this torrent of financial capital became even stronger, generating a speculative bubble once again; it was in effect a transfer of bubble from East Asia and Japan to the US. Net foreign purchases of US stocks rose rapidly from \$12.6 billion in 1996 to \$66.9 billion in 1997, thereby boosting the demand for stocks further. This was over three times the previous record of \$19.0 billion in 1993. As a result, stock prices have increased roughly 50% between 1998 and 1999 (and have increased 150% since 1993) (Moseley, 1999, p.36). Without a corresponding breakthrough in production conditions and generation of more profits, the enormous amount of funds injected into the stock market would necessarily form a speculative bubble which was bound to burst with a financial crisis and a subsequent recession just as occurred in East Asia. In the late-1990s, for example, price-earnings ratios on the NASDAQ were recording an all-time high at more than eleven times the post-war average (Kettell 2006, p.39). During the early months

of 2000, as it became evident that high-tech stocks were now massively overvalued given their rate of return, the dot-com boom rapidly collapsed, driving stock markets around the world into a precipitous decline followed by the severe global recession in 2001.

At that time the recession was presented as the deepest since the Great Depression. However, another quick bout of interest rate cuts by the Fed, coupled with large tax cuts and massive military spending favoured by the Bush administration, made the effects of the crisis brief. It seemed inevitable for the US monetary authority and government to adopt such measures, considering the growing burden of servicing the huge debts piled up by both business and household during the period of stagnating real wages and speculative property boom. The interest burden of the US corporate sector (expressed as a proportion of its fixed costs), for example, had grown from around 10% in 1996 to around 18% by 2001, while the ratio of household debt to disposable income had reached the unprecedented height of 94% by the year 2000 (Harman 2007; Glyn 2006, p.53). In this situation, allowing interest rates to rise meant a widespread outbreak of default that would pressure the banking system as a whole. Also, it would trigger the onset of a global crisis as global economic growth and the ability of developing countries to continue servicing their debt burden, since the end of 1990s, had become ever more dependent on the US' growing consumption market which itself was also heavily based on growing household-indebtedness (by 2000, for instance, US imports accounted for almost 20% of world exports, and 4% of global GDP).

Consequently, over the course of several decades for the US and all other countries reliant on US consumption demands, as Harman put it, "credit expansion acted like a drug for the system, seeming to give it great energy and creating a sense of euphoria, with each brief hangover being followed by a further dose until the metabolism as a whole suddenly found itself being poisoned" (Harman 2009, p.280).

6. Conclusion

This chapter has briefly outlined the history of the contradictory process of accumulation of capital in the world market from the late 1960s to the early 2000s. During this period, the world economy was driven by the dynamics of an overaccumulation crisis. The

tendency to overinvestment and overproduction inherent in the capitalist mode of production expressed itself as falling profit rates, decreasing growth rates, and intensifying class struggle on a world scale, which was accompanied by a growing pool of workers and capitals sat idle from the production process. While governments tended to respond to rising unemployment and growing social tensions by expanding the supply of money and credit, surplus capital 'unemployed' in the increasingly unprofitable productive activities began to reinforce the global torrent of money moving across the world in search of more favourable exploitative conditions and/or more profitable speculative outlets, entailing brisk yet temporary economic growth on the one hand, and a destructive financial crisis on the other. It was this contradictory development of capital accumulation and crisis in the world market that had enabled or forced individual national economies including the US and China to develop in the specific form. Keeping this historic context of the global accumulation process in mind, the following chapters will explore particular policies and socio-economic developments of China and the US that formed the peculiar phenomenon of the global imbalance from the mid-1990s until the mid-2000s.

Chapter 6. The Rise of China as a World Factory

1. Introduction

The purpose of this chapter is to understand how China transformed itself into a surplus-running 'factory of the world'; how the state secured such a position in the global economy. For this purpose, the chapter analyses the economic policies employed by the state during the reform era with special attention to its role in creating social conditions conducive to lowering relative unit labour costs in China. At the same time, the contradictions and limitations the policies have borne will also be discussed. As the Chinese economy has been shaped not only by domestic social relations but by the development of global capital relations (in particular by the 'consumer of the world': the US' economy), it should be noted that this chapter provides only one part of understanding China's rise as well as the phenomenon of Sino-American global imbalance. These analyses will be supplemented by the following chapters.

This chapter consists of three sections. The first section presents the contradictory class relations in the Mao era which resulted in a serious politico-economic crisis in the mid-1970s. The crisis of Maoist social relations, together with the well-developed social infrastructure, provided the basis upon which the reform process gathered momentum. The second section deals with the second stage of reform (from 1978-1992). It first briefly outlines economic policy changes during the period, and then discusses the limitations and contradictions of such policies in creating conditions conducive to productivity growth. Examining the trajectory of this period's reform is important, as the following round of reform in the 1990s was based on lessons learned from this era. The third section analyses how the Chinese state organized social relations as a way of lowering relative unit labour costs through diverse economic policies encompassing restructuring of state-owned enterprises, public management of the labour force, the banking system and foreign trade/exchange rate policies. These analyses are followed by examinations of the contradictions brought about by the reform and growth itself.

The findings of this chapter are empirically supported by diverse macroeconomic indicators. Firstly, the existence of the accumulation crisis faced by the Chinese state between the mid-1970s and the early 1990s will be empirically proved by the relatively low productivity growth rates, a decade-long stagnating real wage growth rate, and several eruptions of hyper-inflation that resulted in growing socio-political tensions. Secondly, the fact that the growth of China as a world factory was due to the diverse economic policies employed in response to the accumulation crisis (a set of reform policies aimed at creating social conditions more conducive to the exploitation of labour) will be examined with empirical material showing the inter-related policy outcomes such as the world's lowest unit labour costs, and increasingly bigger world market shares for capital operating in China along with the influx of FDI between the mid-1990s and the mid-2000s. Thirdly, the fact that sustained growth on the basis of ever-expanding export markets intensified, rather than countered, the tendency towards overaccumulation crisis will be empirically demonstrated with the constantly falling average capacity utilization rates, chronically high unemployment/underemployment, the increasing number of cases of workers' collective resistance, and growing bad-debt (NPLs) loads in the banking system during the mid-2000s.

2. Historical Context for Post-Mao Reforms

In the early years of the foundation of the People's Republic of China, the ruling Chinese Communist Party (CCP) made it clear that their historical mission was to transform China from a predominantly agrarian economy into a fully developed industrial economy, thereby creating the "material conditions for socialism" (White 1998, pp22-24). For this purpose the state-party at first envisaged a state-led 'mixed economy' focusing on labour-intensive light industry and agriculture. However, a fear among the CCP leadership soon arose that there would be a US-backed invasion from the nationalist stronghold of Taiwan and US troops stationed in South Korea after the war. If the CCP was to defend the hard won gains of the national revolution from American imperialism then it would be necessary to build modern well-equipped armed forces which required heavy industry. Moreover, considering its backwardness and subordinate position within the world division of labour at the time, it was considered that opening the economy to the world market would inevitably involve a

reliance on cheap imports and foreign debts from advanced ‘enemy’ capitalist nations which broke down the Great Wall decades before.

Under these considerations of the CCP, China turned to a semi-autarkic command economy or so-called ‘state capitalism’ with the aim of rapid, crisis-free, and self-reliant industrialization. With the onset of the Soviet-style first five-year economic plan (1952-1956) a programme of nationalisation was launched, bringing almost all trade, commerce and industry under public ownership. As the sole employer of workers, the state determined who worked where and when and at what wages, through its diverse labour bureaus. The surplus product, through the economic plan, was then reinvested mainly into military production and certain strategic heavy industries such as machine-building, metallurgy, petroleum, chemicals and electric power. Through most of the period under Mao more than 30% of national output was devoted to investment, and in the peak year of 1957 this rose to almost 50%, of which three-quarters were taken by heavy industry (White 1998 p.43). Meanwhile, the political support for the CCP regime and social peace in urban areas was secured through the danwei system (a social institution based on interdependence among state-owned enterprises employees, functioning as a mini welfare state providing members with housing, healthcare and pensions) and the ‘iron rice bowl’ policy which ensured the provision of a basic welfare and lifetime employment for the mass of the working population.

Such large surplus products for high levels of investment as well as operating the danwei system were secured through the so-called ‘industry/agriculture price-scissors’ policy, adopted from the Soviet Union. The policy, by holding down the price of agricultural goods relative to that of industrial goods (i.e. by increasing taxes on the rural sector), allowed the state to concentrate resources on centrally planned investment in industry (Chai 2011, pp.110-111). Such adverse terms of trade for agricultural products were imposed on the peasantry through the rural commune system: a politico-administrative authority built with an eye to improving productivity based on collectivization and a more efficient procurement system, as well as to restricting migration to cities where real income was much higher. Also, under the authority of rural communes the under-used labour of the peasants was mobilised both for major infrastructure projects and for the establishment and

running of rural industries producing industrial inputs for agriculture. In the same way as the danwei system, the commune system also provided peasants with a very basic, but wide range of public services including health care, education, and care for the elderly (Li 2008, p.51).

The economic achievements during the era of Mao's semi-autarkic command economy had not been negligible in comparison with economic performance of other developing countries, notwithstanding the years of political and economic disruption during the Great Leap Forward (1958-61) and the Cultural Revolution (1966-69). Indeed, Mao's China had enjoyed high rates of industrial growth (nearly 11% per annum between 1953 and 1978) with agricultural production growing steadily (at 3% per annum gross), which successfully implemented structural change in the economy with industry's share of GNP soaring from 25% in 1949 to nearly 60% in 1977 while avoiding political or economic dependence on foreign countries (Girdner 2004, p.125). Also, with improvements in public education and social welfare services the level of human capital was significantly raised, while realization of full employment provided a certain extent of social and political stability.

Despite these figures of success, at the time of Mao's death (1976) the Maoist model of state capitalism was running out of steam. The most manifest sign of crisis was found in sluggish growth of productivity throughout the national economy. While labour productivity in heavy industry was declining and output increases were sustained merely through ever-larger capital investments and a growing industrial labour force, excessive concentration on heavy industry starved other sectors of funds and retarded their growth in productivity as well (White 2002, p.31; Hart-Landsberg and Burkett 2005, p.38). According to some estimation, by the mid-1970s about 20-25% of urban workers in state industry were employed more than was required for maximum production (Knight and Song 2005, p.34). In rural areas, despite the massive infrastructural projects agricultural output per worker only rose 5% in real terms over the whole period between 1952 and 1978 (Nolan 1990, p.11). While productivity growth was stagnating, the commitment to rapid industrialization and high levels of capital accumulation was able to be maintained at the expense of the working population's standard of living; the per-capita grain available to rural populations barely rose over the twenty-six years, and urban real wages remained

roughly the same, rising on average by only 0.4% per annum over the planning period (Knight and Song 2005, p.31). By the 1970s, many in the leadership of the CCP had come to be sceptical about how far such a state of affairs could continue without triggering political unrest.

One of the most obvious causes of the productivity problem was technical backwardness. China's isolation, particularly following its break with the USSR in 1960, ensured that much of Chinese industry remained technologically backwards. As a result, capital accumulation had been largely extensive, that is, it was expanded by simply building more factories and plants employing more or less the same technology. However, another and more fundamental cause of stagnating productivity growth was the class relations in production process that were based on the law of state-plan (instead of the law of value). Of course, regulating the producers by central planning rather than by the discipline of the market enabled the party leadership to achieve a rapid and self-reliant industrialization from a position of relative underdevelopment. But at the same time it did deprive the state of an effective control over the labour-process using the disciplinary power of money. Although the state could force workers (who themselves had no means of production and subsistence) to turn up to the factory and work for certain hours, with life-long employment guarantees and nationally set wage rates (that is, pre-validation of the value of the labour-force in the labour market) there was no effective ways (neither carrots nor sticks) for factory managers and cadres in the workplace to intensify and rationalize work during working time. Also, the collective integration of large sections of the industrial working class into the party-state through the mediation of the *danwei* system turned out to be a double-edged sword; it enabled the state to promote political acquiescence and often even loyalty, but it also provided workers with a ready source of solidarity against managerial attempts to impose stricter working disciplines (White 1998, p.38).

In the case of the rural communes, while the party cadres could demand corvee-work on local infrastructural projects and impose policy restrictions on agricultural work, peasants were also able to exercise a considerable degree of negative control over the labour process through rural collectives. For agricultural workers, although the state had monopolized the agricultural markets, the level of the total agricultural output (and therefore the surplus that

could be extracted from agriculture) was dependent upon the peasants' productive effort. The collective organization of agricultural work and relatively egalitarian income distribution within the collectives had moreover removed competition among individual peasants as a potential disciplining mechanism that could force the peasants to deliver a higher level of labour effort (Li 2008, p.52). The peasantry manifested their discontent (emerging from the continuing adverse terms of trade between agricultural and industrial goods) in passivity at work and evasion of state levies (by under-reporting production), which led to slow productivity growth in agriculture. As a result, by the mid-1970s the state was finding it increasingly difficult to appropriate surplus products from the peasantry. Indeed, the amount of grain had long stagnated and even begun to decline by that time (White 1998, p.40).

In the 1960s and the 1970s the CCP leadership reacted to these problems of class dominance by emphasizing moral-ideological incentives for higher productivity, that is, self-conscious observation of labour discipline. Maoist party leaders appeared to have thought that so long as workers and peasants realized that the socialist state's control over work is beneficial for their long-term common interest, there would be no difficulty in raising productivity and thus accumulation could proceed at a sustainable pace (Li 2008, p.52). Based on these perceptions, advocates of the Cultural Revolution pointed at so-called 'capitalist roaders' as a disturbance to inspiring 'socialist consciousness'. In line with this ideological strife, the party waged waves of political campaigns orchestrated from above, reasserting hierarchical party control both in production and throughout society. However, as Sheehan describes, workers already knew that the "difficulties they were experiencing were by and large a direct result of national decisions on individual and managements policy", and accordingly "much of their wrath was directed against cadres in factory, government, Party and union positions" (Sheehan quoted in Hart-Landsberg and Burkett 2005, p.36). Not surprisingly, the mass mobilization tactics of the Cultural Revolution turned against the party leadership in a boomerang fashion; the urban population used the opportunity of the officially-sanctioned campaign against 'the capitalist roaders and revisionists' in venting their anger against their political and administrative masters. After brutal crackdown on such defiant movements (e.g. the 'first' Tiananmen incident of April 5, 1976), popular attitudes to the party changed to cynicism,

apathy or active opposition while “ideological principles and political institutions lost much of their former meaning and authority based on revolutionary heritage” (Hart-Landsberg and Burkett 2005, pp.38-39).

The international context in the 1970s also affected the legitimacy of the CCP leadership. The legitimacy of the CCP rule was partly based on the nationalist slogan that its ‘socialist’ form of national economy was superior to ‘capitalist’ others, thus ultimately making China a ‘rich and strong’ country compared to enemy states such as Japan and Taiwan. However, the reality of the 1960s and 1970s was increasingly putting the ‘socialist’ leadership in the shade. China was falling far behind advanced nations. For example, China’s GNP that had accounted for 4.7% of the total world GNP in 1955 halved to 2.5% in 1980. In 1955 China’s GNP had equalled Japan’s, but it became only one fourth of Japan’s by 1980 (Li 1989).

In every aspect, Chinese class relations were clearly in crisis by the time of Mao’s death in 1976. The crisis, together with the socialist legacy of social-material infrastructure, became the basis upon which the reform process of what David Harvey calls ‘neoliberalism with Chinese characteristics’ gathered momentum. Although there was neither clear vision nor predetermined trajectory of reform, for the workers and peasants reform meant a promise for higher incomes, greater consumer choice and personal freedom, while for the party leaders it was considered a useful tool for restoring the battered political fortunes of the CCP without confronting workers and peasants directly (White 1993, p.41).

3. First Phase of Reform and its Limitations

The political significance of the productivity issue was apparent to the post-Mao leadership; slow productivity growth would certainly undermine the legitimacy and credibility of CCP rules. Deng Xiaoping (1983, p.215) made it clear that what China needed was a socialism that could exceed capitalism in terms of both the speed of growth and economic efficiency. Without high productivity, Deng pointed out socialism would be nothing but boasting.

In the early years of reform, the main cause of stagnated productivity growth was

considered to lie in the overly centralized decision making system and the backwardness of technology (Hart-Landsberg and Burkett 2005). Deng Xiaoping pointed to the economic management power that was too concentrated at the central government level and the resultant lack of incentives as a critical factor discouraging localities, enterprises and workers to improve productivity and efficiency of economic activities (Deng 1993, pp.150-152). Accordingly, the main strategy employed by the new reformist CCP leadership was to introduce market elements into the planning system as a means of decentralization (i.e. devolution of economic decision-making power to local governments and enterprises). Also, arguing that foreign investment would bring new technology and teach advanced management, the state launched the so-called 'open door' policy, promoting foreign trade.

Initially it appeared the reform projects succeeded brilliantly. During 1980-89, China's GDP grew at an annual average rate of 9.7%, which was the world's highest rate of growth. The average real wage of urban workers soared to 9.4% per annum between 1984 and 1986 with unemployment rates remaining quite low (Knight and Song 2005, pp.22-25). However, it soon turned out the surprising growth was based on monetary expansion rather than improved productivity. Typical fallouts of such fictitious growth soon followed: uncontrollable inflation, accumulation of trade and budget deficits, a run on the banks and ultimately serious political unrest. Among others, the most underlying cause of the derailed reform was the reformist CCP leadership's reluctance to enforce negative incentives (e.g. wage cuts, unemployment and bankruptcy) for productivity growth in fear of losing political support. Put differently, there was no draconian financial discipline imposed upon workers and enterprises.

This section first presents a brief outline of economic policy changes during the first stage of reform, and then discusses the limitations and contradictions of such policies in creating a condition conducive to productivity growth. Examining the trajectory of this period's reform is important, as the following round of reform in the 1990s was based on a lesson learned from this era.

3.1. Outline of Reform in Each Economic Field

3.1.1. Reform of State-Owned Enterprises

Following experiments in various areas around the country, in 1984 the party introduced new provisions of radical reform, emphasizing the utility of market forces. Under the new provisions, any state-owned enterprises (SOEs) that had exceeded their production quotas were allowed to sell their products outside the state plan at “market prices” (above the state-set “plan prices”), and to use that profit in re-investing in production or in providing workers and managers with bonuses and collective welfare. Through this policy called the Dual Track System or policies of the ‘planned commodity economy’, the party-state was supposed to take advantage of market forces without abandoning the alleged advantages of the planning system (Lawrence et al 2000, p.120). In 1984 the government permitted the market track for all industrial goods with the market price range restricted to within 20% of planned prices (the restriction was soon removed in the following year) (Wu and Zhao 1987). As a result of this policy, the share of transactions at ‘plan prices’, in terms of output value, fell from 100% in the pre-reform years to 64% in 1985 and further to 45% in 1990 (Xu 1988, p. 292). Alongside this introduction of the dual track system, several complementary measures were also introduced; SOEs were allowed to hire middle-level administrative or technical staff, and to establish direct links with suppliers at their discretion; a profit tax system was introduced to replace profit remittance. However, SOEs were not yet allowed to freely recruit or dismiss workers according to business considerations, although newly hired workers from 1985 were placed under a labour contract system without lifetime employment guaranteed.

Together with a set of SOE reforms, the state strongly encouraged the growth of other forms of enterprise such as private firms and urban collective enterprises. This was a pragmatic response to the unprecedented problem of "people without jobs" and "jobs without people" at that time; the late 1970s and early 1980s saw a growing problem of urban employment (with an estimated unemployed urban youth of 10 to 25 million) concurrently with a severe lack of basic urban services and consumer goods (very limited rationed quantities) (Tang and Ma 1985, p.614). It was considered that a rapid development of those forms of non-state firms would provide both jobs and consumer goods at the same time. In that consideration, many advantages were given to the non-state

enterprises. They could benefit from very low rates of taxation as well as completely free labour markets; they were not forced to employ job seekers according to a plan; they did not need to provide job protections or benefits; they were even allowed to use a piece-wage system at their own discretion (Tang and Ma 1985, p.618). In response to these advantages given, that is, prospective profit opportunities, local governments rushed to organise such enterprises under their jurisdiction. The introduction of fiscal decentralization policy, granting autonomy to local governments in the promotion of economic growth and in the use of fiscal residuals for their own bonuses, strongly incentivized local authorities to invest in the profitable sector. As a result, between 1978 and 1994, employment in the non-state sector soared by 318.8%, whereas employment in SOEs increased by only 50.5% (China Labour Bulletin 2007).

3.1.2. Reform of Rural Industry

In 1980, fundamental reforms of agricultural policy were implemented on a national scale. Firstly, agricultural collectives were dismantled and the state drew up contracts for the purchase of staple crops with each individual peasant household. Secondly, the peasant household was set free to sell in local markets anything they had produced beyond the production quotas specified in their contracts. In addition, in order to give an incentive to increase production, plan prices for compulsory grain deliveries were raised by 20% (with a 50% bonus for grain delivered above quotas) (Cheng 2002, p.61). With the help of the infrastructure built during the collective era, the effect of such an incentive and lifting of restrictions was more than immediate; there was no more passivity at work or evasion of state levies by under-reporting production. Indeed, there was a substantial spurt in the growth of agricultural output and peasants' incomes.

Meanwhile, this growing productivity combined with the limited arable land per household released the rural population from their land to work for 'industries'. The surplus labour force was then absorbed by the former communes, now renamed 'township or village' authorities that established township and village enterprises (TVEs) mainly producing intermediate and consumer goods by means of the former communes' industrial assets. In this earlier stage, their labour intensive orientation enabled TVEs to absorb more than 60

million rural workers (or about 20% of rural employment) by 1988. In the same way as urban areas, local governments delegated the responsibility (financial and operational autonomy) to those firms and were eager to invest in TVEs. The effect on rural areas was quite impressive. The gross value of rural output, including that produced by the TVEs, grew by 9% per annum while per capita rural incomes doubled over the 1978-84 period (Hart-Landsberg and Burkett 2005, p.45).

3.1.3. Reform of the Foreign Trade System

Unlike earlier periods during which China was committed to achieving self-sufficiency, under Deng Xiaoping foreign trade was regarded as an important source of investment funds and modern technology. Accordingly, reformers went ahead with diverse policies, accepting foreign credit from both governmental and private sources, encouraging FDI through wholly-foreign-owned or joint ventures, and establishing special economic zones (SEZs) and ‘Open Cities’ to foster freer foreign participation in the economy (White 1993, p.48). The effect of open policies was immediate; while virtually the entire coastal area was designated as SEZs and Open Cities by the mid-1980s, the total value of foreign trade/GDP ratio rapidly increased from 15% in 1980 to 21% in 1984 and further to 35% in 1986 (AMRC 2007). Encouraged by the impressive growth of trade and investment, in 1986 the government in turn introduced new and more liberal regulations for foreign investment. These included lowering taxes and other business costs, giving foreign companies more freedom to hire and fire workers, and making it easier for them to acquire foreign exchange. In 1987, Zhao Ziyang, then secretary general of the CCP, declared that China “should enter the world economic arena more boldly” and that its aim should be to develop an “export-oriented economy” (Hart-Landsberg and Burkett 2005, p.49). The basic strategy was building a reciprocal process in which foreign investors would benefit from China’s socio-economic infrastructure including a cheap and well-disciplined workforce while China would benefit from the advanced technology embodied in modern plant and machinery alongside the technical know-how and management skills of foreign investors.

3.1.4. Reform of the Banking System

During the pre-reform era, the People's Bank of China (PBC), the sole monetary authority of the country, was merely an administrative agent of the state's planning system. The role of the banking system was just to provide the state with needed funds. As Deng Xiaoping described it, the banks in the pre-reform era were not banks, but accounting offices, cashiers, and money issuing companies (Deng 1993, p.193). To proceed with the reform process, it was more than necessary for the state to undertake banking system reform. First, the role of commercial banks was required to be established as the burgeoning economy was creating a huge demand for funds and credits while profits retained by enterprises and rising income of individuals constituted huge sources of funds at the same time. Second, the revitalized economy also called for competent and reliable monetary management. As elements of "commodity economy" had already been introduced deep into the country's economic life, an elaborate management of money by a central authority became necessary to curb inflation and disorder (Ji 2006, p.107).

Against this backdrop, the government in 1983 passed a resolution to separate central banking from commercial banking functions. Accordingly, the PBC no longer engaged in industrial and commercial credit activities or urban and rural savings businesses, and instead concentrated its resources on performing central banking functions (CSC 1983). Its commercial banking business was taken over by four state-owned specialized banks (SOBs) and several regional banks including non-bank financial institutions, offering day-to-day financing to firms and dealing with saving deposits. Now the PBC began to perform standard central bank responsibilities such as issuing currency, regulating interest rates, supervising foreign exchange affairs and setting reserve ratio for the commercial banks. SOBs also underwent "enterprisation", transforming them from a type of state agency into relatively independent commercial entities. The profit retention system was applied to SOBs as to many other SOEs; the banks were allowed to retain the agreed proportion of after-tax profits, while bank branches were granted greater autonomy with regards to business operations and financial affairs.

3.2. Limitations of Reform

3.2.1. Problem of SOEs

The immediate problem faced by the reform process was that the productivity of most SOEs still remained at a very low level; they failed to productively organize state workers (who still accounted for more than 70% of all urban workers and 42% of the whole working population by the late 1980s) (Cai et al 2008). This undermined the whole picture of reform because the overall reform processes, centered on the provision of incentive bonuses for agricultural and consumer oriented industries, were premised on the concomitant growth of productivity in state-running heavy industries which had so far been dependent upon subsidies from the former sectors. It appeared the reformist party leadership at first envisaged state workers' pre-existing living standard could be financed by the increased productivity and profits of SOEs that would be responsive to positive incentives in the same way as the farmers' case. This meant, in other words, unless SOEs' productivity growth was sufficient, state workers should be willing to abandon their existing level of real wages. In reality, however, neither productivity growth nor wage-benefit cuts were realized. Despite the workers lacking certain formal or legal rights to form independent unions and to strike, with free housing, medical care, education and foods for families as well as 'iron' job security provided by the danwei system of SOEs, managers (lacking effective disciplinary power over workers) found it difficult to impose new working practices conducive to improving productivity (Andreas 2008). Further, with the paternalistic relationships within the danwei remaining pervasive, managers used their newly given discretion over company funds and wage rates just to keep workers' real wages from falling, thus buying obedience and compliance from the workers (Walder 1994, pp. 297-323). Indeed, new performance-based pay initiatives were rarely implemented; if salaries for professionals were to be raised, other workers in the factories tended to demand a similar wage increase, limiting their output until they received one (Weil 1996, p.34). Without any compelling profit motives and market competition (without threat to their own careers), managers tended to accommodate workers' pressures rather than put pressure on them. In addition, the forced absorption of the unskilled youths according to the pre-determined state plan greatly compounded the existing problem of excessive labour power rooted in many SOEs for a long time. Indeed, the annual addition of more than 2.5 million new workers seriously affected the normal operation and management of factories and led to a steady reduction of their productivity and profits (Knight and Song 2005).

While most SOEs were raising their prices, passing their costs to consumers, to avoid an even more rapid decline in profitability, the state in an attempt to head off worker opposition to the reforms began providing additional funds to inefficient state enterprises so that they could raise wages. In 1988 while more than half of SOEs were running at a loss, they were recipients of subsidies amounting to nearly \$11 billion—a figure representing about 50 % of the total earnings of China’s industrial enterprises (Southerland 1988, p.5), and the deficits were financed to an increasing extent by state-owned banks’ credits. Despite their transformation into profit-orientated commercial corporations, SOBs passively accommodated the credit demands not only of SOEs but also of local governments (running urban collectives and TVEs) that were eager to expand industrial activities in pursuit of profits. There was neither a rigorous loan screening in lending activities, nor the exertion of creditors’ power to “restrict credit to loss-making enterprises and to require their restructuring”, that is, any threat of bankruptcy to enterprise managers or local authorities (Bowles and White 1993, p.488). Not surprisingly such generous subsidies for SOEs and local firms’ over-investment based on overexpansion of credit created a massive excess demand for goods and services, ultimately triggering inflation and economic instability. After rising at an annual rate of approximately 8% over the years 1985-87, prices soared by more than 18% in both 1988 and 1989. Prices jumped even more, by as much as 30%, in Beijing and other big cities (Hart-Landsberg and Burkett 2005, p.59).

In sum, the state expected SOEs to operate like profit-oriented corporations responsible for their gains and losses in competition with other forms of enterprises, while at the same time it prevented them from doing so by imposing political missions (i.e. the financial burden of supporting unproductive state workers) upon them. The contradictory dual role of SOEs was able to be assumed only through subsidies for losses in the form of easy credit. SOEs did not seriously care about cost efficiency and profitability because they would not be held responsible for their losses anyway. The financial shortfalls of their own operations were supposed to be subsidized (socialized) by the state or higher prices of their commodities in the market.

3.2.2. Problem of the Banking System

Under the new banking system, credit planning was a major monetary instrument of the PBC (Ji 2006). The PBC set credit/monetary targets for commercial banks by using instruments such as credit ceilings and quantity rationing to control money supply. This role of the central bank was supposed to be executed by local PBC branches regulating local banks according to centrally-set targets. In reality, however, due to interference by local administrative authorities local PBC branches tended to compromise macroeconomic objectives for local developmental goals. The core problem was that local PBC branches were subject to the 'dual leadership' of both the PBC head-office and local governments (Ji 2006, pp.108-111). Whereas officially PBC branches were only accountable to the head-office, it was the provincial governments that had the authority to appoint branch managers (in consultation with the head-office). As local authorities were more incentivized than ever to pursue local growth following fiscal decentralization, local branches of the banking regulatory body were oriented by local governments to serve local developmental or entrepreneurial goals. This in turn resulted in loss of control over money supply and credit over-extension.

While the PBC could not in this way assume the role of independent central bank, commercialized state-owned banks also did not act like fully profit-oriented commercial entities; rather, they continued to be required to provide part of the 'policy loans' to SOEs. It was estimated that total outstanding policy loans amounted to one-third of total outstanding loans extended through the banking system at the beginning of the 1990s (Mehran et al 1996). Although SOEs and SOBs were supposed to act as corporate entities with independent accounting, in practice the 'soft budget constraint' still existed (Kornai 1986, pp.3-10). Under state ownership, both creditors' rights and debtors' responsibilities were not clearly stipulated. The local government, which represented the state at the local level, was still able to use administrative power to allocate resources among SOEs and SOBs, albeit indirectly rather than through the budget system. For Bank branches, it was rational to conform to the request of local authorities in making loans, because the economic welfare of their specific branches was dependent upon the local governments' decisions whereas the risks and losses related to lending activities as a whole would be

ultimately shouldered by the state. In principle, commercial banks should limit their lending volume within the “credit quota” set by the central bank, thereby maintaining the overall scale of credit and loans the central bank hoped to achieve. However, as the actual enforcement of this quota were being implemented by the local PBC branches where local governments already exerted their influence, ‘extra’ credit quota was easily made available to local SOBs. It follows that the state’s credit plan was actually set by such bottom-up pressure from local production units which did not pursue the overall interest of the national economy.

In sum, the entrepreneurial behaviour of local governments and their collaboration with state banking institutions led to over-expansions of credit. As local governments competed with each other to set up and duplicate projects, production lines, factories and shops, and as banks supplied funds to support this investment rush, the economy soon became overheated nationwide. In the second half of 1984, for example, money supply in terms of M1³¹ increased by about 40% in the second half of the year (Ji 2006, p.140). Inflationary pressure was mounting. The central bank, however, was not effective and timely in taking adjustment measures to curb overheated microeconomic activities and stabilize macroeconomic environment. One important cause for this was the PBC local branches’ tendency to meet local governments’ needs rather than follow the orders of the bank headquarters. With bank activities integrated into the state plan, the demarcation between banks and state finance remained blurred, which tended to perpetuate banks’ reliance upon the state and gave rise to irresponsible lending behaviour.

3.2.3. Problem of Foreign Trade

What was not changed during this period was the overvalued currency (named RMB-rinminbi or yuan). Although the state substantially devalued RMB several times³² to boost export-oriented industries, a burst of domestic inflation during the whole period ended up offsetting the effectiveness of devaluations, making ‘real’ devaluation negligible

³¹ In China M1 refers to money in circulation and demand deposit by enterprises.

³² Official rate of RMB 1.5 to the dollar in 1980 rose to RMB 2.8 in 1985 and further to RMB 3.7 in 1986 (McKinnon and Ono 1997).

(McKinnon and Ono 1997, chs. 6 and 7). Specifically, consumer prices rising at 12% per annum along with labour compensation per worker soaring at about 13% annually in BMB terms completely offset the positive effect of currency value alternation (depreciating by an average of 8% a year in the 1980s) on export competitiveness (i.e. international relative prices of Chinese commodities) (Hart-Landsberg and Burkett 2005, p.126; Ceglowski and Golub 2007, p.605-6).

While real exchange rates remained relatively high, exporters would incur structural losses while importers would find trading highly profitable in domestic currency. Under these circumstances it was unrealistic to pursue 'export-oriented development' policy. Faced with this problem, the state tried to change the environment (to lower the real cost of production within China) by means of a kind of import substitution strategy; obtaining more foreign exchange by subsidizing loss-making exporters, and then financing import of advanced technology and machinery conducive to improving productivity. The state expected local governments and associated enterprises which gained access to foreign trade in the SEZs to implement this strategy.

In reality, however, this strategy ended up producing an unintended effect nationwide. Since the central government continued to provide provincial governments with fiscal subsidies on exports based on an estimation of the region's average export costs, provincial governments found it only logical to maximize this part of earnings so as to create a favourable fiscal environment for their own regions. Rather than pressing producers to reduce export costs, they tended to encourage the firms to raise their export costs. In this way, their provinces or regions was able to obtain maximum amounts of state subsidies in domestic currency on top of the portion of foreign exchange they were allowed to retain. As a result, total amount of state subsidies mounted; in 1988 the aggregate amount of export subsidies reached 7 billion yuan, equal to 4% of total export value (World Bank 1994, p.27). Moreover, as an increasing number of local enterprises gained access to foreign trade, competition in the procurement market intensified. Within each province, prices of exportable goods and raw materials continued to be kept at a high level as numerous trading companies and industrial enterprises were now eager to acquire the goods, export them and earn foreign exchange (Yin 1998, p.61). Domestic prices for such

goods were driven high, as different localities and departments, port cities and inland provinces competed against each other. In the international market, the situation was just the opposite: enterprises with direct trading rights were in price wars against each other to get their goods sold. The result was “raised procurement prices at home, slashed prices abroad, outflows of profits, and reduced bargaining power with foreigners on the part of the state” (Ji 2006, p.59; Shirk 1994, p.49). All foreign trading companies’ losses were to be compensated by state subsidies. In 1986 alone, their losses financed by the central government amounted to about RMB 25 billion, more than 2% of China’s GNP (World Bank 1994, p.26).

A more serious problem was the uncurbed internal “importing” activities. Indifferent to the cost efficiency and profitability of foreign trade operations, enterprises and local governments were not incentivized to import advanced technology and machinery for improving productivity. Rather, the geographical particularistic nature of SEZs incentivized them to engage in “inward-looking” transactions, accommodating the surge in domestic demand for foreign commodities in particular luxury consumer goods (officially reported as “materials and technology needed for foreign-invested facilities”) (Yeung and Chu 1998). The most notorious case was the Hainan Scandal in 1985. As an open economic area, Hainan was granted the freedom of arranging its own imports. Officials in Hainan made huge profits by reselling imported vehicles to provinces where imports of automobiles were not allowed. By the time their misconduct was discovered by the central government, they had already spent \$1 billion importing automobiles and other consumer durables (Xiao 1996, p.76-78). Provincial governments and companies’ gains in foreign trade, consequently, came at the losses of the state. With sizable trade deficits (\$14.9 billion in 1985 and \$12.0 billion in 1986) by frenzied import activities, China’s foreign exchange reserve was severely depleted, while domestic inflation was exacerbated (Hart-Landsberg and Burkett 2005, p.57-9).

It is not surprising the environment that was not conducive to export also led to stagnating FDI inflows. Despite a number of preferential policies were used by both central and local governments of SEZs, the share of FDI in private investment declined from 15% in 1985 to 10% in 1988 (ADB 1990). Up until 1992 most foreign investment in China had been

limited to small-medium scale investments originating from the overseas Chinese in Hong Kong and Taiwan. Throughout the 1980s the flow of FDI was largely towards NICs where relatively more stable and productive class relations were maintained, and neither rampant inflation, exchange controls nor any 'restrictive' terms (e.g. requiring a technology transfer) on FDI existed like in China.

3.2.4. Inflation and Political Crisis

Meanwhile, growing problems in agriculture began producing a serious political and economic crisis. By the mid-1980s the spurt of agricultural production began to peter out. Although the reforms gave peasants an incentive to increase production, both central and local governments did little to increase the actual productive capacity of agriculture. Indeed, with the drive to expand rural industries, the township and village authorities did not pay attention to maintaining the roads and irrigation projects that had been constructed in the pre-reform era. Also, the breakup of the collectives meant that the advantages of mechanisation and modern farming methods dependent on large-scale collective farming were lost.

With decreasing productivity in agriculture, higher food prices (e.g. a 41% rise in the price of tortillas) began fuelling the growing unrest amongst the urban workers who were already being squeezed by the rising price of necessities, whilst peasants were caught in a price squeeze with the cost of inputs such as fertilizer increasing faster than the prices of agricultural goods they produced (Girdner 2004, p.130). The average annual growth of real wage for urban workers plummeted from 9.4% during the period of 1984-86 to -1.6% between 1987 and 1989. Agricultural incomes, which had grown by 15% per year during 1978-84, rose by 5% annually over 1985-88, and by mere 2% in 1989-91 (AMRC 2007). Ultimately, attempts at raising procurement prices to stimulate greater agricultural production only served to exacerbate the problems caused by inflation.

As a result of ever mounting inflationary pressure, waves of panic buying swept across the country. Beginning in May 1988 run on banks happened in major cities such as Nanjing and Hangzhou. Bank savings deposit, which had been growing at an annual rate of 30%

during the 1980s, fell to negative growth in August 1988 whereas average retail price nationwide rose by 18.5% (Zhao and Guo 1998). Parallel to this economic crisis, the party-state form also entered into crisis. Following the events at Tiananmen Square in June 1989, Zhao Ziyang - who had been the chief proponent of reforms - was removed from office and the reform process was brought to an abrupt halt. The money supply was tightened and bank loans were reduced. The rights to set and adjust prices that enterprises had just gained were revoked. The old practice under the planning system was reinforced. And the economy went into a deep recession in 1989 with urban collectives and rural TVEs that relied heavily on bank loans went into bankruptcy in rows.

4. Second Phase of Reform

In the first stage of reform, the foundation of exponential economic growth was not an enhanced productivity but undisciplined lending activities. It was the banks directed by local governments with tacit permission of the party-state that shouldered the financial burdens resulting from SOEs' reluctance and inability to undergo politically unpopular restructuring. This subordination of the commercial to the political brought about a problem in foreign trade sector as well. Rather than achieving price competitiveness of exports by lowering relative unit labour costs, enterprises that were free from regulations yet still subsidized by the state just focused on arbitrage (interprovincial trading). Unsurprisingly, the result of these activities was the accumulation of fiscal and trade deficits together with uncontrollable inflation which ultimately came to destabilise the entire system.

In the second stage of the reform, thus, the state focused attention on restructuring SOEs. On the one hand, the government allowed banks to cut the tie with the state and loss-making SOEs, while, on the other hand, taking the measures to shed the entrenched state workers (who had still constituted the majority of the working population by the early 1990s). For attracting foreign investment, more radical policies were adopted under the perception that it is an improved productivity (lower relative unit labour costs) and profitability that boosts FDI (rather than vice versa). Ultimately the CCP leadership was at that time determined to risk a degree of political instability inherent in the restructuring of class relations. It embarked on a draconian policy of labour-shedding, transferring

unemployment from the unproductive SOEs and rural farms (where it was disguised) to the streets (where it was open) in the hope that the non-state sector and FDI would absorb the redundant workers while competition in labour market would lower real wages (Song and Knight 2005).

The ‘success story’ of China’s stunning growth as a result of the reform in this period is now well known fact. The world-lowest relative unit labour costs in China attracted the world-largest amount of foreign direct investment by creating opportunities for surplus profits, and as a ‘world factory’ China came to take the largest share of world markets for almost all sorts of commodities. But it should be noted that at the same time China was facing serious contradictions created by the reform process itself; notably ever-growing problems of overcapacity, unemployment and intensified resistance of workers which could hardly be solved without involving either political crises or potential productivity losses. And this growing possibility of crisis has made the state rely ever more on the US’ debt-financed expansion which has in large part constituted the global condition through which the Chinese economy has grown.

The remainder of this section analyses how the Chinese state organised social relations conducive to lowering relative unit labour costs via diverse economic policies. These analyses are followed by an examination on the contradictions created by the reform process itself.

4.1. Restructuring of Enterprises Ownership

It was pointed out by reformist policy makers that the problem of the first stage of reform lay mainly in public ownership of SOEs (and some urban collectives and TVEs operated by local governments). Without any debtors’ responsibility and the threat of bankruptcy, for managers, whose career as danwei cadres was not dependent upon productivity levels in factories, it was not necessary to utilize resources with great prudence and in a more economically ‘rational’ fashion. In other words, they were not fully pressurized to make profitability a primary goal by confronting workers (their danwei ‘comrades’) who might well refuse to abandon the long-cherished iron rice bowl. Indeed, the economic

performance of the majority of SOEs remained at a very low level. For example, in Zhucheng, Shandong province, 103 of the 150 SOEs were running at a loss at the end of 1992, with total losses amounting to 147 million yuan – equivalent to the municipal government's entire revenue for 18 months (Garnaut et al 2006, p.37). Of course, the party-state could directly repress managers and workers by means of administrative measures, but this, just as was the case in the Maoist era, would be costly in terms of the political legitimacy of the reformist CCP leadership as well as productivity levels affected by passive resistance in workplace.

Against this backdrop, the state took a decisive step in pushing SOEs outside the ambit of the political system towards the economic realm (where property owners as equal citizens interact) by turning over state assets and factories in townships and villages to private hands. The privatization projects were supported by provincial-local party cadres “whose ability to pursue their private gains [had] been much enhanced by the material resources provided by sweeping fiscal decentralization” during the previous reform process (Cheng 1999). Their transformation into new property-owners (so-called ‘red capitalists’) was also legitimated by Deng’s newly pronounced reform direction: to develop the “socialist market economy”, “a few have to get rich first,” and “to get rich is glorious” (Girdner 2004, p.125; Meisner 1999, pp.516-18).

In actuality, it was during the first stage of reform that the SOE ownership reforms were initiated and carried out³³. But the first reform projects were limited to a small number of SOEs with strict regulations on the process unchanged. Further, between 1988 and 1992, the projects were almost withdrawn over concerns about the social and economic impact of the reform process as a whole. It was not until Deng Xiaoping’s now famous Southern Tour in early 1992 that the SOE reform projects got back on track. Deng called for an intensification of reform and urged officials to think less about ideological correctness and

³³ The first SOE change of ownership occurred in 1986, when three people (high-ranking party cadres) put up 34,000 yuan as collateral to lease the Wuhan Motor Engine Factory. In the same year, private shareholding was introduced in three Guangzhou based SOEs where the employees bought 30% of their firms’ shares. In May 1988, the State Council issued regulations on the leasing of small SOEs, which officially established the legal grounds for this practice. In 1990 and 1991 respectively, the Shenzhen Stock Exchange and the Shanghai Stock Exchange opened, enabling a limited number of SOEs to issue shares to the public.

more about economic development. In Deng's own words: "it doesn't matter if a cat is black or white, as long as it catches mice, it is a good cat." The top advisor to the party interpreted Deng's comments as meaning that the market, as such, has no political attributes, but is "neutral," having the ability to serve either socialism or capitalism (Girdner 2004, p.138).

In response to Deng's urge, in July 1992, the government issued regulations allowing inefficient, under-performing enterprises to completely overhaul their structure and to be sold to the public or the employees. In line with privatization drives, policies that had limited the size of private firms and restricted foreign investment were lifted and state officials were encouraged to promote both (Andreas 2008). In 1995, ownership reform was significantly accelerated when the central government renounced the ownership of SOEs except for 500-1000 large state firms of key strategic industries. By 1998, a national survey showed that 50% of China's 87,000 industrial SOEs had restructured or planned to do so. Among the restructured firms, 60-70% had been partially or fully privatized. By the end of 2001, 86% of all SOEs had been restructured and about 70% had been partially or fully privatized. As a result, the number of SOEs fell from 64,737 in 1998 to 27,477 in 2005 (Garnaut et al 2006, pp.33-65). The party's push was not limited to SOEs; local governments began a rapid sell off of debt-ridden urban collectives and TVEs in the mid-1990s. The sales were expected to generate desperately needed local government revenues, and at the same time to create potentially profitable investment opportunities for cadres (managers) and foreign investors. Since then, most TVEs and collective enterprises were privatized, and TVEs owned by local states came to employ only 2% of workforce in 2003 while privatized TVEs were employing 16% (Naughton 2007, p. 182).

As the public sector shrunk, the private sector expanded. The number of private enterprises increased from 440,000 in 1996 to 1.32 million in 2001, from 16.9% of all enterprises to 43.7% (NBSC 2003). As a result, the public sector's share of all industrial output dropped from 73.4% in 1983 to only 11.1% in 2003, while the share of the urban workers employed in the public sector plunged from nearly 82% to about 27% between 1991 and 2005 (Andreas 2008, China Labour Bulletin 2007). Ironically, the more private enterprises grew, the more remaining SOEs came under pressures to restructure as the former free from

obligations of social welfare and employment increasingly undermined the latter's profitability and monopoly power. As competitive pressure on state firms from private sectors grew, deeper and more painful reforms of China's beleaguered state firms were justified (Gallagher 2005, p.154).

4.2. Restructuring of Labour Management

4.2.1. Breaking the Iron Rice Bowl

As part of the state's effort to remake SOEs into "modern enterprises" which can be efficient and profitable enough to compete with those in the non-state sector, or to be saleable to private investors at higher prices, a series of measures were implemented to reduce the historical burden of SOEs, and the key to the measures was the process of transforming a (inflexible) labour system into a (flexible) labour market.

First, in the early 1990s the planning quota for recruitment by state enterprises was abolished, and they were allowed to recruit their own employees according to their management plan (Knight and Song 2005, p.23). But what mattered more than freedom to hire was freedom to fire workers. Central to this issue was the unproductive 'iron rice bowl' cherished by most existing state workers. Clearly, it was not going to be possible for SOEs to be 'efficient' if they had to continue to provide lifetime employment and the danwei-based comprehensive welfare for workers that did not contribute to productivity. The new reform projects, thus, focused attention on the introduction of a universal labour contract system and the establishment of a societal-level safety net that would substitute the function of the danwei.

A system of labour contracts of a limited duration introduced in 1985 was not applied to the existing workers and by 1988 only 6% of state workers were covered (Greenfield and Leung 1997 p.99). On the contrary, the Labour Law of 1994 required all employees to have such contracts, and they were thus extended to then permanent workers, re-categorising them as fixed term contract workers (Hart-Landsberg and Burkett 2005). According to the law, labour contracts would stipulate the legal rights and responsibilities for both parties over a specified period of time. In theory, contracts meant voluntary

bilateral choices: managers were to gain a new license to dismiss workers for the purpose of productivity gains and higher profits while workers were supposed to enjoy a new freedom to switch jobs for higher wages. However, in practice labour contracts accentuated managerial power at the expense of workers' interests, particularly those in less competitive and older industries. The majority of state workers fell vulnerable to the new pressures from managers because they lacked the market capacity required to change to non-state employment in competition with millions of young and well-disciplined migrant workers flooding into the cities. The more bankrupt and inefficient the enterprise, the more desperately dependent were its workers. To them, labour contracts meant managers' unfettered power to discipline, if not dismiss, them.

The introduction of the universal labour contract system was accompanied by the establishment of a societal-level safety net as a substitute for the danwei system. The new principles of social protection were that the employer, the employee, and the state should share financial responsibility, that the funds should be pooled and administered by provincial or local social insurance departments, and that the system should be extendable to all urban workers and not just danwei members (Lee 1999, pp.47-8). Reforms concerning old age pensions, medical care, unemployment, and maternity benefits etc. were implemented or planned according to this principle; any employee covered by the scheme, regardless of the firms' ownership forms, was supposedly able to claim reimbursement of at least a part of the cost of public services. In the case of housing provisions, housing benefits in the form of a cash allowance would be paid out of housing funds collected from the local government, the enterprise and the individual worker. With this allowance, workers could buy or rent low-cost accommodation to be constructed by local governments. Reformers interpreted such changes as "severing the ties that bind workers' lives to leaders of state danwei" (Karmel 1996, pp. 111-133). In theory, 'severing the ties' meant freedom of both SOEs and state workers. SOEs would be released from the financial duty for providing welfare and housing for all danwei members; they would now become liable only for workers *employed* by them. At the same time, state workers were released from the forced dependence on any specific danwei in terms of public service and housing; as long as employed by some form of enterprise they, as costumers, were supposedly able to purchase any public services outside of the danwei, and if they had

enough money they would be able to buy and live in better houses in any places of their choosing. Although reformers emphasized the newly given workers freedom from danwei, what was actually realized was SOEs' freedom from the danwei burden (which accounted for 50% of their total wage bill) (Lee 1999, p.47). In practice, as the coverage rates of enterprise other than large and medium SOEs remained less than 10% throughout the 1990s, the insurance programmes virtually meant that if workers move to jobs in the non-state sector, they would be much less likely to gain any insurance and welfare benefits (Lee 1999, p.48). It followed that the new social protection system in effect ended up playing a role in pushing state workers out of the social safety net.

Among other measures, what most contributed to facilitating massive lay-offs of SOE workers was a particular scheme - '*xiagang*' - that was introduced in 1994 (Knight and Song 2005, p.21). Workers with *xiagang* (meaning 'to step down from one's post') status were categorized as still employed by the SOEs, paid 60% of their wages and offered three years of recruitment training in state training centres. *Xiagang* status lasted for three years and workers who could not find jobs within those years became officially unemployed (who then become eligible for unemployment benefits for two years).³⁴ The *xiagang* policy did facilitate 'optimization' of employment in SOEs; by the end of 2002 approximately 34 million workers (60% of all SOE workers) were sacked in the form of *xiagang* (Zhang 2003). As a result of such mass lay-offs, SOEs' contribution to total employment in the manufacturing sector continued to decrease from 44% in 1980 to a mere 14.8% in 2001 and slightly higher than 10% in 2007 (China Statistical Yearbook 2002, 2011).

The problem was that despite the massive lay-offs, labour productivity of SOEs still lagged behind the non-state enterprises. In 2001, labour productivity of SOEs in the manufacturing sector accounted for only 71% of private producers, suggesting that about one-third of a million of the SOE workers in the sector could be seen as redundant if productivity of non SOEs is used as benchmark (Brooks and Tao 2003, p.17). This pressure of the productivity race made the massive lay-offs in SOEs' an endless mission,

³⁴ These benefits of *xiagang* status were only in theory. In reality, many *xiagang* workers were left without any protection as the firms frequently overrode the entitlement and local authorities, which were supposed to share the cost, did not have sufficient budgets for it. As a result, many of the *xiagang* workers ended up in informal employment (Chang 2012, p.30).

because the laid-off workers, left in the labour market as a ‘new informal class’, have turned themselves into an even cheaper and more flexible workforce for private firms (Solinger 2004, p. 51).

4.2.2. Legalization of labour relations

The state’s attempts to break the iron rice bowl entailed “a spectacular increase in disputes that began in the early 1990s” (Pringle 2002). According to official statistics, collective action including strikes increased nine fold from 752 cases in 1992 to 6,767 cases in 1998 (Pringle 2002; Hart-Lansberg and Burkett 2005, p.83). Many of those laid-off organised protests over their forced redundancy and insufficient compensation, demanding a new economic compensation package or new employment within the SOEs from management and local government (China Labour Bulletin 2007). Collective organised protests by laid-off workers usually took the form of sit-ins, assembly outside government offices, petitioning to higher-level government and also large scale ‘mass incidents’. From the mid-1990s large scale protests took place throughout the country and were often well planned as some older laid-off SOE workers called upon organising skills learned during the Cultural Revolution (AMRC 2007; for concrete instances see Callaghan 2005, p.155).

To deal with growing worker resistance to structural reform without serious harm to productivity growth and political legitimacy of CCP rule, the state attempted to embed labour relations in a legislative framework. The legislative approach began in 1995 with a comprehensive labour law (1994) which stipulated all manner of regulations on working conditions, minimum wages, working hours and overtime. The law also assigned to the sole official trade union the responsibility of arranging collective contracts between employers and workers, while workers right to strike and form an independent union remained denied under the law (Chan 2008). To this it added mediation and arbitration channels to resolve industrial conflicts that had seen increasing uptake from aggrieved workers.

This legalization of labour relations had several purposes. It was a genuine attempt to rein in the most notorious abuses of worker rights, thereby pre-empting serious disputes and

normalizing factory life. It was also an attempt to demobilize and individualize working class discontent – to drive it from collectivized strikes and demonstrations in the streets toward arbitration and mediation in government offices (‘officially sanctioned resolution processes’) (Callaghan 2005, p.103). For the CCP leadership, it was also to save the party-state from workers’ direct ire over the restructuring process, making the party-state appear to be an ‘impartial arbiter’ or ‘workers’ party’ who occasionally hands over to workers central government directions as weapons against their abusive managers and local government officials (Chan 2003, p.143).

Trade unions (All-China Federation of Trade Unions: ACFTU) were also supposed to play a role in streamlining and regularizing labour relations. By arranging collective contracts, it was expected to save employers the administrative trouble of offering, inking and implementing contracts with each individual worker. It was all the more beneficial for employers (especially foreign firms which escaped from militant trade unions in their own countries) that ACFTU, under the direct influence of CCP (which continued to appoint union officials and organize the workers congress), generally would do little or nothing to enforce such contracts but simply channelling individual workers’ grievances into the dispute mediation system (Blecher 2010, pp.104-105).

4.2.3. Allowing Rural Migrant Workers into Cities

Throughout the 1980s most TVEs flourished, employing over 100 million rural workers, as subcontractors to urban state enterprises. Hence, when many lead-firm SOEs went bankrupt in the early 1990s or found more cost-effective suppliers, thousands of TVEs were left in the lurch (Walker and Buck 2007, p.42). Also, TVEs were severely hurt by the harsh administrative measures to cut back the banks’ credit quotas in 1989 as their expansion was largely underpinned by bank loans. The collapse of TVEs brought about a serious problem of high unemployment in rural areas. In the early 1980s, the surplus of rural workers (who were underemployed or unemployed) was an estimated 70 million, or 18% of the entire rural labour force and this surplus grew to about 130 million, or 28% in the early 1990s (Zhang 2004). As a result, the income and consumption disparity between rural and urban residents was increasingly widening. In 1978, annual per capita disposable

income was 2.6 times higher for urban residents than for rural peasants and, by 2001, that ratio increased to 2.9. Over the same time period, the ratio of urban to rural consumption per capita increased from 2.9 to 3.5, demonstrating widening income and consumption disparities (NBSC 2003; Knight and Song 2005, p.36). It was against this backdrop that millions of workers began migrating to the cities in search of employment and higher wages (from rapidly growing private and foreign-invested enterprises).

On the other hand, many urban employers had a profit incentive to buy their labour force, mostly in preference to more expensive and less-disciplined urban workers. After decades of being mobilised under the strict control of the party-state and different collective work units, the rural population was not merely ‘peasant’ in the traditional sense, but rather constituted a well- disciplined reserve army of labour (with more than half educated in secondary school) ready to work productively (Li 2008, p.36).

In line with these growing demands for rural-urban migration, regulations on residential movement, that is, the household registration system of *hukou*³⁵ was more or less relaxed. While permanent movement from the rural areas to the big cities was still not permitted, rural residents were largely allowed to work and live in the cities temporarily. Prior to economic reform, urban rationing made even temporary migration extremely difficult. During the first stage of reform, when the ‘dual track’ system operated, rationed food was distributed at low prices, as before, and higher prices prevailed in the free food markets. The ration coupon system was largely abolished in 1993: it became easier for migrants to live in the city without a city *hukou*. Moreover, with free markets for food, peasants could buy grain to meet their production quotas, that is, to pay their taxes in the form of compulsory grain sales to state agencies, so that they could more easily leave their farms (Knight and Song 2005, p.26).

³⁵ The *Hukou* (戶口) system had been used by authorities for millennia for the purpose of tax collection and migration control. In 1958, the government officially reintroduced the system to ensure that the peasants stayed in the countryside and continued to provide cities with agricultural products. Each town and city (broadly categorized as ‘rural’ or ‘urban’) issued its own *hukou*, which invested only its registered residents with access to public welfare services within the jurisdiction. Like nationality, the *hukou* was hereditary; children were given a rural or urban *hukou* according to their parents’ *hukou* regardless of their place of birth. For analyses of the *hukou* system and migrant labour see Chan (2010, pp. 357-364).

Living and working in cities but still registered as ‘rural residents’, migrant workers were welcomed by urban employers as they could hire them *without* labour contracts required by the law. According to official survey findings, only 46.3% of all migrant workers (in the case of construction industry, less than 10%) were hired with written labour contracts (China State Council 2006, p.4). Employers had strong incentives to avoid signing labour contracts with workers and not reporting such employees. First, by hiring informally, enterprises could avoid having to pay required payroll taxes for pensions, unemployment insurance, medical insurance, and work injuries, which could be quite costly (e.g. in Shanghai in 2004, the regular employer contribution rate for these types of insurance totalled 36.5% of wages) (Chan 2003, p.137). Also, hiring workers on an informal basis would give employers greater flexibility to adjust the size of the labour force to respond to changes in economic conditions. Moreover, this greater managerial power of dismissal and ambiguous legal identity of migrant workers would make them more obedient than urban workers, which in turn would put disciplinary pressures on urban workers in factories. Indeed, well-educated young migrant workers worked intensively for an average monthly wage of \$24 (200 RMB) (which was only 44% of an urban workers’ average wage, and less than 1.1% of US workers’ wages) for 67.1 hours per week on average (which were 15.4 hours longer than urban workers) throughout the 1990s (Du, Wang, and Lee 2009, p.17, p.25), and these workers provided Chinese producers with the source of a strong competitive advantage: the use of inexpensive productive labour rather than expensive machines and managers (Arrighi, 2007, p.365).

According to some estimates, the number of rural people working in urban areas grew significantly from about 30 million in 1995 to 62 million in 2000, and further to more than 130 million in the mid-2000s (Cai 2003 p.32; Chan 2003, p.135). The 2000 population census data show that 144.39 million rural residents in China, or 11.6% of the total population, moved into cities and towns in 2000 (NBS 2002). This trend would be increasingly strengthened by China’s entry to the WTO in 2001 and the resultant liberalization of grain imports; it would continue to swell the ranks of the rural poor (about 800 million people, accounting for 65% of the population), out-competed by foreign grain companies and thus migrating to the cities in search for work even under sweatshop conditions (Ofreneo 2002; Li 2008, p.70). Indeed, from the early 2000s they became no

longer a supplementary workforce but a ‘major component of the new Chinese working class’, accounting for 46.7% of total urban employment across different industrial sectors including manufacturing, construction and services in 2006 (Leung and Pun 2009, p. 552).

4.3. Restructuring of the Banking System

4.3.1. Reform of the Central Bank

A major step in building an independent central bank was the enforcement of the Central Bank Law enacted in 1995. The law made it clear that the central bank should be separated from the administrative authorities at various levels. Article 7 of the Law dictated that “PBC shall, under the leadership of the State Council, independently implement monetary policies, perform its functions and carry out its operations according to law free from any intervention by local governments or government departments at all levels, public organizations or individuals.” Accordingly, the law stipulated that the PBC should not act as sole sales agent for state and other government bonds; it must not act as financial guarantor for any organization or individual (Ji, 2006, p.143). In other words, the PBC was now to fully assume the role of an independent and detached regulator, whose ultimate aim is to maintain the stability of the value of money and thereby ensure a ‘sound’ financial environment.

Dealing with the problem local governments’ structural influence over PBC branches, the PBC decided to formally abolish its branches at provincial and municipal levels and instead set up a small number of regional branches (Ji 2006, p.146). In provinces where a PBC branch became absent, a supervisory office was established to assume the role of arms of the “cross-district” PBC branch. With this new organizational structure, the PBC would be hopefully more protected from interference by local governments. Of course, the emphasis on central bank independence did not mean that the central government was going to sit by as a spectator on banking issues. According to the Central Bank Law, the PBC would be under the direct leadership of the State Council. It follows that the central government has come to take a more active role in ensuring that the PBC is freed from the influence of undisciplined administrative authorities.

In terms of the approach to macroeconomic management, the central government dictated the PBC to use a more indirect adjustment mechanism. In the past, the focus of PBC monetary policy had been on direct control over credit volume. Under the new law, the PBC should instead focus on the control of total money supply in terms of M1. Accordingly, the PBC began to mainly rely on monetary policy instruments rather than administrative directives over credit quotas for macro financial control. Indeed, instruments such as open market operations, discount and rediscount policy were adopted since the mid-1990s. The system of money markets was also improved by establishing a nationally unified interbank market (1996) where interest rates were formally liberalized. By using these indirect control instruments rather than resorting to administrative recentralization, the PBC successfully assisted the central government in controlling inflationary pressure between 1992 and 1993 without a serious political crisis.

4.3.2. Reform of Commercial Banks

The clear objective of SOBs reform was to make them truly ‘commercial’ by disentangling the banking system from SOEs and local governments. In other words, SOBs were supposed to be able to make profit an overarching goal, free from responsibility for macroeconomic stabilizations, welfare provision, or industrial policy promotions. To this end, the central government took a series of deregulatory and liberalization measures of the banking system since the mid-1990s, and the 1995 Law on Commercial Banks was the first step. The law, bestowing legal person status on SOBs (granting legally independent status to banks), made it possible for the banks to “independently manage their businesses, shoulder their own risks, be responsible for their own profits and losses and follow the principle of self-restraint in conducting commercial activities” (Ji 2006, p.151).

The PBC’s change to the practice of monetary management referred to above also helped commercial banks to become truly commercial. They were now allowed to determine their lending activities according to their own financial situation, as long as they maintained the required level of bank reserves. This did not mean, of course, that the banks were set free from all constraints. The newly introduced asset-liability ratio system meant that they were now forced to optimize asset to liability ratios and limit their credit and loan activities

accordingly.

Meanwhile, one of the most difficult problems in transforming commercial banks into independent legal entities was the fact that they were carrying the burdens of the past represented by the huge amount of non-performing loans. According to Chinese official sources by the end of 1995 bad debt had mounted up to nearly 25% of the four major SOBs' total loans (China Daily 1995). The banks' total debts had already exceeded their total assets, rendering the banking system virtually insolvent. In response to the problem, in 1998 the government executed a series of measures of bank recapitalization, such as setting up asset management companies (AMCs) to take over the non-performing loans of the SOBs, directly injecting capital into bank assets and debt write-offs (Hart-Lansberg and Burkett 2005, p.65).

In sum, with a series of banking reform, banks came under increasing pressure to operate on a more commercial basis and to scrutinize loan applications more carefully. This pressure was directly transferred to SOEs and TVEs whose expansion until the early 1990s was largely dependent upon easy bank loans. Indeed, some 1,000 large to medium state owned industries (let alone thousands of small collectives and TVEs) were driven into bankruptcy by the mid-1990s (AMRC 2007). Faced with potential bankruptcy, surviving firms in turn had to undergo severe restructuring or be sold to private investors.

4.4. Restructuring of Trade and Foreign Exchange Markets

4.4.1. Reform of Trade Policy

As discussed above, the *de facto* import substitution policies in the first stage of reform contradicted the state's goal of export-oriented development. Fiscal subsidies on export costs encouraged exporters to buy up exportable goods (mainly raw materials) inland rather than to reduce costs of production in their factories, whilst importers in SEZs focused on taking advantage of overvalued currency for importing consumer goods (rather than importing advanced technology and machinery) in response to soaring domestic demands. As a matter of course, these activities worsened fiscal and trade balances and at

the same time deterred inflows of export-oriented FDI by raising the cost of production within China.

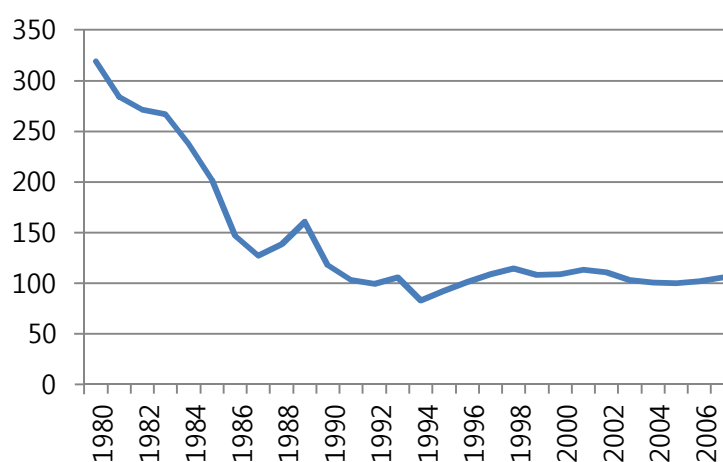
Learned from the previous experience, the new program in the 1990s called for “adapting to international norms on trade”, that is, more liberalized import and export management (Xie et al 1999 p.149). The government first abolished export subsidies in 1991, making exporters truly independent entities responsible for any losses in trading. This would expose exporters directly to the competitive pressure of world markets, thus forcing them to try to reduce costs of production. Meanwhile, in an attempt to use tariffs rather than import protections to manage import activities, import substitution lists were abolished in 1993 while licensing controls over trade were to a large extent reduced. With the process of delegating foreign trade rights to individual enterprises accelerated and the foreign exchange retention system was also abolished. Enterprises were now allowed to sell their foreign exchange income to banks licensed to conduct foreign exchange transactions as well as to purchase foreign exchange freely. With provinces and individual enterprises gaining greater access to imports and exports, and the gap between inland provinces and SEZs in foreign exchange retentions narrowed, incentives for “inter-provincial trading” were accordingly reduced.

Further, in line with its efforts to join the WTO, the government began to lower tariffs decisively, cutting the overall rate of 23% in 1996 to 10% by 2005 (China’s customs statistics). Interestingly, there occurred a more rapid reduction of tariffs for means of production such as foreign advanced machinery, equipment and raw materials than that of consumer goods. For instance, tariffs for metal materials decreased on average by 47.7%, to the level of 8.15% while the tariffs for textile materials remained at a relatively high level of 18.8% (Chen and Feng 2000, pp.328-9). In the case of advanced electrical machinery and equipment, tariff rates were reduced by 36.5% to the level of 13.65%. These practices show the government’s strategic intention not only to more thoroughly subject Chinese firms (especially SOEs) to external competition, but to reduce the relative cost of production in Chinese industries so as to increase their competitiveness in the international market.

4.4.2. Reform of Exchange rate policy

Related to the abolishment of the foreign exchange retention system was the exchange rate reform. After a series of devaluations of the currency to RMB 5.8 to the dollar in 1993, the government finally unified the official and swap market rates by raising the official rate to the then prevailing swap market rate, RMB 8.7 in 1994. Then by 1996 the currency appreciated slightly to 8.28 to the dollar where it remained almost unchanged until a limited flexible rate regime was established in 2005 (Lardy 2002, p.49). Unlike the previous round of devaluations, this time the nominal devaluation was effective in lowering the ‘real’ exchange rate as domestic price inflation was much settled down after 1996 (e.g. average annual inflation of consumer prices was only 1.3% between 1996 and 2002) as a result of the restructuring process repressing domestic consumption and social wages (e.g. between 1990 and 2005, China’s household consumption continued to fall from 50% of GDP to 37% of GDP) (Li 2005, p.81; NBSC 2007).

Figure 6.1. Real effective exchange rate for China between 1980 and 2007 (index 2005 = 100)



Source: FRED, Federal Reserve Bank of St. Louis: *BIS Effective Exchange Rate Indices*, <http://research.stlouisfed.org/fred2/series/RBCNBIS> (accessed 30 Sept 2010)

To keep this ‘competitive’ real exchange rate constant over time, the Chinese central bank used a dual intervention policy (i.e. the intervention in the foreign exchange market to fix the nominal value of the exchange rate and intervention in the domestic monetary market to control the inflation rate). While large sums of foreign currencies (the sum of the current account surplus and capital account surplus including net FDI) flew in, the central bank bought in foreign exchange (building up official exchange reserves) in order to keep the

renminbi from appreciating on the one hand, and at the same time as counteracting these purchases by issuing bonds in domestic markets (or/and raising reserve ratio of commercial banks) on the other. This intervention policy called ‘sterilization’ is employed to absorb the addition to the domestic money supply that has been created by the purchases of foreign exchange, neutralizing its impact on the domestic monetary base and inflation (Frenkel 2007, p.2; Husted and Melvin 2007, p. 443). However, the sterilization has a cost, when the interest rate paid on the domestic bonds exceeds that of foreign currency (the dollar) denominated bonds held by the central bank (Frenkel 2007; Frankel and Wei 2007). Theoretically, such costs tend to rise leaving costs to the government budget increasingly large, as the policy ends up either effectively raising domestic interest rates or inducing speculative ‘hot money’ to inflow with an eye to a perceived future currency revaluation.

In the case of China, while the government kept capital account transaction restricted to some extent, the central bank shifted the cost of sterilization to state-owned commercial banks by forcing them to buy these domestic bonds at a rate lower than market rates (Lardy 2008, p.3; Vermeiren 2013, pp.19-20). The SOBs then in turn offset the loss by means of high profit margins (i.e. a wide spread between deposit and loan rates of interest) deriving from deposit rates being kept very low. While workers had to increase savings in the context of an inadequate social security system, the lack of investment vehicles alternative to bank deposits allowed the banks to exploit their monopolistic position. Ultimately, those who subsidized the cost of sterilization policy, making the policy ‘sustainable’, were workers who had been forced to consume less and save more in spite of very low and even negative real rates of interest (e.g. the average real return on a one-year deposit for the years 2000 through 2007 was less than 1%, while household savings continued to rise reaching 36% of disposable income by 2007) (Lardy 2002, p.78; Vermeiren 2013, p.22).

5. Economic Growth and Contradictions of Reform

5.1. Low Unit Labour Costs and the rise of China

“The cheap prices of commodities are the heavy artillery with which batters down all Chinese walls, with which it forces the barbarians’ intensely obstinate hatred of foreigners to capitulate. It compels all nations, on pain of extinction,

to adopt the bourgeois mode of production; it compels them to introduce what it calls civilization into their midst, i.e., to become bourgeois themselves. In one word, it creates a world after its own image.” (Marx and Engels 1971, Ch.1).

In an October 1987 report to the Thirteenth National Congress of the Communist Party of China, entitled ‘Advance along the Road of Socialism with Chinese Characteristics’, then secretary general of the CCP Zhao Ziyang declared that China “should enter the world economic arena more boldly” and that its aim should be to develop an “export-oriented economy”. As many figures prove, China finally achieved that goal. Nobody could deny that it is the result of the restructuring process from the early 1990s, creating conditions highly conducive to exploitation.

As discussed above, from SOE ownership reforms to the labour market, foreign trade, exchange rate, and financial reforms, all the reform policies since the mid-1990s, in close relation to one another, were focused on creating conditions favourable to lowering relative unit labour costs (i.e. low wages and intensification of work along with a low inflation rate, fixed exchange rate, low cost of importing means of production etc.), which turned out to be some extent successful. For instance, between 1995 and 2002, annual productivity growth (real value added per worker) (11.1%) was faster than the growth of labour costs per worker (including employer contributions to social insurance funds) (9.9% per annum), thereby resulting in unit labour costs that fell by -1.2% each year (Ceglowski and Golub 2007, pp.605-6). Also, as the exchange rate was almost fixed since 1995 (8.28 yuan to the dollar) unit labour costs in dollar terms were reduced at similar rates.

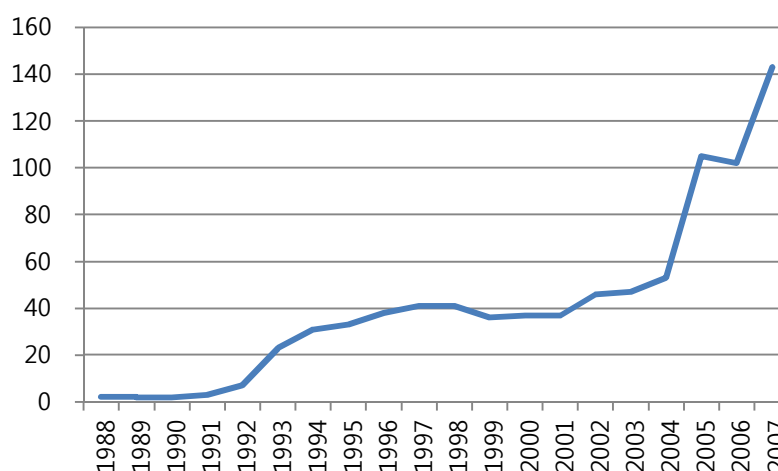
Comparing Chinese unit labour costs to other countries’ in dollar terms, one can estimate Chinese ULCs were well below those of most other countries during the period. According to Ceglowski and Golub’s (2007) calculation based on World Bank, Chinese and BLS-based estimates, in 2002 China’s relative unit labour cost (RULC) vis-à-vis developed countries (Japan, the EU, and the US) were 26–30% of their RULC, while against developing countries it varied from 23% for Singapore to 88 % for Brazil with the other NICs at around 30–40% (cf. Cox and Koo 2003; Banister 2005, p.32; Szirmai et al 2005).

Table 6.1. Chinese Productivity, Wages and RULC vis-a-vis Selected Countries, 2002 (As a per cent of comparator country levels)			
	Relative Productivity	Relative Wage	RULC
United States	7.7	2.1	27.0
Japan	8.7	2.6	30.3
EU average	10.7	2.8	25.8
India	152.1	61.8	40.6
Indonesia	102.1	72.6	70.9
Malaysia	41.4	16.9	40.8
Korea	11.6	5.3	45.5
Singapore	16.6	3.9	23.3
Mexico	28.1	9.8	34.9
Brazil	22.7	19.9	87.8
Source: Ceglowski and Golub (2007, p.610)			

Chinese unit labour costs which were very low relative to a wide range of other countries offered the exporting producers in the country potential surplus-profits, that is, the difference between the world prices of commodities and their costs of production in China. This was the first and foremost factor that induced huge amounts of export-oriented FDI (seeking “global labour arbitrage”) into China. Also, the Chinese government’s continued commitment to joining the WTO (which was finally realized in 2001) played an important role in attracting FDI, by allaying the fears of foreign investors about the lack of well-defined and established property rights and the absence of the 'rule of law' which might threaten the security of investments sunk in real productive capital in China.

As Figure 6.2 shows from the early 1990s FDI in China began to surge. Between 1991 and 1995, FDI grew more than ten times (from 3 billion dollars in 1991 to 33 billion dollars in 1995). In the mid-1990s, the flow of FDI was largely diverted from the East Asian NICs to China, with the Chinese share in FDI flows into Asia more than doubling from approximately 19% (\$1,021 million) in 1981-86 to 47.5% (\$16,736 million) in 1987-96 (UNCTAD 1997). In 2002, China, receiving FDI of \$53 billion, surpassed the US as the largest recipient of world foreign direct investment (China’s Ministry of Commerce 2003). By the end of 2005, the accumulated FDI in China was \$622 billion.

**Figure 6.2. Net FDI in China between 1988 and 2007
(billions of 2010 dollars)**



Source: World Bank, *Foreign direct investment, net inflows*:
<http://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD> (accessed 1 Dec 2010).

As Table 6.2 shows, the contribution of FDI to the Chinese economy was significant in diverse terms. In 2004, FDI inflows accounted for 7% of gross capital formation; 21% of tax revenue was generated by FIEs, which produced 28% of industrial output and took 57% of China's overall exports (87.9% of high-tech exports) (China Ministry of Commerce 2006, 2007).

Table 6.2. The Contribution of FDI to the Chinese Economy

	1992	1996	2000	2004
Share in gross investment (%)	7.4	17.0	10.3	8.2
Share of exports by FIEs (%)	20.4	41.0	47.9	57.1
Share of industrial output by FIEs	7.1	15.1	22.5	35.9
Number of workers employed by FIEs (million)	6.0	17.0	20.1	23.0
Share of tax revenue from FIEs (%)	4.3	11.9	17.5	20.9

Source: China Statistical Yearbook 2005, tables 17-19; China Ministry of Commerce, *Investment Statistics*: http://www.fdi.gov.cn/pub/FDI_EN/Statistics/default.htm (accessed 30 Dec 2011).

With the help of such a huge influx of FDI, China began battering down walls worldwide with its own heavy artillery: cheap commodities (Blecher 2010, p.93). While China's exports were ranked as the 26th in the world in 1980, with the volume of \$18 billion and 47% of exports as manufactured goods, the corresponding numbers in 2005 were 3rd rank, \$762 billion, and 93% (Zhang 2006, p.4). China's share of world manufactured exports continued to grow from about 4% in 1997 to 7% in 2003 and further to 13% in 2009,

producing (or at least assembling) 90% of all children's toys, close to 60% of the world's clothing, 30% of the world's television sets, 50% of the world's cameras, 30% of world's printed circuit boards and 70% of the world's photocopiers (WTO 2009). The manufacturing structure also increasingly diversified and moved into high-end goods with China ranking second after the US in research and development (R&D) investment (OECD 2006). Electronics products such as PCs and cell phones constituted 56% of total exports in 2006, climbing second only to the US (Iley and Lewis 2007, p.29).

Not surprisingly, China's stunning economic growth (with an average GDP growth rate of around 10.5% during 1990-2007) was in large part based on the rapid growth of exports (which soared by 18.5% per annum since end of the 1990s). During 2001-08, net exports and investment which was predominantly linked to building capacity in tradable sectors accounted for over 60 % of China's growth, up from 40 % in the 1990s. This was much larger than the average of the G7 (16%), euro area (30%) and the rest of Asia (35%) (Guo and N'Diaye 2009, p.4). On the production side, exports were estimated to contribute 30% in 2003 and 39% in 2006 in terms of value added to output growth up from 15% in the early 1990s (World Bank 2007). All the remarkable figures above indicates that since the early 1990s China had undergone a remarkable transformation in which it turned itself literally into the 'factory of the world'.

5.2. Problems of Workers' Resistance

Through the reform process China firmly secured a favourable position in the global economy. However, it does not mean that such condition was secured once and for all; in order to maintain the status quo, thus avoiding a political crisis, the Chinese state had to constantly restructure social relations in an attempt to keep the productivity level high. Central to the attempts was dealing with growing workers' resistance.

As referred to above, as a means to deal with workers' resistance, the state tried to legalize labour relations. However, such methods, that is, a strategy of demobilizing worker discontent through the institutionalized legal and bureaucratic systems was not effective throughout the reform era. Most labour contracts in written form were predominantly

short-term, while such contracts were not even available to millions of rural-urban migrant workers. Also, driven by competition to attracting and keeping profitable firms in their jurisdiction (known as ‘the race to the bottom’), local governments that were supposed to protect workers enforced labour laws and regulations ‘flexibly’ by influencing lower courts which largely depended upon funding from local states (Chan 2003, p.145). Indeed, minimum wages, set by local governments without any unified central regulations, rarely reflected the rising costs of living. For example, the municipal governments in the Pearl River Delta regions increased the statutory monthly minimum wages by as little as 68 yuan (approximately \$10) over a 12-year period between the 1990s and early 2000s (Ministry of Labour and Social Security 2004). Worse, the official trade union, the ACFTU, which was supposed to regularize worker discontent, was in large part inactive with little representative role. At the end of 2006, only 18 % of FIEs in China entered into collective wage contracts, while more than 10 million of the 13 million small and medium-sized enterprises in China did not have collective wage bargaining systems at all throughout the 2000s (Chen and Estreicher 2011).

Such circumstances met with the emergence of a ‘new generation of Chinese workers’ (Leung and Pun, 2009). The new generation of the working class, born during the 1980s and 1990s and more deeply integrated into capitalist China, was more sensitive to social issues and workplace rights than their parents. Previous generations might have taken any city job available, even at low salaries. But these young workers tended to seek jobs that would not only pay well enough to secure a better life for their families, but also provide career development, treat employees with respect, and help them gain a foothold in the cities (Leung and Pun 2009, p.553; Chang 2012, p.11; Chen and Estreicher 2011). Furthermore, despite state oversight, internet access helped those workers to quickly learn about strikes, wages, and working conditions at other companies, involving them in spontaneous collective actions. These characteristics of young workers were also prevalent among migrant workers, of whom more than 60% were estimated to be ‘new generation migrant workers’ (China Labour Bulletin 2011, p. 13). In other words, internal rural migrant workers, who were supposed to be willing to work under harsh conditions with low wages and thus weakening the position of urban workers, began refusing to be docile any longer.

Through waves of strikes, challenges to injustice and inequality against migrant workers was increasing in terms of numbers and ‘radicalizing’ in terms of its form (Leung and Pun 2009). More active individual and collective actions taken by migrant workers has moved the centre of labour disputes from SOEs to the private sector over the past decade (China Labour Bulletin 2012, p. 13) and became important aspect of social unrest.³⁶ By the mid-2000s labour activism in China made an important further development; by creating a wave of strikes concentrated in a particular industrial sector and then spreading out to the entire area in the form of solidarity strikes and protests, these struggles began to overcome the limitation of previous struggles that commonly ended as isolated incidents (Chan 2008, p.12; Hart-Landsberg and Burkett 2005 p.83). This increasing social unrest and radicalisation of migrant workers in particular led the party-state to address emerging discontent amongst the working population.

Under the pressure of intensified workers’ resistance,³⁷ undermining the legitimacy of the CCP’s authoritarian subordination of labour, from 2003 the new Hu Jintao and Wen Jiabao leadership began emphasizing ‘harmony and stability’ in society, even over the pursuit of economic growth and efficiency. Dubbed as ‘harmonious development’, the new labour policy was directed at addressing rural-urban disparity with increasing government investment in inland areas, a stricter implementation of the minimum wage policy (setting up hourly minimum wages to protect irregular workers, and enforcing local governments to adjust minimum wage standards at least once every two years), improved access to training and higher education (more investments in ‘human capital’), more aggressive campaigns to establish trade unions in private enterprises, encouragement of collective wage negotiation through collective contract systems and finally labour law amendments.

³⁶ According to China’s Ministry of Public Security, the number of ‘officially recognised’ mass incidents and demonstrations, such as collective suicide attempts, traffic blockage, and other public forms of civil disobedience taken by desperate workers, increased ten times from 8,700 in 1993 to about 87,000 in 2005 (Chan 2010; Leung and Pun 2009, p. 553). Approximately 70% were organised by peasants and migrant workers (Leung and Pun 2009, p. 553). Unofficially, at least one strike involving more than 1,000 workers occurred every day in the manufacturing hub of the Pearl Delta region in Guangdong, to say nothing of the many smaller spontaneous strike (AFP, 15 Jan 2008).

³⁷ For more examples and statistical data on labour disputes see CLB Research Report No.5 (2007, pp.15-24); Cai and Wang (2012, pp. 11-17); and Chan (2009, pp.60-77).

Although the fundamental purpose of the set of policies and amended laws was to keep the working class from burgeoning collectivism and to absorb them as individual citizens by conceding real material and institutional gains, it brought about strong protests from both foreign and Chinese business leaders as the law indeed had the effect of improving the labour security of migrant workers to some extent (Gallagher 2010; Wang et al 2009). While the issue of whether such an approach would lessen or strengthen labour activism remains to be seen, it was predictable that it would make (at least short-term) costs of exploitation in China rise significantly, threatening the current engine of Chinese growth. For instance, minimum wages in China increased substantially in terms of both nominal and real term rates. The average monthly minimum wage in 1994 was less than 200 yuan. Meanwhile in 2006, the monthly minimum wage reached a concentrated range of 550 to 650 yuan, with a highest of 780 yuan in the largest export platform, Guangdong Province. In 2006, average increases of minimum wages were 72.8 yuan (approx. \$11) per month, and the growth rate was far more than the economic growth rate in the same year. Of course, such rises in minimum wages boosted the average wage level even faster. Between 1995 and 2006, the average annual growth rate of the average wage was 11.8% in nominal term and 10% in real term (from 514 yuan in 1995 to 1750 yuan in 2006) (Du et al 2006, pp.14-16). In response to these rising wages, many multinationals began either installing robots in their plants or moving production lines into lower wage countries such as Indonesia, Vietnam or Cambodia instead of employing more workers in China.

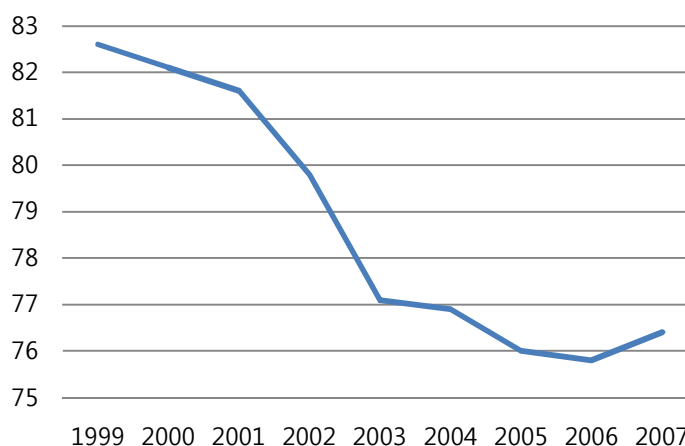
What such a changing environment implicated for the state was clear; to keep the pace of existing growth it had to employ policies for raising productivity as fast as wage growth. The imperative of keeping productive competitiveness through the efficient exploitation of cheap labour made the government's efforts to mitigate class conflict always contradictory and self-defeating (Andreas 2008).

5.3. Problem of overcapacity and overproduction.

Adding to FDI funds that rushed in, huge surplus profits (deriving from the difference between world prices of commodities and the Chinese costs of production) earned from exports were eagerly reinvested in production, facilitating ever greater levels of capital

accumulation. The rapid accumulation, however, was building up its own barriers to further accumulation; productive capacity was increasing faster than the pace of growth of consumption demand in both domestic and foreign markets, repressing the prices and profit rates. Figure 6.3, the declining average capacity utilization rates, clearly shows this trend of overinvestment and overcapacity.

Figure.6.3. Average Capacity Utilisation Rate in China between 1999 and 2007 (%)



Source: China Statistical Yearbook 2008, *National Accounts*:
<http://www.stats.gov.cn/tjsj/ndsj/2008/indexeh.htm> (accessed June 6 2012).

The tendency to overinvestment was inherent to the capitalist reform process itself. In the face of rising wages and intensifying competitive pressures, individual firms were increasingly preoccupied with investing money (either earned profits or borrowed money) in high-tech new machinery, more advanced technologies and labour management skills while shedding ‘surplus’ workers through downsizing and reengineering, in an attempt to produce a greater amount of final products with a smaller number of workers (i.e. to reduce unit labour costs). As a result of these activities, despite the investment boom the unemployment problem³⁸ remained persistent and wage growth was checked by the

³⁸ According to official statistics, urban unemployment in China stayed below 3% throughout the 1990s and the 2000s. However, these series are severely biased downward; they underestimate the unemployment among rural residents and rural-urban migrants (those without urban hukou); dismissed workers aged more than 50 (for men) or 45 (for women) are not counted as unemployed; it does not include about 40 million workers who have been laid off by SOEs (called *xiagang*, they are treated as still employed by SOEs). If the ILO definition of unemployment (persons without work, available for work, and seeking work, meaning not only registered unemployed but also *xiagang* and unemployed without hukou in cities) is applied, an even higher real urban

growing reserve army of labour, pushing the aggregate effective demand down increasingly further. Of course, the low cost of production made it possible for China-based firms to enlarge the global market share that could to some extent complement inefficient domestic demands. But the problem was that the competitive pressure intensified by the flood of commodities made in China on the world market was also forcing foreign-based firms to follow suit; they, just like firms in China, reacted to the cost-cutting pressures by replacing workers with new machinery or lowering wages, and thereby ending up with increasing productive capacity and at the same time decreasing aggregate demand.³⁹ Of course, many inefficient firms that could not keep up with the race to the bottom pulled out of the market. But it did not directly lessen the burden of overcapacity of remaining firms, because their withdrawal from markets inevitably entailed mass unemployment and the resultant shrinking markets. It follows that overinvestment, overproduction of commodities and sluggish aggregate demand growth in the world market reinforced each other with prices and profit rates increasingly depressed. The fallout of this tendency was not only to be limited to individual firms. With profit rates ever-falling, a growing mass of capital would be no longer reinvested in production, which in turn would aggravate the market situation by increasing unemployment, bankruptcies, and losses to the banking system in a vicious circle.

From the late-1990s, the Chinese government sought to confront this problem through debt-financed investments in huge mega-projects of building infrastructure. In the same way as the US during the 1950s and the 1960s, thousands of highways, airports, new railroads, and huge dams were to be built in every big city. Considering China's under-developed infrastructure relative to the rapid expansion of manufacturing, it seemed quite reasonable for the state to invest in such projects for long-term productivity gains. But the problem was the increasing instability of SOBs. Much money that had previously gone to

unemployment rate comes out. According to Knight and Xue (2004), urban unemployment rose over the 1990s, from 4.2% in 1990 to 5.6% in 1995 to 11.5% in 2000 and further to 15.2% in 2005. Ofreneo (2002) cites a figure of 13%, while an even higher 17-20% was estimated by the ILO.

³⁹ Faced with cost-cutting pressures and falling profit margins, established firms cannot simply withdraw from markets because they have large amounts of assets in the form of fixed capital. As long as the cost of moving out of the market (so-called sunk cost) is higher than the cost of over-investment the firm should continue to operate in spite of the negative effects on profit rates (this is a situation often called 'sunk cost dilemma') (see Weeks 2000, Walker 1999 p.185).

the banks in an attempt to clean up bad loans during the banking reform of the mid-1990s was again mobilized for a variety of local government projects and the volatile real estate-construction sectors since that time (e.g. investment in real estate soared by near 20% per year from 2001 to 2005 and reached 11% of GDP in 2005) (Barnet and Brooks 2006, p.17). Adding to this, the government also commanded those commercial banks to increase their lending and to loosen credit controls regardless of risk calculations just as was the case in the 1980s. As a result, by the mid-2000s, a serious bad debt problem arose again (let alone the growing problem of the property bubble). In 2003, for example, while nearly 50% of all loans (approximately worth \$500 billion) made by the major banks were estimated to be ‘non-performing’, the government had to transfer \$45 billion from its foreign exchange reserves to two big state-owned banks as “the third large bailout in the banking system in less than six years” (Harvey 2005, p.134).

With the chronic problem of an ‘unhealthy’ banking system remaining, the state’s outstanding public debts (not including SOBs’ non-performing loans, that is, so-called ‘hidden liability’) more than doubled from 6.5% of GDP in 1996 to 20% of GDP in 2007 (IMF 2009). Of course the figures had remained well below the so-called ‘safety level’ of 60% of GDP, but such debt/GDP ratios were not unproblematic considering some other factors related to it. First, as a result of privatization and lax taxation policies, China’s public revenue/GDP ratio had remained very low at 13% compared to ratios of around 30% or more typical of many European countries (Hart-Landsberg and Burkett 2005 p.74). This means its GDP growth would generate far less government revenue with which the state could fund deficits. Second, from 2007 the Chinese banking sector began to be fully opened up for foreign banks according to its WTO obligations. Although it would take some time for foreign banks to ‘adapt’ to the opaque and exclusive Chinese banking system, they would certainly put increasing competitive pressure on SOBs in the long run. Competition among banks would result in higher interest rates that banks have to pay out on savings deposits, and the lower rates they were able to obtain on the loans they make. As a result profit margins for SOBs were likely to be squeezed, making it more difficult for them to carry the burdens imposed by any sub-commercial loans they would be obliged to make. Thus the ability of the banks to support capital accumulation within the state sector (including ‘sterilization’ policy) was likely to be more and more impaired (Hart-Landsberg

and Burkett 2005 p.74). These factors show there were real limits on how much the Chinese government could safely increase its deficit spending by.

The limitation of debt-financed government spending in dealing with the overcapacity problem encouraged the government to take the second option: exporting cheap credit as well as cheap commodities, thus helping trading partners to spend more based on credit expansion. By using the revenue deriving from the sales of sterilization bonds, the state purchased the inflowing dollars in the exchange market, with which it bought up a massive amount of dollar-denominated assets, thereby underpinning the purchasing power of dollars as well as lowering interest rates in the world market: a financial environment conducive to employing expansionary policies. Expressed another way, pouring huge amounts of unemployed money capital into the global financial centre, China made it easier for the US and other states (in fact made it impossible for them not) to employ expansionary monetary-fiscal policies upholding levels of global effective demand in the face of the growing deflationary pressure. It follows that the Chinese state's desperate attempts to overcome overcapacity problems expressed itself in the world market as overproduced commodities on the one hand, and overextended credit on the other. Although such state financial intervention indeed to some extent lessened the burden of overcapacity and overproduction by allowing foreign markets to rapidly expand, it, as will be discussed in later chapters, ended up contributing to increased overcapacity and overproduction problems that would entail a potentially more devastating crisis in the future.

6. Conclusion

This chapter has explored the process in which China transformed itself into a surplus-running 'factory of the world' with special attention to socio-economic policies the state employed during the reform era. As discussed, the party-state embarked on the reform process under the pressure of accumulation crisis that led to the crisis of the CCP rule in the mid-1970s. The existence of this crisis has been demonstrated with the empirical material showing the falling productivity growth rates, a decade-long stagnating real wage growth rate, and frequently-recorded hyper-inflation rates that triggered socio-political unrest represented by the first and second Tiananmen incidents. The immediate goal of

reforms was, thus, to restructure underlying class relations of production in a way to increasing labour productivity. The core of the restructuring process was to set both firms and workers free from the imposition of state plans (i.e. the directly political form of class relations), and thereby to establish class relations based on commodity exchanges in the market where the rule of money and law obtains. The result of reforms was immediate; firms, exposed to the competitive pressure on the one hand, and endowed with the freedom of management on the other, began struggling to improve the conditions of production by forcing down wages, expelling ‘surplus’ workers and intensifying work for the remaining workers. Coupled with the socialist legacy of high-quality social-physical infrastructure, and the introduction of advanced technologies by foreign investors, such a drastic re-composition of class relations, as expected, brought about a dramatic growth in productivity. With the world’s lowest unit labour costs delivering capitals larger world market shares and higher profit rates than the average, China was able to rise as the largest global factory attracting the world’s productive capitals. In this chapter, this fact has been empirically demonstrated with the world-lowest unit labour costs and increasingly larger world market shares for firms operating in China coupled with the historically unprecedented influx of FDI between the mid-1990s and the mid-2000s.

The very ‘success’ of the reform process, however, posed another form of threat to dominance over labour: intensifying workers’ resistance and chronic problems of overcapacity and unemployment. The CCP leadership responded to the potential crisis by means of more accommodative labour policies pacifying class confrontation, along with debt-financed state-led investment projects injecting demand into the market. The contradiction was that such practical responses of the state might well bring about higher costs of exploitation and escalating financial instability, possibly making the initial problems even worse and deeper in the long run. Ultimately, despite its rapid growth, or as a result of the rapid accumulation, China was becoming ever more vulnerable to political and economic crisis, which in this chapter has been empirically examined with the ever-falling average capacity utilization rates, chronically high unemployment, increasingly more cases of serious industrial action, and growing bad-debt loads (NPLs) in the banking system during the mid-2000s. This growing possibility of crisis made the state rely increasingly on the growth of the ‘consumer of the last resort’, that is, US’ debt-financed

consumption expansion as one of the most attractive ways to ease the growing contradiction it faced. It was in this context that China had come to form the global imbalance together with the US.

The following chapter will examine the other pole of the global imbalance, that is, the development of the US economic growth between the mid-1990s and mid-the 2000s during which it played the role of ‘the world consumer of last resort’.

Chapter 7. The Rise of America as the debt-ridden consumer of the world

1. Introduction

This chapter explores why the US came to play the role of the ‘debt-ridden consumer of the world’ from the mid-1990s to the mid-2000s and how the state was able to sustain such a position in the global economy. For this purpose, the chapter analyses economic policies during that period with special attention to their role in creating so-called ‘bubbles’ (the stock market bubbles in the second half of 1990s and the housing bubble in the first half of 2000s). At the same time, based on the understanding that bubble-led growth is a fictitious and temporary prosperity built on credit expansion (rising paper-value of assets) without corresponding improvements in productive conditions, the contradictions and limitations that it entailed will also be discussed.

The chapter consists of three parts. The first section outlines how the state responded to the crisis in the 1980s and what was left for the Clinton administration in the early 1990s. The second part examines the debt-driven consumption-investment boom based on the stock market bubble in the 1990s. It starts with a brief outline of economic policy changes, a turnaround from the previous policies under Clinton, and then shows that the economy enjoyed a debt-financed consumption boom in the face of worsening conditions of the ‘real’ economy that the policies actually brought about. The remainder of this section focuses on how the state inflated the contradictory stock market bubble. The third part surveys how the fallouts of the collapsed bubble were weathered by another bubble, that is, the housing bubble in the early 2000s, which enabled the US to continue to pursue economic growth based on credit expansion. By tracking the origin of the housing bubble, this section explains what roles the state assumed in forming the bubble, and what contradictions it involved.

The findings of this chapter are empirically supported by a variety of macroeconomic indicators. Firstly, the existence of the accumulation crisis faced by the American state in the early 1990s is demonstrated with the steadily falling capacity utilization rates and exceptionally high unemployment and poverty rates coupled with constantly falling real

wages. Secondly, the fact that the rise of the US as a world debt-ridden consumption market was due to the economic policies employed in response to the crisis (a set of economic policies with the objective of encouraging more active investment based on easy credit) will be proven by presenting empirical data related to the policy outcomes such as the relatively high unit labour costs (e.g. upward pressures on the overall trade-weighted real value of the dollar), rapidly shrinking world market shares for firms producing tradable goods in the US, and the constant trend of de-industrialization/financialization. Thirdly, the process in which the continued rapid growth ended up intensifying, rather than countering, the tendency towards overaccumulation and crisis in the US will be examined in reference to empirical data such as the ever-rising debt-to-GDP ratios, in particular the rising household debt and debt-service payment as a percentage of disposable income until the year 2007.

2. Historical Background

1.1. Failed Restructuring and the Precarious 1980s

By the mid-1970s the US was witnessing the limitations of Keynesian demand management in overcoming the accumulation crisis; the traditional expansionary response to falling rates of profit, sluggish economic growth, rising unemployment and social unrest were making the problems even worse by increasing rates of inflation with the balance of payments deteriorated. Ultimately, the growing separation between money and production exposed the dollar to speculative attacks, leading to the 1977-79 dollar crisis¹. In response to the dollar crisis, a dramatic policy turnaround was taken by the monetary authority in 1979; rather than supporting inefficient firms and workers by sacrificing the value of money and the whole system, the Fed decided to drive them out of the economy by forcing up interest rates to their highest level. The intent of the policy was clear; any firms unable to cope with high interest rates by cutting unit labour costs were to leave the market, while workers unwilling to accept lower wages and more intense work were to be sacked and fall into poverty (Harman 2009, pp.200-1). At first, this brutal restructuring project appeared to some extent successful; with widespread bankruptcies and high rates of unemployment and

¹ On the detailed observation of the dollar crisis at that time see Helleiner (1994, pp.131-5).

poverty, the trend of ever-rising wages/prices finally changed its course while productivity rose sharply, leading to lower US unit labour costs by the mid-1980s (Glyn 2006, p.81).

However, a series of ramifications of such an unprecedented hike in interest rates made the Fed and the administration abandon the policy drive shortly after. First of all, the unexpected interest rate hike forced a number of developing countries that had incurred huge amounts of debt at a time of low-rates and weak dollars to threaten a default, possibly putting US banks in serious jeopardy. Also, a steep trend of strong dollars (that appreciated by more than 40% until 1985) built by speculative inflow of funds did huge damage to US-based producers. For US firms producing tradable goods, any gains from lowering unit labour costs were effectively offset by the high value of the dollar vis-à-vis other currencies. Faced with growing pressures from banks and firms as well as trade unions, the Fed and the administration changed policy direction once again; while the Fed cut the rate from 16.38% in 1981 to 9.09% in 1983 and further to 6.81% in 1986 in an attempt to reduce the burden of indebted firms, the government began focusing more on how to protect less competitive US manufacturers, rather than on how to restructure them. Among other policies (notably the aggressive tax-cuts), the most prominent was a weak-dollar drive directed by the Plaza Accord in 1985 (Brenner 2002, pp. 59–74; Helleiner 1994, p.184). Through bouts of concerted interventions into exchange markets (sales of Treasury bonds along with lowering other countries' interest rates relative to US'), the US and other advanced states devalued the dollar against other major currencies by more than 50% from 1985 to 1987 with the trend persisting until the mid-1990s. It seems evident to some extent that such a weak dollar together with low real wages made US producers more competitive relative to producers in Japan and Europe; the US' unit labour costs in terms of dollars came to be within striking range of many of its advanced trading partners since then (van Ark 1995; Shaikh 2000).

However, a weak dollar as such was not a cure-all; rather, the effects were contradictory in some ways. Above all, it effectively supported the manufacturers in Asian NICs and emerging BRICS whose currencies were pegged to the dollar. Indeed, the relatively strong yen and European currencies encouraged FDI flows into those countries providing exceptionally low-wage and disciplined workers, which in turn boosted their

competitiveness vis-à-vis US-based producers. In the race to the bottom, the US successfully caught up Japan and Europe, but in so doing the US ended up calling stronger competitors to the ring. As a result, although the US current account deficit had come back somewhat from its record highs of the mid to late 1980s, the persistence of the current account deficits appeared quite inexorable through into the-mid 1990s. In addition to this, a weak dollar also caused the uncomfortable problem of stagnating productivity growth relative to other advanced countries. Low value of the dollar (and relatively higher interest rates in the US) made imported capital goods more expensive, which in turn made it difficult for US-based producers to engage in more aggressive capital-intensive forms of investment. Indeed, from the mid-1980s Japan saw a significantly higher growth rate of productivity (in particular in high-tech electronics industries) compared to the US, thus threatening the US's competitive position once again (Dertouzos et al 1989, p.10).

After all, the policy of weak dollars was not that successful in securing larger market shares for US producers and thus reinvigorating productive investments. Rather, it attracted large amounts of speculative funds from Japan and Europe (taking advantage of the strong yen and interest rate differential made by the Plaza Accord), forming a financial market bubble (represented by highly-leveraged M&A crazes) into which US firms, reluctant to expand productive activities, also rushed to invest with earned profits. While such bubbles repeatedly brought about a debt-driven consumption boom and a subsequent collapse, the economy as a whole was largely dependent upon an unprecedented sum of government spending in particular military expenditure as well as successive state bail-out operations for stock markets with government debt growing from 44% to 69% of GDP. Defence spending hit a peak of \$456.5 billion or 10% of GNP in 1987 (in 2005 dollars), compared with \$325.1 billion in 1980 and \$339.6 million in 1981 (CSBA 2010), while the US military economy (so-called Military Keynesianism) employed almost six and a half million people and one job in twenty depended, directly or indirectly, on military spending (The Washington Post, 17 January 1986; Tirman 1984, p. 22). Growing deficit spending without increasing international competitiveness might well result in an expanding trade deficit, that is, overseas borrowing. It was by this time that the financing of the US trade and budget deficits through capital imports transformed the US from the "world's largest net creditor to its largest net debtor" (Walter 1993, p.231). Also, the economy was growing

on the precarious political basis of income redistribution named ‘Keynesianism of the New Right’, injecting demands into the economy by means of tax-cuts for the rich while carrying out political assaults on workers who were demanding higher wages.

When the credit expansion without corresponding improvement in productive conditions (i.e. a source of debt repayment) reached the ultimate limit and the increasing costs of borrowing (due to bad debt problems of banks) began to make it more difficult for the government and firms to borrow and spend any longer, the economy by the early-1990s fell into the deepest recession ever experienced in the post-war period, a typical overaccumulation crisis just like that of the mid-1970s.

1.2. Recession and Growing Political Pressure in the early 1990s

The fallout of the early 1990s recession was not limited to the years 1990 and 1991. Though by official measures the formal recession was short—running from July 1990 through to March 1991, every economic indicator other than GDP growth and stock market indexes (responding to a massive expansion of liquidity by the Fed) grew increasingly worse well into the mid-1990s (Henwood 1999). Capacity utilization rates, which once reached a high point of 83.9% in 1988, declined to 77.1% in 1991 and then remained below 80% in 1993 (FRED). With excess capacity, firms were not eager to borrow and invest despite the Fed reducing real interest rates to almost zero (although corporate borrowing and investment were gradually recovering from the end of 1993, they remained at half the mid-1980s level). Instead, it seemed that relatively inefficient firms were preoccupied with cutting costs by means of mass lay-offs, intensification of work and wage cuts, which again clouded the overall investment environment by undercutting aggregate domestic demand. As a result, the recovery did not result in any signs of improvement in labour markets. Unemployment rates, which had peaked at 7.8% in 1992, did not fall below 6% during 1994, while the rate of unemployed plus underemployed (‘contingent’ workers) remained exceptionally high at 11.5% in 1995 (Moseley 1999, p.32; Smith 2008, p.198). High unemployment precipitated the decade-long downward trend of real wages. Continuing to fall from \$15.7 (measured in 2001 dollars) in 1973, average real wages reached a trough of \$12.27 in 1993. Considering the feeble US safety net (the short

duration of unemployment benefits as well as the substantially higher costs of health care for those without jobs), it is not surprising that such a long-lasting high unemployment also led to a widespread poverty problem. The official poverty rate rising continuously from 13.5% in 1990 to a record high of 15.1% (just below 40 million people) with more than 30% of black and Hispanic people living under the poverty line (the relative poverty rate, showing the relation to median income, also broke the record at 24% in 1994) (Notten and Neubourg 2007, p.16).

The political fallout of such a gloomy economic situation was not only felt by Bush-I and Democrats who unexpectedly lost elections to rivals in 1992 and 1994 respectively, but by the whole political system through 1992 LA riots and growing cynicism towards bipartisan politics as the lowest turnout rates of each election showed. Although imposing deflationary pressures at the cost of the majority of people, that is, repressing consumption to its utmost was an unavoidable course of restructuring in the economic sense state managers were under growing political pressure to find whatever ways to immediately improve the lives of their voters even at the cost of the general long-term interest of the economy.

Apart from domestic political stresses, growing pressures were also applied by a deteriorating external and financial environment. During the early months of 1995, in the wake of the collapse of the peso and the subsequent US bail-out of the Mexican economy, there followed a new run on the dollar, sharply accentuating its secular fall over the previous decade. The Clinton administration, implicitly favouring further falls in the dollar, did not at first resist the trend in the name of 'benign neglect' policy towards exchange rates (Callahan and Garrison 2003). By April 1995, however, a decade of an unprecedentedly weak dollar seemed to have brought the Japanese to the edge of collapse (Powell 2002). The yen had risen by 60% over its level at the start of 1991, and by 30% over its level at the beginning of 1994, to a record-high exchange rate of 79 against the dollar (Murphy 1997). A high value currency, unless validated by sufficient curtailment of nominal wages or rapid productivity growth, would lead to higher unit labour costs in dollars which not only drives domestic producers (exporters) to the verge of bankruptcy but encourages them to invest in lower-wage countries or in more profitable financial

markets with earned profits, thus ultimately causing political distresses deriving from financial instability (in the wake of debt-driven prosperity), stagnating productive investment and high unemployment. With such an exceptionally strong yen for a sustained period, Japan was not an exception; highly-indebted producers still remaining on Japanese soil could not even cover their variable costs, and the Japanese growth machine appeared to be grinding to a halt (Murphy 1997). The real headache to Washington was not the possible collapse of Japan's manufacturing-based economy as such, but the ripple effect on its own financial markets that it would bring about. It was almost certain that any serious crisis of Japan (or any further fall of the dollar) would precipitate a large-scale liquidation of their enormous holdings of US assets, especially Treasury Bonds (Brenner 2000, p.15). Such a development would drive up interest rates, frighten money markets, and possibly lead to a deeper recession at the very moment the US economy was still in the shadow of the 90-1 recession. Given that the next presidential election was beginning to loom, a policy turnaround seemed inevitable at that time.

3. New Economy based on Stock Market Bubble

3.1. Policy Turnaround for a Breakthrough

By the mid-1990s, it became clear that the decade-long strategy of reviving US industrial growth by cheapening the corporate USA (a weak dollar through international policy cooperation as well as cheap labour through imposition of unemployment and poverty) was a futile attempt to swim against the tide. Acknowledging that it was not only ineffective but also unsustainable both in political and economic senses, a sharp reversal of economic policy occurred under Clinton. Central to the new strategy of restructuring was a combination of a strong dollar and low interest rates, by which it seemed policy-makers sought for a growth based on brisk investment for higher productivity growth. Larry Summers justified the policy turnaround by arguing that "pushing the dollar down leads to a lack of confidence in financial markets and undermines the discipline needed to increase productivity" (Summers 2002, p.261) In other words, he was expecting "an appreciation of the dollar would force rationalization and cost-saving upon undisciplined manufacturing sector" (Frankel 1994, p.325). But unlike under Volker, such a disciplinary pressure of strong dollars would be combined with low interest rates and brisk stock markets, thus

hopefully leading firms to more investment activities instead of more bankruptcies.

In theory, there are close links between a strong dollar, low interest rates and investment growth. A strong dollar would not only cheapen imported capital goods (machinery, technology, and raw materials) but also imported consumer goods (and thus wages). These disinflationary effects of a strong dollar (together with the Clinton government's spending cuts) would enable the monetary authorities to expand liquidity without the worry of inflation (Callahan and Garrison 2003, p.72). This low interest rate, in turn, coupled with the deregulation of financial markets, would make it easier for firms to incur bank debts or to raise money by issuing shares through brisk stock markets. Of course, a strong dollar would put deflationary pressure upon some manufacturing firms by exposing them to fiercer price-competition from those operating in low-wage countries, but it was considered that more aggressive investments in advanced methods of production and technology as well as the highly flexible labour markets (allowing even lower wages) in the US would give them a breakthrough to successful restructuring.

This optimism was partly based on the legacy inherited from Reagan era: highly developed new information and communication technologies, and highly flexible labour markets. As noted, the Reagan era's military Keynesianism poured huge amounts of money into such projects as the Missile Defence System (the so-called Star Wars) of which a large part was spent on R&D into the new information and communication technologies in particular the Internet. They might have considered it was high time to finally benefit from the past investment; its ability to assimilate the new technologies for commercial ends, allowing them to capture surplus profits by being the first in the field with new commodities. Another legacy came from the decade-long new-conservative crusade against trade unions along with successive industrial shake-outs and high unemployment which to no small degree dissolved the entrenched positions of American organized workers. Combined with the introduction of new technologies, a more compliant labour force allowing more flexible working times was expected to lead to a more rapid turnover of capital (Harman 2009, p.235).

As shown in Table 7.1, the 'New Economy' boom of 1996-2000 apparently achieved the

goal set by policy-makers (Pollin 2006, p.35). While the international policy cooperation of the ‘reverse Plaza Accord’ successfully appreciated the dollar with interest rates kept relatively low, the period saw a very powerful boom, marked by an acceleration of productivity, employment and, eventually, real wage growth as well as booming stock markets.

	1993-95	1996-2000
Real GDP growth	3.1	4.1
Productivity growth	0.9	2.5
Unemployment rate	6.2	4.6
Inflation rate	2.8	2.5
Industrial Production Index	4.2	5.14
Real hourly wage growth	-0.1	1.4

Source: Bureau of Economic Analysis, *GDP & Personal Income*, http://www.bea.gov/iTable/index_nipa.cfm (accessed June 14 2012); Bureau of Labour Statistics, *Economy at a Glance*, <http://www.bls.gov/eag/eag.us.htm> (accessed June 14 2012).

But, as will be discussed in the following, this boom was almost entirely dependent upon debt-driven consumption growth based on a stock market run-up without basis in underlying growth of productive activities. Such fictitious prosperity persisted through into the mid-2000s.

3.2. Reality: Declining US Industrial Competitiveness

Before discussing how the debt-driven consumption boom developed, this section examines the reality of the underlying ‘real’ economy during the second half of the 1990s, which was characterized by declining American industrial competitiveness and the resultant trend of deindustrialization along with the growing pool of low-wage labour.

3.2.1. Declining Competitiveness and Deindustrialization

Table 7.2 shows that the trend toward de-industrialization (the tendential decline of the manufacturing share in an economy) in terms of employment had continued over the period in spite of the boasted investment boom of the New Economy. The share of US employment in the manufacturing sector declined from a recorded peak of 32% in the early 1940s to 16.7% in 1989 and then further to 13.1% in 2000, whilst the proportion of

workers employed in services (retail, finance, public utilities, entertainment and real estate etc.) and construction sectors which are largely insulated from foreign competition continued to grow from 77.3% in 1979 to 82.6% in 1989 to 86.5% in 2000 (Mishel et al 2007, p.169). This trend of de-industrialization can also be found in terms of output; US manufacturing value added as a share of the total US economy steadily fell from 24% in 1970 to 18% in 1990 and further to 15% in 2000 (UN NAD 2013).

	1979	1989	2000	2005
Manufacturing	21.6	16.7	13.1	10.7
Services	72.2	77.7	81.3	83.4
Construction	5.1	4.9	5.2	5.5
Government	17.9	16.6	15.8	16.3

Source: Bureau of Labor Statistics, *Occupational Employment Statistics*: <http://www.bls.gov/oes/tables.htm> (assessed Sept 7 2012); Mishel et al (2007, p.169).

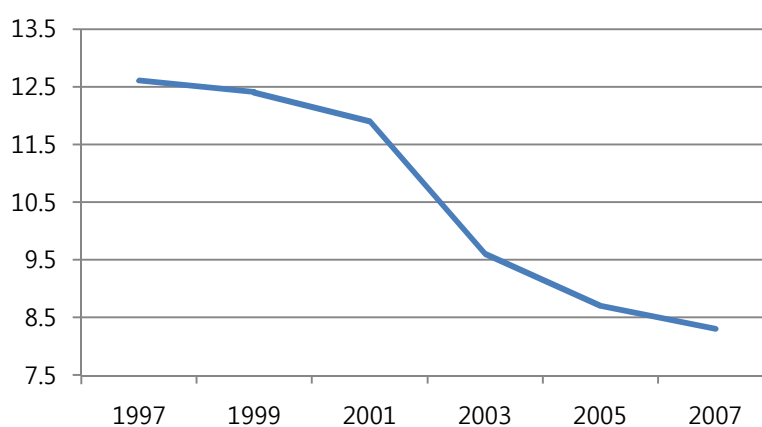
The main factor shaping the pattern of deindustrialization was the shrinking market share, that is, the falling competitiveness of US-based manufacturers and the resultant reduction of domestic production (Burkett and Hart-Landsberg 2001, p.34; Shaikh 1998, p.60-61; McKinnon 2004, p.3)². Indeed, as Figure 7.1 shows, between 1997 and 2007 the US share of world exports fell 4.3% from 12.6% to 8.3% in a steady trend of decline since 1980.³

² It can be argued that the most important factor that shaped the pattern was the pace of productivity growth in manufacturing sectors that had been faster than that of other non-manufacturing sectors (see Harman 2009, p.333). It is undeniable that different productivity growth between sectors indeed to some extent influenced the trend, but the factor alone cannot show the whole picture; considering the falling ratio of domestic manufacturing production to total manufacturing demand, and the ever-growing amount of the trade deficit in manufactures, one cannot ignore that the shrinking market share and reduction of domestic production had played an important role in shaping the pattern.

³ From 1980 to the mid-2000s the U.S. share of world manufactured exports fell by almost one third (Del Gatto et al 2011, p.2).

Figure 7.1. World export shares of US between 1997 and 2007 (%)

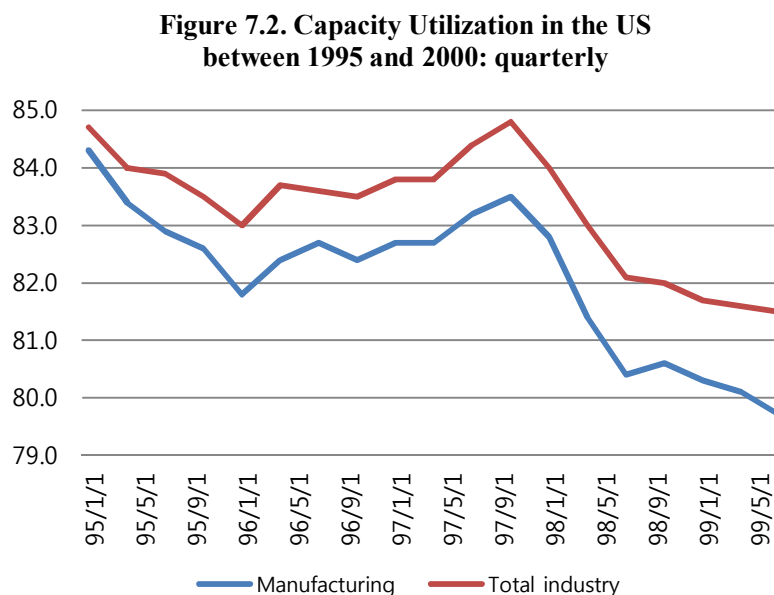
Source: WTO international trade statistics 2009



The market share losses were concentrated in certain product groups (capital goods such as electronics, machinery, and transportation equipment) and in specific geographical areas (East Asia in particular China) that had been expanding fastest as a share of world trade. Indeed, the US share of machine and computer exports fell from a third of the total in 1984 to around 20% in 1994 and then further to 14% in 1999 in spite of the supposed US competitiveness in these areas. In terms of exports to fast growing China, Chinese demand for US products relative to others was also falling; the US share of world goods exports to China declined from 12% in 1995 to 9% in 2004, while the share of such countries as Japan, Germany, South Korea, Indonesia, Malaysia, and Singapore tended to increase (del Gatto et al 2011, p.8). While US manufacturers' ability to penetrate export markets was increasingly eroded, they were also becoming less competitive at home. The US domestic manufacturing market saw growing penetration by imports: foreign-produced manufacturing goods took 26% of the market in 2000 (up from 14% in 1991), including 80% for leather and shoes, 57% for apparel, 51% for computers and electronic equipment and 33% for cars and a wide swathes of machinery. It is estimated that by the mid-2000s, about a quarter of manufacturing sectors ceded more than half their domestic market to imports with the trend accelerated (Glyn 2007, p.83; Mishel et al 2007, p.171).

Such shrinking market shares can also be identified by the falling capacity utilization (that is, excess capacity or insufficient demand to warrant further expansion of output through more investment). As shown in Figure 7.2, while the rate of capacity utilization for all industries saw a relatively slight fall of 2.5% from 84% in 1995 to 81.5% in 2000, the rate

for manufacturing fell by 4% from 83.3% to 79.3% during the same period. From this figure it can be estimated that manufacturing in the period had disproportionately shrunk with less investment compared to other sections of the economy due to the market share losses.



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: *Industrial Production and Capacity Utilization*, <http://research.stlouisfed.org/fred2/series/TCU>; accessed Sept 17, 2012.

Behind this trend was the problem of production costs that had been higher in the US than in other countries. As Shaikh put it, “relatively high-cost regions would tend to have declining shares in a market as customers will flock in greater numbers to firms with lower selling prices. Their higher unit labour costs would make it difficult for them to sell outside the region and would leave their markets vulnerable to products produced in lower-cost regions.” (Shaikh 1998, pp.60-61).

During the second half of 1990s, the unit labour costs of manufacturing production in the US declined at an average annual rate of more than 1% owing to the growth rate of labour productivity (3.2% per annum) higher than the annual growth rate of nominal wages (2.2%) (Brenner 2000, p. 65). Nevertheless, US manufacturers’ price competitiveness significantly fell during the same period, because the fall of unit labour costs was overwhelmed by both the large appreciation of the dollar (21% in real trade weighted terms) and the emergence of Asian exporters including China where the extremely low level of wages as well as

relatively well disciplined labour practices resulted in a great price competitiveness. For example, in 1998 although the US manufacturing productivity level (value added per person) was about 14 times higher than that of the Chinese, the US wage level (labour compensation per person in dollar terms) was 63 times higher than that in China, thus the US unit labour costs in dollars were 4.5 times higher than China's (Ceglowski and Golub 2011, p.14). Matters were made even worse for US producers when the East Asian (and other developing) countries fell into crisis in 1997–98, leading to a drastic devaluation of their currencies vis-à-vis the dollar (i.e. a drastic reduction of wages in terms of dollars). During the period, crisis-struck developing countries such as South Korea, Mexico and Brazil competitively joined the Chinese-led race to the bottom, driving down the prices of tradable goods in the world market at a rate of a staggering 4% every year. Not surprisingly, such a rapid fall of prices in world markets made the pace of declining US unit labour costs too slow for production in the US to be profitable (Brenner 2000, p.66). In that situation, if American producers were to fully catch up the foreign competitors (and thus to maintain or expand production in the US), a combination of an even faster growth of labour productivity, even lower real wages and a drastic devaluation of the dollar, that is, a combination that could be called a 'crisis' would have been necessary.

Unable and unwilling to withstand these pressures from the world market, many US businesses began giving up investing in manufacturing production in the US. In some cases, they turned themselves into a sort of financier dealing with consumer finance, for instance Enron, GM, and GE (Blackburn 2006; *The Economist*, 17, April 2008). In other cases, they became commercial vendors, closing down plants and sub-contracting production to low-wage regions such as China or tariff-free export platforms of 'Maquiladora' sweatshops and then importing final products into the US (Cravy 1998, p.71; Glassman and Carmody 2001, p.83).⁴ It follows that, for them, strong dollars were both a means and opportunity for

⁴ Bronfenbrenner and Luce's (2004) observation on this pattern of restructuring provides a good example: "US based Amerock announced in February 2004 that it would be shutting down its Rockford, Illinois cabinet and window manufacturing plant after seventy-five years in operation. The company plans to move 450 jobs from Illinois to China and Mexico – not to sell hardware to the Chinese and Mexican market, but in an effort to reduce production prices and stay competitive in the US market. This is true for a wide variety of products that will be produced in China to sell back to the US market by companies such as Carrier Corp. (air conditioners), Levis (jeans), Werner Co. (ladders for Home Depot), Union Tools Inc. (lawn and garden tools) and Remington Products

liberating themselves from the production in the US, rather than financing a decisive breakthrough in labour productivity. And such activities of them made the existing problem of declining competitiveness even worse and hastened the decline of US manufacturing production by supporting debt-financed consumption in the US at the same time as upgrading low-wage regions' productive capacities.

3.2.2. Growing pool of low wage workers

As shown in Table 1, the other story of de-industrialization was the growing population (around 85% of all workers) working in the 'non-traded sector' –services, finance and construction sectors. According to Mishel's estimate (2007, p.175), in the 1990s the US manufacturing sector subject to import competition, including toys, clothing and electronic goods saw about 3.5 million trade-related job losses (with 1.7 million and 1.9 million in the 1980s and the 2000-4 period respectively). Such new supplies of workers to the service and construction sectors (from displaced workers plus young workers not able to find manufacturing jobs) lowered wages of workers already employed in those jobs.

Further, the declining manufacturing sector was not the only source of supply of workers to those sectors; while the government, seeking spending cuts, did not assume the role of job creator (e.g. the government share of employment fell from 16.6% in 1989 to 15.8% in 2000), millions of former welfare recipients were also forced into the sectors. In 1996 President Clinton signed the Personal Responsibility and Work Opportunity Reconciliation Act, to end "welfare as we know it." The act as a market-based social welfare policy replaced the existing entitlement programme for single mothers with a new work-based program that required recipients to participate in work or work-based activities in order to receive cash assistance. Between 1996 and 2001 more than two million single mothers were dropped from the welfare rolls and 70% of those who left welfare were working in the service sectors, especially retail and eating and drinking establishments where they were paid at a \$5 to \$7 an hour range that was below a conceived 'living wage' of \$8 per hour at that time (Harris 1996; Cancian et al 1999; Hays 2004; Corcoran et al 2000). While the former recipients had a hard time making ends meet with reduced disposable income,

Company (electric shavers)" (pp. 33–34).

their move to the labour market increased the size of the reserve army of labour and intensified competition for jobs among non-welfare low-wage workers, exerting downward pressure on wages and upward pressure on the unemployment rate.

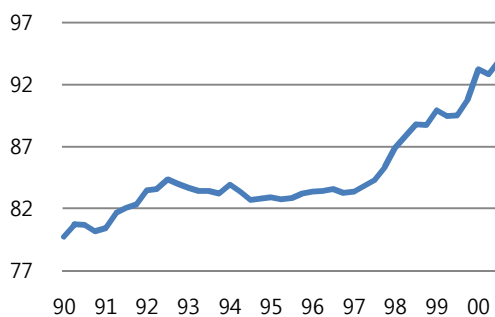
In addition, the 1990s saw a huge influx of migrant workers into the labour market. Immigrants were forming a growing part of America's labour force, and Mexican immigration was a key part of the trend. The Mexican immigrant population grew by 104% during the 1990s, from 4.3 million to 8.8 million overall (Fix et al. 2003). One of the most important factors accelerating the trends was the ratification of NAFTA in 1994. NAFTA, by permitting heavily-subsidized US agri-business products to compete with small Mexican farmers, drove more than 2 million Mexican farmers off the land. These people living in desperate poverty were among those that crossed the border to feed their families (Bybee and Winter 2006). Also, NAFTA's service-sector rules allowed big firms like Wal-Mart to enter the Mexican market and, selling ultra-cheap goods made in China, to displace locally-based manufacturing firms. Meanwhile, Mexico's economic woes from the peso crisis increased the "push factors" leading to migration. While government policies to discourage immigration (e.g. expanding border patrols and capping the number of legal visas) had little effect in deterring transnational movement, they were not without influence; rather than reducing the flow of Mexican migrants, their principal effect was to drive migration further underground; the overall flow of migrants continued to grow as before, with the composition shifting from legal to illegal. During the period 1990–2000, the number of undocumented immigrants more than doubled from 3.5 to 8.5 million for the United States overall (Passel 2005). While the harsh suffering in Mexico forced millions of desperate Mexicans to cross the border, these "illegal immigrants" provided US employers with a vast disposable pool of cheap labour with no meaningful rights on the job (Massey 1998, pp. 22-3). While one in five low-wage workers were immigrants, nearly 10% of all workers in sectors such as construction, nondurable goods manufacturing, and services were undocumented Mexican migrants. Their average wage was estimated at less than 41% of native workers in the same job positions without accounting for the other benefits which range from 27-30% of their total employment compensation (AILF 2002). Among others, immigrants did increase the reserve army of labour, a mass of workers who compete against one another for jobs under any conditions.

Considering that workers were not pulled into such industries by rising demands for services, but rather that they were *pushed* out and then forced into the sectors where oversupply of labour was putting downward pressures on wages, and half of those who were still working in manufacturing sectors suffered a wage cut of 15% or more, it is not surprising that the average wages for non-supervisory workers and the earnings of those in the lowest 10% decile of the wage distribution not only remained well below those of the Nixon/Ford and Carter administrations, but were actually lower even than those of the Reagan/Bush years. Indeed, during the 1993-96 period real wages were stagnating at a forty-year low (\$13.27 in 2001 dollars) while unemployment rates remained at a relatively high point above 6% (Glyn 2007, p.111; Rowthorn and Coutts 2004; Yates 2004). People were to pay for the declining profitability of corporate America.

3.2.3. Boom of Stock-market Keynesianism

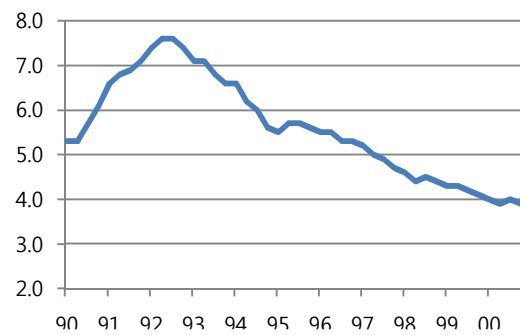
However, a quite surprising turnaround of the New Economy occurred from 1997; as Figure 7.3 and 7.4 show, real hourly compensation started rising sharply for four consecutive years (reversing the long lasting trend since the 1970s) with unemployment rate dropping to a record low of 3.9% by 2000. As a result, individual poverty rates also dropped while the chronic problem of income inequality was somewhat improved.

**Figure 7.3. Real Compensation Per Hour
(nonfarm business sector) (2005=100)**



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis:
<http://research.stlouisfed.org/fred2/series/COMPRNFB> (accessed Oct 1, 2012).

**Figure 7.4. US Unemployment Rate,
Percent, Quarterly**



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis:
<http://research.stlouisfed.org/fred2/series/UNEMPLOY> (accessed Oct 1, 2012).

From Table 7.3 that shows the composition of GDP according to expenditure categories, one can estimate that the turnaround was fuelled largely by the increase in private consumption and to a lesser degree by private investment, while public expenditure

substantially contracted and trade deficits persisted. This trend of private consumption and investment boom naturally turns attention towards the issue of credit expansion given the fact that the average wage for non-supervisory workers was declining or stagnating until the second half of 1997 under the continuous pressure of de-industrialization discussed above (Henwood 1999). In addition, as Table 7.4 shows, households and businesses did increase their debts more than enough to actually raise the overall domestic borrowing relative to GDP despite drastic reduction of government borrowing.

	1977-80 Carter	1981-92 Reagan/Bush	1993-2000 Clinton
Consumption	62.6	64.9	67.1
Government	20.0	20.6	18.2
Investment	18.2	16.1	16.4
Net exports	-0.9	-1.6	-1.7

Source: U.S. Bureau of Economic Analysis, *GDP & Personal Income*, http://www.bea.gov/iTable/index_nipa.cfm (accessed June 14, 2012).

Years	Government	Household	Business	National	International
1980-1991	8.58	7.47	4.82	20.87	2.14
1991-2000	3.9	11.48	6.99	22.37	6.5

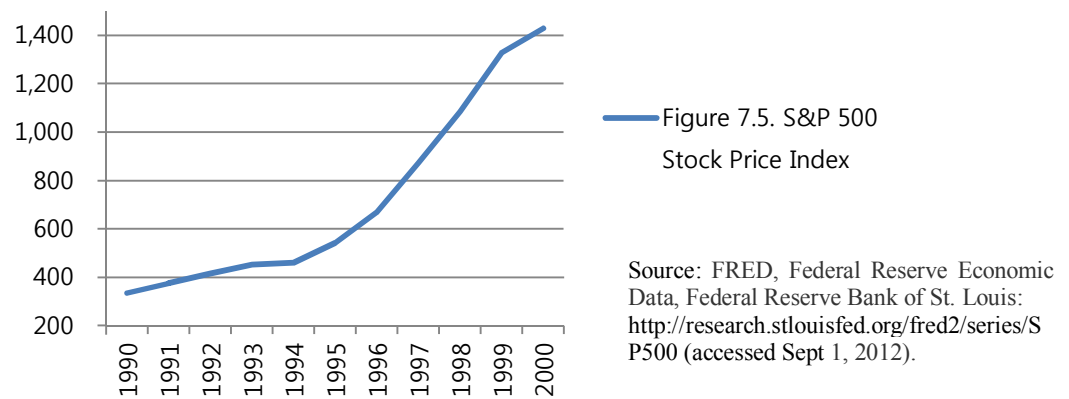
Source: Meeropol (2007, p.8).

While between 1992 and 2000 consumer expenditures increased 4.4% annually, much faster than the 3.3% increase in disposable personal income, and savings rate plummeted from 8.7% to -0.12%, household debt (including mortgage and consumer debt) relative to disposable income soared dramatically during the Clinton era, reaching 97.4% from a then-unprecedented record of 79.0% under Reagan/Bush (Roach 2001). The trend of the rising debt/income ratio was also found in business categories. Under Clinton, firms' internal funds (their flow of available new funds from after-tax profits and allowances for depreciation of operating equipment) relative to their total debt declined to an all-time low of 9.8% from 10.5% in the 1980s (FRB 2001, Pollin, 2005, p.40).

As a matter of course, linking stagnating income growth with growing consumption and investment by means of debt was made possible by low interest rates, which significantly reduced costs of borrowing for those in growing need of debt to cover falls in real wages

and profits. Indeed, despite the size of national debt (total demand for credit) expanding, real interest rates (of 10-year Treasury bonds) were actually lower during the period averaging 3.6% compared to 5.3% during the Reagan/Bush era. This was partly because of the Fed's cuts in the fund rate and partly because of the influx of huge funds from abroad (international borrowing) which amounted to 6.5% of GDP. However, the 3.6% rate was still far higher than the level of any previous presidential era; for the 1961-80 period prior to Reagan, the average real Treasury rate was 1.1%, less than a third of its level in the Clinton period. These figures make it difficult to argue that the increase in household and corporate debt in the period was directly due to low interest rates (Pollin 2005, p.41).

What really made such a rising debt/income ratio (and thus rising consumption-investment/income ratio) possible was a hike in financial asset prices, a bigger capacity (collateral) to borrow. In other words, the stock market boom during the second half of the 1990s effectively increased net wealth (the value of total assets minus total debts) of households and firms, which in turn enabled and encouraged them to borrow more and spend a higher fraction of their incomes. Indeed, by the first quarter of 2000, the value of corporate equities had soared to \$19.6 trillion, up from \$6.3 trillion in 1994. Measured as a percentage of GDP, it had tripled from 50% to 150% between 1995 and 2000 (FRB 2001). According to a research on this so-called 'wealth effect', the unprecedented rise in the stock market in 1995-1999 actually injected between \$275 and \$460 billion, or roughly 2-4% more spending into the economy per year, which in turn stimulated further growth through its impact on investment and jobs (Maki and Palumbo 2001; Roach 2001). In effect, the increase in the public deficit that was so indispensable to US economic growth during the 1980s was replaced by an increase in the private deficit financing of demand based on stock market run-up—what Brenner called 'stock-market Keynesianism' (Brenner 2004, p.60).



Responding to the growing consumption demand, firms, in particular those that were insulated from foreign competition such as retail, community services, finance and construction began expanding investments. Of course, the platform of their prosperity was built on the growing pool of low-wage workers, whose hourly compensation, falling at an average annual rate of 1.6%, was only 48.3% of that in manufacturing sectors in the 1990s (Mishel et al 2007, p.168). While more and more workers were pushed out of unprofitable manufacturing and forming a pool of cheap disposable labour force, retailers and service providers benefited from the rapid increase in consumer expenditures fuelled by the wealth effect of bull markets. Also, the steep rise of the dollar, by making imported goods cheaper, provided retailers such as Wal-Mart with an increasing opportunity for profiting from commerce (e.g. Wal-Mart contributed no less than 10% of all imports from China, which grew from \$44 billion in 1995 to \$122.5 billion in 2002) (Wonnacott 2003). Those firms reliant on domestic consumption spending, together with financial firms benefiting from fees and profits for superintending share issues and mergers and acquisitions, enjoyed unprecedented prosperity.

The US economy was experiencing typical consumption-led growth based on deficit spending. As Henwood (1999) put it, “a lot of the “real” investment occurring in the late 1990s [was] actually in the service of a great financial bubble. So this wasn’t really the investment-driven expansion it’s said to be. Quite the contrary, in fact: it’s the most consumption-intensive expansion in U.S. history since the 1930s Depression”. One of the contradictions of this consumption-led growth was that it actually accelerated the trend of deindustrialization. Considering that the upward pressure on wages amid declining unemployment as well as the strong dollar together made productive activities in the US

even less competitive and attractive (Thornton 2006, p.10), it is not surprising that manufacturing investment grew considerably more slowly than general business investment “in sharp contrast to the 1960s and early 1970s, when manufacturing grew at the same speed. The growth of manufacturing investment was about a third lower in the US ... than in the earlier period” (Harman 1993). In short, the stock market boom set in motion consumption that was not supported by a corresponding expansion of productive activities and one of the results was the ever-expanding trade deficit, that is, accumulation of increasingly irredeemable foreign debts.

3.3. Origin of the Stock Market Bubble and its Contradiction

Already in the early 1990s, the stock market was gradually rising despite the deep recession due to the short-term real interest rates being reduced to zero. Since then, as productive investments did not seem profitable enough, the massively expanded liquidity began flowing into the stock market, creating conditions for the unprecedented surge during the years 1995-2000. Conventional explanations for the stock market boom based on the “New Economy” theory, however, focused their attention on the internet revolution and the so-called ‘productivity miracle’ which supposedly opened vast new vistas for business profits (Pollin 2006, p.36-37). Justifying the unprecedented stock price inflation, they argued that the prospect of future internet-led productivity growth and hugely expanding Internet-related markets might well drive rational investors to bet on shares of firms in particular dot-com-companies. But, as will be examined in the following section, it was speculative financial flows set off by state economic policies from 1995 that actually boosted stock markets, and thus the growth of claims on future profits in the market that were not matched by a corresponding increase in productivity and profits.

3.3.1. Reverse Plaza Accord and Strong Dollars based on Speculative Funds

Led by Treasury Secretary Robert Rubin the US entered into an arrangement with Japan and Germany to take joint action to drive down the yen (and Deutschmark) and push up the dollar. In much the same way as had the original Plaza Accord of 1985, the reversal of the exchange rate trend "was to be accomplished by lowering Japanese interest rates with respect to those in the US, but also by substantially enlarging Japanese purchases of dollar-

denominated instruments such as Treasury bonds, as well as purchases of dollars by Germany and the U.S. government itself" (Brenner 2003, p.331). According to the plan, in April 1995 the Bank of Japan cut the official discount rate, already a very low 1.75%, to 1% and, the following September, reduced it further to 0.5%. This did help to bring about the desired effect of reducing the yen's value, falling by 60% with respect to the dollar for the same period.

These concerted government interventions, however, did not lead to brisk investment in productive activities in a country where its currency was depreciated (this time, Japan) just as did in the US after the 1985 Plaza Accord. Instead, it provided private investors with a conduit through which they can safely funnel out large quantities of speculative funds into a country where its currency was appreciating. The interest rate differential available from the so-called carry-trade, combined with the orchestrated rise of the dollar against the yen, meant that as long as the Reverse Plaza Accord held, investors would be offered a nearly guaranteed profit by borrowing yen in Japan to invest in financial assets denominated in dollars such as Treasury bonds or corporate stocks (Callahan and Garrison 2003, p.73). Indeed, between 1994 and 1995, net foreign purchase of T-bonds was almost doubled from \$78.8 billion to \$134.1 billion while net flow of foreign funds into corporate stocks increased about six fold from \$1.8 billion to \$11.2 billion (FRB 1998). Such a speculative movement could not but accelerate the rise in the price of US financial assets with downward pressures upon interest rates (Moseley 1999, pp.34-36). After having risen respectively by just 2% in 1994, the S&P 500 jumped up by 17.6% in 1995, by far the biggest increases since 1989. The index rose by a further 23% during 1996 in spite of Greenspan's famous warning against 'irrational exuberance'. In 1997, the S&P 500 increased by another 30% (Shiller 2005). The expansion of the US equity price bubble beginning in 1995 was soon amplifying the acceleration of growth in the economy at large.

The most contradictory effect of the speculative flows was that, even as the productive conditions of American industries was further undermined by the rising cost of production (a strong dollar and rising wages amid a consumption boom), their asset prices were given a further impetus upwards, as speculators were able to make profits from both exchange rate movements and the rise of the American stock markets.

3.3.2. Asian Crisis and Monetary Policy

One of the unexpected results of the reverse Plaza Accord was the outbreak of financial crises in East Asian countries (most of whose currencies had been pegged to the rising US dollar) and its ripple effects on the American economy. As the value of their currencies was steeply falling (e.g. while most of their currencies fell by more than 50-60%, even the Japanese yen depreciated by more than 30% during the June 1997-December 1998 period), hitherto fast-growing East Asian export markets (i.e. Asian demand for US goods) were collapsed and at the same time US-based producers were faced with the flooding of domestic markets by even cheaper Asian goods (Moseley 1999, pp.66-67). Indeed, between 1997 and 1998 the growth of US exports plummeted from 14% to 2% (in real terms) while imports continued to grow at 11.8% (Brenner 2000, p.20). These negative impacts on US industries along with growing uncertainty in financial markets began affecting the booming stock markets. While net foreign purchase of US financial assets declined from \$218.7 billion in 1997 to \$67.0 billion in 1998 (mainly due to crisis-struck Asian governments' sales of Treasury bonds), and remaining private investors moved their funds into 'safe havens': Treasury bonds, the S&P 500 had begun to drop rapidly, losing 10% from its mid-July peak and it fell a further 10% in the wake of the Russian default (Moseley 1999, pp.35-36). Finally, when the highly leveraged Long Term Capital Management hedge fund (LTCM) admitted that it was about to fail, the Fed intervened once again not only to bail-out the hedge fund investors but to keep the stock market from collapsing. It was an explicit 'too big to fail' policy towards the entire stock market (Foster and Magdoff 2009, p.84). Justifying the bail-outs as an attempt to stabilize the domestic and international economy, the Fed made its famous three successive interest-rate cuts in autumn-winter 1998, followed by sudden and drastic Federal fund rates cut from 5.5% to below 4% (the widest deviation from its target rate in nine years) in 1999.

As an expected result of such rate cuts, after increasing at a rate of less than 2.5% during the first three years of the Clinton administration, liquidity (measured by MZM) increased over the next three years (1996–1998) at an annualized rate of over 10%, rising during the last half of 1998 at a binge rate of almost 15% (Callahan and Garrison 2003, pp.81-82). From June 1995 to March 2000, it grew 52%, well ahead of real GDP growth of 22% for

the same period (Rogers 2002). Bank loans thus raced ahead at a 19.4% annual pace during the fourth quarter of 1999, the highest in at least fifteen years. This expanded liquidity, as the Fed must have hoped, found its way into stock markets (Anderson 2000). Also, after it was confirmed that the Fed would keep stock markets from falling too far (or after they realized how dependent the US economy was on the bull market), foreign investors (fleeing troubled parts of the world) immediately responded to the Fed's signal by flocking from bond markets (or Asian markets) to stock markets. As Table 7.5 shows, between 1998 and 2000, net foreign purchase of corporate stocks soared from 50 billion to 174.8 billion (accounting for 30% of total purchase of shares in the years), whilst the figures for T-bonds turned negative from 184 billion to -9.9 billion.

	Treasury Bonds	Corporate Stocks
1998	49,039	50,020
1999	-9,953	107,522
2000	-54,032	174,890

Consequently, regardless of the ever-aggravating conditions for underlying productive capitals' activities, the stock market skyrocketed further and further by feeding itself (Henwood 1999; Harman 2009, p.283). During 1998 and 1999, the S&P 500 Index increased by 27% and 19%, respectively, and by March 2000, the S&P 500 had risen 20% above its level at the end of October 1999. It now stood at 3.3 times its level at the end of 1994. The technology and internet-dominated NASDAQ had exploded in much more extreme fashion, up from 2736 in early October 1999 to 5000 in March 2000. By the first quarter of 2000, the value of corporate equities, their market capitalization, had soared to \$19.6 trillion, up from \$6.3 trillion in 1994 (Shiller 2005; Callahan and Garrison 2003).

3.3.3. Corporate buy back mania and contradictions of the stock market bubble

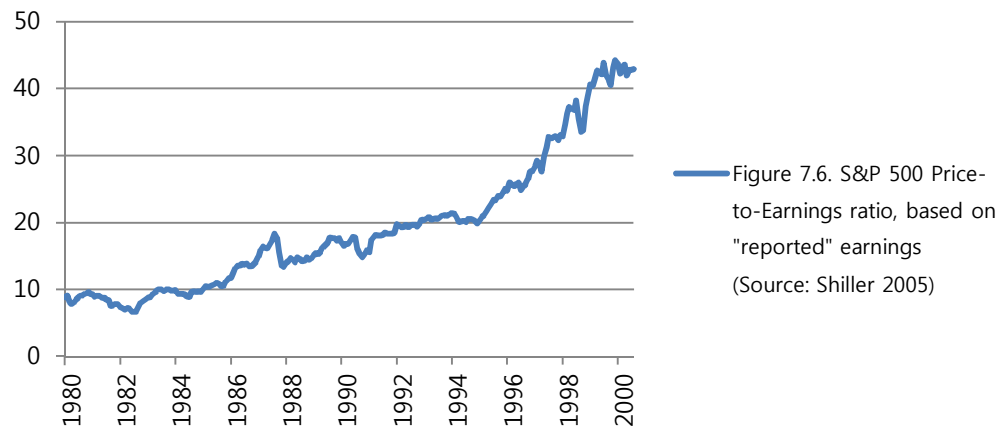
Throughout the stock market boom, while the overall environment for incessant expansion was built by the Fed, the biggest bulk of stock was bought by the issuer: corporations themselves. Between 1994 and 2000, it is estimated that firms repurchased an average of \$121 billion per year of their own stocks (Pollin 2005, p.62). This activity of buy-backs

was precipitated through ever increasing assumption of debt. For instance, in the years 1994–99, borrowing by non-financial firms amounted to \$1.22 trillion, of which firms used just 15.3% to fund capital expenditures, financing the rest of such purchases out of retained earnings plus depreciation, while they spent no less than 57% or \$697.4 billion, on buying back stocks—an amount equal to about 75% of their retained earnings and 40% of after-tax profits (Brenner 2000, p.24)

There seemed to be diverse immediate purposes of these activities. Firstly, it was a resumption of the pattern that already emerged between 1984 and 1990 when the mergers and leveraged acquisitions crazes (including buy-backs as a defensive strategy to fend off hostile takeovers) absorbed many firms in speculative share repurchases (Foster and Magdoff 2009, pp.58-60). Second, it was a speculative strategy to realize capital gains through selling stocks while the speculative market was experiencing a cyclical up phase. In fact, while the Fed was building up a so-called ‘firewall’ protecting the real economy from stock market shocks, the very ‘insurance’ against falling stock prices actually made speculating in stock markets look better than investing in the worsening ‘real’ economy where profits through expanded production were less and less guaranteed (Callahan and Garrison 2003, p.84). The Fed actually was encouraging a relative increase in non-productive activities against productive activities (Shostak 2003). Also, it was one of the major means through which firms (that incurred growing debts to stock their offices with computers and telecommunications equipment) could keep themselves current on payments, as higher stock prices, rather than increased profits, was the actual foundation providing them with the capacity to refinance maturing loans (Harman 2009, p.285). Lastly, such activities became increasingly attractive to corporate executives during the boom because most of them were receiving a large fraction of their pay through stock options rather than salary. Thus, the managers might well focus attention on driving up share prices (by resorting to more debt) even for a brief period through buy-backs, during which they could sell their shares (Weissbenner 2000).

Whatever the immediate reason, however, it is undeniable that such buy-back mania was reflecting the fact that firms were taking advantage of the increase in finance through stock markets not for supporting more efficient production (investing in long-term productive

potential) but for making money from money, accumulating potentially irredeemable debts.



High prices of shares as such cannot be something problematic, but it forms a 'bubble' to be burst if prices rise without regard to the underlying economy, that is, the value produced in the productive sections of the economy. In case of the 1990s boom, there is lots of evidence showing the lack of links between them, and the movement of the price-to-earnings ratio is one of the most manifest examples. As Figure 7.6 shows, the price/earnings ratio for the firms on the S&P 500 index began soaring from 1995 and reached an unprecedented peak of 43.8 in July 1999 (Shiller 2000, 2005). This means that by the middle of 1999, investors were paying \$43.8 for one dollar of reported earnings; in terms of the so-called earnings yield (the price/earnings ratio inverted), it means the annual rate of return on shares was a mere 2.2%. Compared to the historical average (1880-1989) of 14 (P/E ratio) and 7.7% (earnings yield), one can see that both figures of 1999 peak were exceptional; stock buyers were paying roughly two and half times more for a dollar of reported earnings than they had done over the previous 110 years (Pollin 2005, p.58). This actually reveals that the boom was based on bubble dynamics; shares were being purchased, for the most part, simply on the expectation that their prices would go up further, regardless of firms' rates of profit (Smithers and Wright 2000, p.226).

By early 2000, investors began to see the fact that stock prices, in particular those of internet-related firms were too high relative to the earnings of firms. For example, at its peak when the NASDAQ Composite rose over 80% in 1999 alone, the price/earnings ratios of Yahoo and eBay were 1468 and 9571 respectively. This meant anyone who bought a Yahoo or eBay's stock was paying \$1,468 or \$9,571 for one dollar of their reported earnings. If the ratios were to keep up with the historical average price-to-earnings ratio of

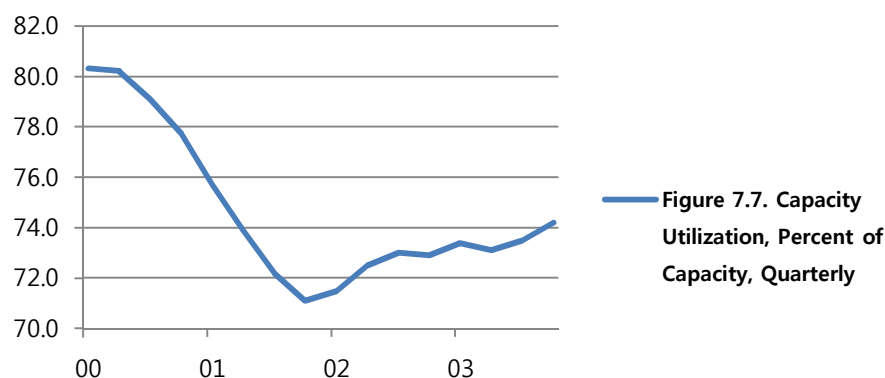
14 *without* any fall of prices, their profits would have had to increase more than 100 fold (for Yahoo) and 700 folds (for eBay) in the foreseeable future however implausible it would be (Henwood 1999, p.129). In effect, many of those investments were purely speculative gambles. Stock owners, in particular highly leveraged investors began recognizing that they were being exposed to extremely high risk (if stock prices decline, they would discover those claims are no longer valid and that they cannot pay their own debts unless they get cash from elsewhere) (Harman 2009, p.289).

Finally, from July 2000, a series of ever-worsening corporate earnings reports precipitated a sharp descent of stock markets and the whole economy rapidly lost vitality, both by reversing the wealth effect and by revealing the mass of redundant productive capacity and mountain of corporate indebtedness that constituted the dual legacy of the bubble-driven investment boom. With their market capitalization sharply reduced, firms not only found it more difficult to borrow, but less attractive to do so, especially since declining profits and the growing threat of bankruptcy led them to try to repair balance sheets overburdened by debt.

4. From Stock Market Bubble to Housing Market Bubble

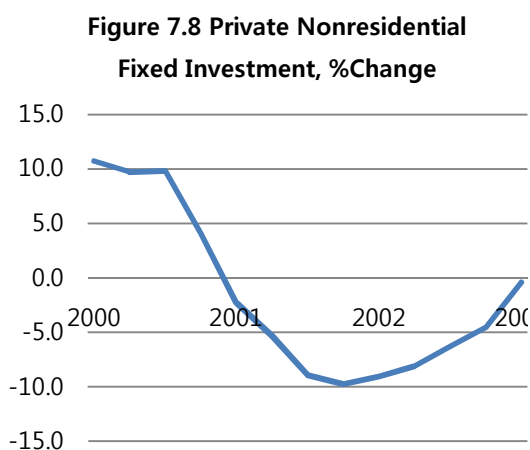
4.1. Collapse of the Stock Market Bubble and its Fallouts

As discussed earlier, the stock market boom was the main engine driving the US debt-driven consumption economy forward during the 1990s. Correspondingly, the sharp descent of the market was the primary force pushing it down over the early 2000s. The collapse of stock prices (i.e. the dramatically contracted value of collateral or decreased ability to borrow) directly meant the collapse of a debt-financed consumption boom for households as well as a debt-financed investment boom for firms. Without such bubble-induced spending excesses, that is, with insufficient demand for their products, it was as a matter of course that businesses found themselves much saddled with excess productive capacity. This can be seen from Figure 7.7 showing that until the end of 2003 the rate of capacity utilization remained quite low relative to that of pre-recession years.

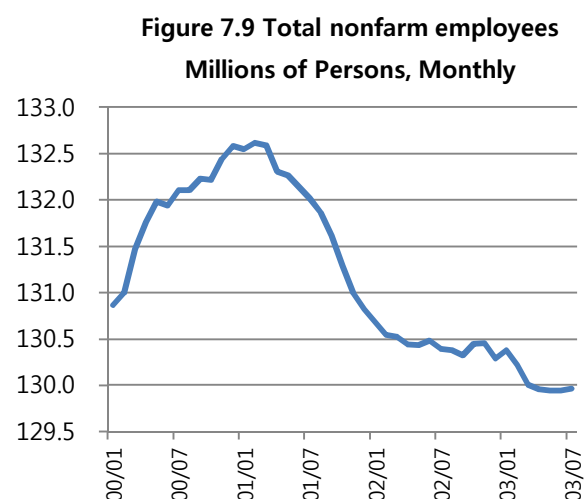


Source: FRED, Federal Reserve Bank of St. Louis: *Industrial Production and Capacity Utilization*, <http://research.stlouisfed.org/fred2/series/TCU>; accessed September 17, 2012.

Vastly over-supplied with plants and equipment, firms had little incentive to borrow more and step up capital accumulation, no matter how far interest rates were brought down by the Fed. On the contrary, having increased their indebtedness from 73 to 90% of output between 1995 and 2000, firms had every motivation to restore their balance sheets by saving more (indeed firms were net savers in 2002, 2003 and 2004, accumulating earned profits as cash) (FRB 2001), and their doing so made the investment environment even worse. Indeed, real non-residential expenditures on plant and equipment thus, as Figure 7.8 shows saw a deep slump, declining from an average annual rate of 10.1% between 1995 and 2000 to an average annual rate of *minus* 4.4% between 2000 and the middle of 2003.



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: <http://research.stlouisfed.org/fred2/series/PNFI> (accessed Dec 4, 2012).



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: <http://research.stlouisfed.org/fred2/series/PAYEMS> (accessed Sept 5, 2012).

Above all, firms radically reduced employment. With capacity utilization, as well as

investment, falling off so rapidly, they were forced to reduce the labour force fast enough to prevent a huge fall in productivity growth. In 2001, 2002 and the first half of 2003, employment in the non-farm economy fell by 2%, 2.5% and 1.5% respectively, after having increased at an average annual rate of more than 2% between 1995 and 2000. Between July 2000 and October 2003, employers eliminated 2.8 million jobs in the manufacturing sector. Simultaneously real hourly wages, which had grown 3.5% in 2000, were brutally cut back—to minus 0.1%, 1.2% and 0.3%, respectively, in 2001, 2002 and the first half of 2003 (Brenner 2004, p.68). As a result of the combination of reduced hourly wage growth and falling employment, the aggregate demand steeply fell, discouraging further investment and employment. All else being equal, these huge blows to consumer and investment demand, resulting from the mammoth reductions in employment, compensation and capital spending growth, would have entailed an inexorable and persistent downward pull on the economy. Indeed, although output growth, riding on recovering productivity growth, was relatively strong, unemployment remained high at 6.0% until June 2003 and the poverty rate kept soaring from a low of 11.3% in 2000, reaching 12.7% in 2004, long after output growth had resumed and the recession was officially over (Pollin 2006, p.106).

The situation was not unlike that of the early 1990s when a deep and long recession brought about widespread political unrest including riots. The period between 2001 and 2003, just like the years following the 1990-91 recession, was the moment when the US economy once again faced the grim reality that it had been living beyond its means, and the state must force its ‘excess’ people to accept lower wages, intensification of work, and poverty however politically implausible it is.

4.2. Credit-sustained spending boom

4.2.1. Return to Keynesian deficit spending

By the end of 2003, however, the economy surprisingly began accelerating with GDP leaping forward at an 8.2% annualized pace, the largest quarterly gain since 1984. Equally significant, job growth suddenly turned positive in September and October. The economy seemed suddenly to have taken off.

	2001	2002	2003-5	Total
GDP growth (%)	0.3	2.4	2.35	5.05
Consumption	1.67	2.15	2.02	5.84
Investment	-1.90	0.15	-0.26	-2.01
Government	0.65	0.81	0.83	2.29
Net exports	-0.18	-0.67	-0.51	-1.36

Investment includes residential and non-residential Source: U.S. Bureau of Economic Analysis, *GDP & Personal Income*, http://www.bea.gov/iTable/index_nipa.cfm (accessed June 14, 2012).

As can be seen from Table 7.6, one of the two factors pulling the economy out of the doldrums was government spending backed by the Fed's extraordinary monetary ease. While the monetary authority decreased its short-term rate from 6.5% to a post-1958 low of 1%, the government's fiscal position moved from a surplus of 1.8% of GDP or \$172 billion at the end of the Clinton administration in 2001 to a deficit of 4.8% or \$554 billion at the end of the new administrations' first term in 2004 (Table 7.7). The newly incumbent Bush Administration adopted a determined fiscal stimulus apparently modelled after that of the Reagan Administration, combining enormous tax cuts with huge increases in military spending. Taking a step forward, the government unlike Reagan's made no major cuts in other government programmes, rather it actually increased expenditures for health care, education and income security.

	Balance		% of GDP	
	Total	Federal	Total	Federal
2000	172.2	236.2	1.8	2.4
2001	25.3	128.2	0.3	1.3
2002	-322.7	-157.8	-3.1	-1.5
2003	-554.9	-377.6	-5.1	-3.5
2004	-554.9	-412.7	-4.8	-3.6
2005	-435.0	-318.3	-3.6	-2.6
2006	-384.1	-248.2	-3.0	-1.9
2007	-322.5	-162.0	-2.4	-1.2

Source: GPO, U.S. Government Printing Office, *Budget of the United States Government*, <http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=BUDGET&browsePath=Fiscal+Year+2006&isCollapsed=true&leafLevelBrowse=false&isDocumentResults=true&ycord=0> (accessed Oct 25 2012).

As a typical Keynesian tax reduction, the administrations' fiscal policies emphasized deficit-financed tax cuts as a way to stimulate aggregate demand, that is, to get money into

the hands of consumers and businesses. In promoting his plans, President Bush repeatedly appealed to this argument. His weekly radio address from May 24, 2003, was typical: “by leaving American families with more to spend, more to save, and more to invest, these reforms will help boost the Nation’s economy and create jobs. When people have extra take-home pay, there’s greater demand for goods and services, and employers will need more workers to meet that demand” (Mitchel and Castillo 2012, p.12).

The 2001 tax cut immediately reduced marginal income tax rates, and repealed the estate tax. In addition to reducing marginal tax rates, each tax cut also included a number of additional provisions. The 2001 tax cut, for example, included a one-time retroactive “tax rebate”: the Treasury sent checks (up to \$300 for singles and \$600 for married couples) to taxpayers who had filed their taxes in 2000. The 2003 bill included more rebates (putting about \$25 billion into people’s pockets in the third quarter of 2003—a massive \$100 billion on an annualized basis), extended the child tax credit, cash grants to the states to help cover the cost of education, Medicare and Medicaid, and expanded an investment incentive known as “bonus depreciation” worth more than \$114 billion, which allowed firms to write off equipment investments faster than the equipment wore out. In addition, the 2003 law immediately cut the top marginal capital gains tax rate for financial assets with the promise of phasing it out by 2008.

Given these measures the intentions of Bush’s tax policies seemed clear: making firms invest more, the rich buy more stocks and bonds, and households consume more, so as to reinvigorate productive investments or to re-inflate the stock market. Although it is questionable how much those tax-giveaways had direct effects on consumer and investment spending (cf. Mitchell and Castillo 2012), it seemed clear that the tax rebate at least helped receivers lessen debt burdens to some extent, that is, replaced private debts with government debts, thus making room for more borrowing and spending (e.g. while pre-tax personal income grew by 1% by the end of 2003, after-tax personal income grew by a stunning 7.2%) (Brenner 2004, p.89).

In terms of military spending, there is no doubt that the increased arms spending in the wake of 9/11 helped to pull the economy out of the recession, just as the ‘military

Keynesianism' of Reagan had before. The Bush administration's average annual official defence budget (2001-07) amounted to \$496 billion, up 31% from during Clinton's time in office (not even including emergency supplemental funding for wars in Iraq and Afghanistan and for anti-terrorism efforts which taken together were worth \$661 billion, surpassing the costs of the Vietnam War in real terms). Amounting to about 65% and 80% respectively of the total increases in federal spending, "official military expenditures for 2001-2005 averaged 28% of gross private investment and 42% of gross non-residential private investment" (Foster and Magdoff 2009, p.44). Without the enormous military budget financing production of arms-related industries, a huge increase in private investment would have been needed to keep the economy from falling into deeper recession. Of course such an increased demand without increasing overall productive efficiencies resulted in ever-ballooning trade as well as budget deficits (Harman 2009, p.273).

4.2.2. Household debt based on housing boom

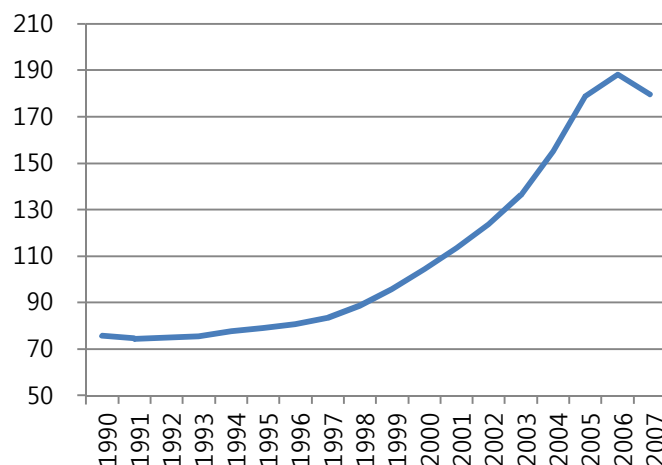
While the combination of huge tax breaks and giant increases in military spending provided a palpable temporary boost to the economy, by far the most powerful stimulus was once again growing household spending and its impact on investment. Between 2000 and the middle of 2003, the growth of real consumption spending amounted to 2.8% per annum, certainly stabilizing the economy between 2001-02 and finally promoting growth from the end of 2003. While real wage was rapidly declining with unemployment rates kept relatively high, not surprisingly the sustained growth of consumption was largely dependent upon growing household debts (along with less savings) which climbed to about 7% of GDP by 2003. As shown in Table 7.8, whilst businesses were trying to reduce debt burdens from 2001, households were not hesitant to increase their debt even in the middle of the recession.

Table 7.8. Growth of non-financial sector debt in the US between 2000 and 2007				
(% changes: annual rates)				
	Total	Households	Business	Government (Federal+States)
2000	5.0	9.1	9.3	-6.6
2001	6.3	9.6	5.8	8.6
2002	7.3	10.8	2.6	18.7
2003	8.1	11.5	2.5	19.2
2004	8.9	11.2	6.2	16.4
2005	9.5	11.2	8.5	17.2
2006	9.1	10.2	10.5	12.0
2007	8.6	6.8	13.0	14.2

Source: Flow of Funds Account, FRB 2008.

It may be asked, what enabled them to borrow so much? Of course, the Fed's dramatic reduction of interest rates must have played a role in fostering borrowing when "indebtedness became central in maintaining people's regular living standard" (Harman 2009, p.280). As was the case in the 1990s, however, what really drove the debt-financed consumption boom was the growing paper-value of assets enhancing both peoples' capacity and propensity to borrow and thereby to spend. This time, it was soaring house prices that made them apparently ever richer.

Figure 7.10. National Composite Home Price Index,
Index 2000 Q1 = 100, Annual, Seasonally Adjusted



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis:
<http://research.stlouisfed.org/fred2/series/USCSOMHPISA> (accessed Sep 17, 2012).

Figure 7.10 illustrates how fast house prices soared since 2000. Until 1995, housing prices increased at an approximately similar rate to consumer prices, so remaining roughly steady

in real terms. But between 1995 and 2000, the rise in the home price index exceeded the growth of consumer prices by more than 28.5 points—an unprecedented rise in real housing costs. Surprisingly, between 2000 and 2006 housing prices rose even faster than in those previous years—real home prices increased almost 80% in the period.

Signs of the advent of a "new era" in housing were everywhere. Housing construction was taking place at record rates. New records for real estate prices were being set across the country, especially on the east and west coasts. The huge appreciation of home values encouraged homeowners to extract equity from housing mainly by the refinancing of home mortgages (Forster and Magdoff 2009, p.35). During the period, “people were using their homes like an ATM machine, withdrawing cash by refinancing in order to supplement their wages” (Swann 2006, p.26). As a matter of course, the economy boomed on the basis of growing personal consumption and residential investments. The growth of residential investment (including purchases of home furnishings) amounted to 75% of total GDP increase during 2001-2002, and investment in private housing accounted for more than 30% of total private investment between 2003 and 2005, a level unprecedented since 1948 (Foster and Magdoff 2009, p.50). Reflecting such a trend, the household consumption share in GDP reached a record high of 71.1% in 2003 from the average rate of 67% during the period between 1975 and 2000.

In sum, the possibility of a deep recession was effectively blocked by the upsurge of lending to households, including the recipients of subprime mortgages. It created a demand for the construction and consumer goods industries – and via those sectors for heavy industry and raw materials- that would not otherwise have existed. As Harman points out, “US households must spend more than their incomes. If they fail to do so, the economy will plunge into recession unless something changes elsewhere”, and booming housing markets enabled people to be indebted to spend more (Harman 2009, p.288).

4.3. Origin of the housing bubble

While some Keynesian economists pointed out there was a housing bubble, mainly caused by psychological factors (‘the ebb and flow of mass consciousness and emotions’) and the

government's inaction in countering it (Shiller 2005), the dominant view among the general public and modern mainstream economists during the 2000s was to deny the existence of the bubbles themselves and to declare that what seemed like "bubbles" were really the result of market forces (high demands for houses) based on 'real' factors such as financial innovation, demographic features and productivity growth. Most people seemed to have agreed with the majority of economists, that there was no such thing as a housing bubble—housing prices, they said, "never go down" considering the strong demand in the market. This was essentially the view of Alan Greenspan and Ben Bernanke as well as government policy makers. In particular, Greenspan was aware of the possibility of a housing bubble, but he offered many reasons to suggest that it did not exist, and that if one did exist it would not be a major problem (cf. Greenspan 2002).⁵

Now it is a well-known fact that the bubble did exist in housing markets; the prices were raised by overextended credits without growing household incomes, and the government policies were responsible for the development. But the state's responses cannot be simply pointed out as the only source of the problems because the state's economic policies were adopted to evade devastating political and economic fallout deriving from deep slumps in the real economy, that is, growing pressure for liquidating past excesses including inefficient workers, an unavoidable result of the overaccumulation crisis. This section discusses how and why the state inflated the housing bubble, thus enabling people to borrow and spend more, and then examines what the limitations and contradictions of such policies were.

4.3.1. Jobless Recovery and Monetary Policy

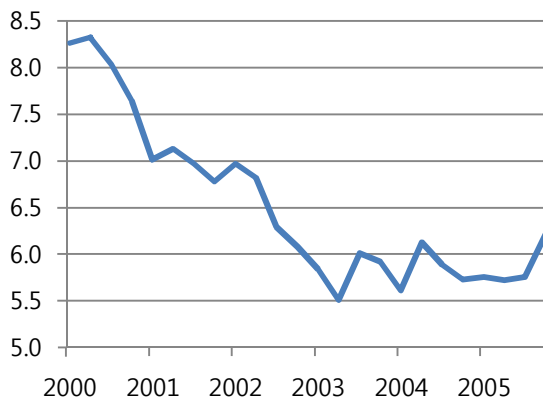
As noted, the Fed responded to the stock market crash in 2000-01 by dramatically cutting short-term interest rates from 6.5% in January 2001 to 1% by June 2003, which were negative interest rates when price inflation is taken into account (FRB 2002). By lessening the heavy debt burdens of firms, the Fed appeared to have tried to encourage brisker

⁵ Regarding the management of the housing bubble, there was an optimistic argument that as long as interest rates remained at low levels in close international cooperation the housing market would remain stable and there would be no possibility of the bursting of the bubble (Himmelberg et al 2005; Shostak 2003).

investment and job creation. However, as discussed above, firms remained reluctant to engage in productive investment by taking on more debt. In spite of this gap between monetary stimulus and productive activities, the Fed decided to hold the rate much lower, because high unemployment and poverty rates as well as ballooning government debts made it politically implausible to tighten monetary policy, while keeping rates low was justified by quiescent inflation rates (Rajan 2010, pp.107-108). In fact, it seemed that it was fear of deflation inevitably involving a profoundly adverse consequence like in Japan in the 1990s or the situation during the Great Depression that forced the Fed to stick to expansionary policies. Greenspan acknowledged it when he said, “in the summer of 2003, the Federal Open Market Committee viewed as very small the probability that the then-gradual decline in inflation would accelerate into a more consequential deflation. But because the implications for the economy were so dire should that scenario play out, we chose to counter it with unusually low interest rates. ... Given the potentially severe consequences of deflation, the expected benefits of the unusual policy action were judged to outweigh its expected costs” (Greenspan 2005b).

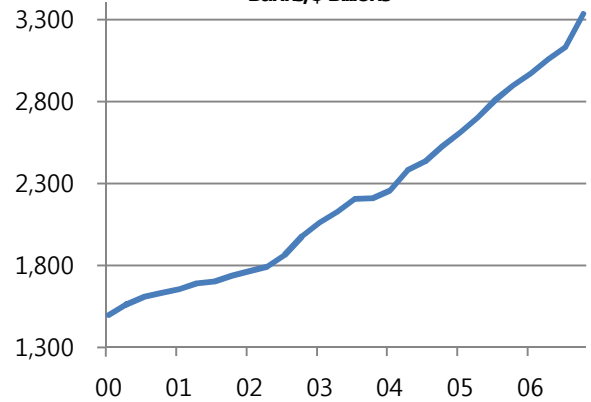
The ‘unusual policy actions’ based on fear of the possibility of deflation persisted; although the Fed finally started to raise rates in June 2004 in an apparent worry over asset price inflation, it did so with a pledge that short-term rates would be held low for “a considerable period” and would rise slowly at a “measured pace” (Backus and Wright 2007). This actually meant that short-term rates would remain at the exceptionally low point for a sustained period, and thus encouraged financial institutions to borrow short-term while making riskier long-term loans without hesitation even as the Fed was inching up short-term rates. With firms still saddled with excess capacities, the reduced risk premium on long-term loans (i.e. lowered interest rates on long term debt) naturally led to higher prices of risky long-term assets including housing rather than brisk productive investments. As Figures 7.11 and 7.12 show, indeed, between 2000 and 2005, the interest rate on 30-year fixed mortgages fell from 8.29% to 5.71%, and the amount of real estate loans at commercial banks reached \$3 trillion at the end of 2005, up from \$1 trillion in November 1994 and \$1.5 trillion in 2002 with house prices rising 71.1% in the same period. It follows that the Fed actually attempted to trade-off between economic recovery and the housing bubble.

Figure 7.11. 30-Year Conventional Mortgage Rate



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: <http://research.stlouisfed.org/fred2/series/MORTG> (accessed Dec 24, 2012).

Figure 7.12. Real Estate Loans at Commercial Banks, \$ Billions



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: <http://research.stlouisfed.org/fred2/series/REALLN> (accessed Dec 24, 2012).

Also, the Fed directly encouraged the growth of the bubble through a commitment to the so-called “Greenspan put option” (Stiglitz 2010, p.135; Palley 2005). In a 2002 speech, Alan Greenspan argued that although the Fed cannot recognize or curb an asset-price boom, it can “mitigate the fallout when it occurs and, hopefully, ease the transition to the next expansion” (Greenspan 2002). He was saying that the Fed would not raise interest rates in order to deal with asset price inflation but if matters went wrong, it would be willing to intervene to put a floor under asset prices. He was actually sending signals to speculators that if they gambled, the Fed would not limit their gains, but if their bets turned sour, the Fed would limit the consequences (Rajan 2010, pp.112-113). In fact, such an asymmetric policy direction called “riding the booms and cushioning the busts” had been implicitly but consistently pursued by the Fed since the 1987 crash (Iley and Lewis 2007, p.94); whenever stock markets plummeted ‘too far’ during a crisis, the Fed released huge amount of liquidity by lowering the federal funds rate to its utmost (often to zero or negative in real terms) and encouraging risk-taking to reboot stock markets. With the help of such a policy (now officially confirmed by the Fed), it was not surprising that leverage began to build up throughout the market fuelling the flames of asset-price inflation (Wolff 2010; Cooper 2008, p.17).

In sum, by adopting deflation insurance policies, the monetary authority actually provided

a channel through which firms and banks, reluctant to invest in production, could move their excess savings from the deflating stock market into the housing market, the so-called “great bubble transfer”(Pomboy 2002; Pollin 2006, p.115; Murphy 2008). As will be discussed, in addition to the policies of the Fed, the administrations’ mortgage policies helped direct all the new credit money into the housing bubble.

4.3.2. National homeownership strategy: affordable housing through affordable debt

Both the Clinton and Bush administrations were eager to expand homeownership by broadening access to easy housing credit. It was considered a cure-all addressing political and economic problems deriving from low-real wage, high unemployment, growing poverty and economic inequality (Rajan 2010, 39). Indeed, it can immediately achieve many socio-economic goals at the same time without political resistance because the costs all lie in the future. It pushes up house prices, making households feel wealthier, and allows them to finance more consumption. It creates more profit and jobs in the financial sector as well as in real estate brokerage and housing construction. Providing debt-financed housing is also an effective tool for transforming the poor working class into individuals who are responsible for debt-repayment or afraid of losing their wealth, rather than letting them be an uncontrollable mass without any responsibility to society, and anything to lose. In 1995 President Clinton emphasized the socio-economic importance of homeownership by saying that “expanding homeownership will strengthen our nation’s families and communities, strengthen our economy, and expand this country’s great middle class” (HUD 1995, quoted by Rajan 2010, p.36). Also, emphasizing the political aspect, that is, disciplinary effects of homeownership expansion among low-incomers, Bush pointed out: “if you have something, you have a vital stake in the future of our country. The more ownership there is in America, the more vitality there is in America, and the more people have a vital stake in the future of this country”.

The major task of the government for this goal was “removing barriers to mortgage financing for starter homes” deriving from the fact that private lenders are naturally unwilling to making long-term riskier loans to low-income home buyers with relatively

low interest rates (Action 11 HUD 1995). The practical means for the goal was providing “subsidies to reduce down-payment and mortgage costs” (Action 36) through the operations of Fannie Mae and Freddie Mac, the government-sponsored enterprises (GSEs) under the direction of HUD (HUD 1995, Moseley 2008, p.10, Wolff 2010, Beitel 2008). Fannie Mae and Freddie Mac bought mortgages in particular those for low income home buyers, thus allowing the banks (and brokers) they bought from to go out and make more mortgage loans with almost no risk of losses (both interest rate risk and default risk). They then packaged pools of loans together and issued mortgage-backed securities (MBSs or "agency debt") on credit markets. The securities that the agencies sold were widely perceived by investors to carry an implied government guarantee, which thus enabled Fannie and Freddie to raise money at a cost just above the rate of the Treasury bonds (Thornton 2006, pp.18-19). In this way (‘securitization’), financial assets which bear low-risk relative to stocks/corporate bonds and high-return relative to government bonds were created. With this fantastic financial instrument, poor home buyers could borrow at lower rates and looser mortgage underwriting standards (e.g. the average down payment declined from 10% to 3% by the early-2000s) while banks could benefit, without any risks, from commissions deriving from brokerage between borrowers and MBSs issuers (Blumen 2002). MBS issuers (Fannie and Freddie) could also benefit from commissions while investors in those securities were offered higher returns than they would receive from T-bonds without worries about default. Lastly, while all made money from a boom in low-income housing construction and lending, the government and firms also benefited from political support and higher domestic demand respectively.

Setting the stage for a boom, the amount of funding the government required the agencies to allocate to low-income housing was steadily increased. After being set initially at 42% of assets in 1995, the mandate for low-income lending rose to 50% of assets in 2000 and further to 56% of their assets in 2004 (Calmiris and Wallison 2008). As more money from the government-sponsored agencies flooded into financing or supporting low-income housing, the private sector (mainly hedge funds and institutional investors) joined the party. While households were enjoying growing wealth, banks and brokers did not miss the chance of making money from low-risk and high-return subprime mortgages. As the erosion of lending standards pushed prices up by increasing demand, construction

industries also rushed to build low-cost housing that would certainly increase in price (Coy 2008). As a result, home ownership rates continued to increase from 64.5% in 1994 to 69.2% in 2004 while household mortgage debt grew 75% from 2000 to 2005, magnifying the amount of systemic risk. As noted, this housing boom was the primary force pushing the US economy forward during the 2000s. The boom produced first a debt-financed consumption boom for households then a debt-financed investment boom for corporations. It also created a highly attractive investment location for foreigners, whose inflow of funds into the US market provided a major demand-force pushing up house prices as well as pushing down interest rates.

4.3.3. East Asian support for the Dollar

As the stock market declined from mid-2000 (and thus, without prospective capital gains plus exchange gains), the rest of the world's private investors began to see US assets as decreasingly attractive. Between 2000 and 2001, new equity purchases by foreign investors declined by 20%, from \$482 to \$287 million. The fall in foreign purchases of bonds and other US assets was less steep in 2001, but started plummeting from the first quarter of 2002, with overall foreign investment in US assets falling by more than 60% in the first months of 2002 compared to the same period of 2001. These trends of fleeing US assets were mainly led by Europeans. Having peaked in the year ending in October 2000 at \$115.6 billion, Eurozone purchases of US equities collapsed to just \$4.9 billion in the year ending in April 2003 (FRB 2004). The result was an inevitable downward pressure on the dollar, intensified by soaring interest rates in Europe and the hyper-expansionary policies pursued by the Fed. Between early 2001 and the middle of 2003, the dollar fell by 37% against the euro, 27% alone in the year ending June 2003. Whilst the decline of the dollar did not bring about any improvement in the US trade and current-account deficits (partly because of worsening recession in Europe and partly because of a fall in US productivity growth), the expectations about the future value of the dollar made it even less attractive to hold US stocks and bonds. There was a growing fear of the possibility of capital flight. Obstfeld and Rogoff warned the dollar could fall by as much as the Mexican peso did in 1995 (Tabb 2001). Were the dollar to continue to fall, the Fed would be faced with an agonizing choice: either to let the currency drop and risk a wholesale liquidation of US

assets by foreign investors (worth \$7 trillion by the end of 2001) in the expectation of continual depreciation—which could wreak havoc in asset markets and set off a serious run on the dollar—or raise interest rates to support the dollar and risk pushing the domestic economy back into recession or deflation at all political costs (Brenner 2004, pp.86-87). The dilemmatic situation was similar to that in the mid-1990s when the reverse Plaza Accord was agreed. This time, the dilemma was solved not by an explicit agreement but by implicit policy-cooperation between the US and others in particular East Asian countries whose economic growth also depended upon US consumption growth (Helleiner 2008, p.363).

Since the beginning of 2002, when the dollar started depreciating, all East Asian currencies appreciated against the dollar considerably less than did the euro owing to Asian central banks competitively rushing to buy up dollar-assets. Between December 2001 and June 2003, East Asian countries (China, Japan, Korea, and Taiwan) spent \$10 billion every month in purchasing US Treasuries with overall East Asian dollar reserves reaching \$1.6 trillion-70% of the world's total (Morrison and Labonte 2012, p.6). In particular, China and Japan intervened massively, covering nearly 55% of the US current account deficit in 2003. Far beyond simply building up a war-chest of precautionary reserves with respect to the prospect of future financial crisis, East Asian governments were evidently and desperately intervening to prevent the dollar from falling vis-à-vis their currencies (McKinnon 2004, p.356; Summers 2004, p.7). For them, a strong dollar meant lower relative unit labour costs in their countries as well as higher commodity prices (effective demand) in the world (US) market, which were the key foundation on which their economic and political stability had long been based (cf. Harman 2009, p.282). Thus, it was worth pouring billions of dollars in dollar assets even in the midst of the freefall of its value.

With the help of such heavy interventions, the US monetary authorities regained the ability to pursue incompatibles: underpinning the value of dollars in spite of the low interest rates, stagnant stock markets and expanding trade deficits (Brenner 2004). While the stable conditions for US expansionary policies were underpinned by East Asian central banks in this way, private investors also began recycling the dollar inflows; in particular German

banks and Japanese insurance companies rushed to buy seemingly safe yet high-yielding US mortgage backed securities (issued by Fannie Mae and Freddie Mac) with the dollars their customers deposited (Rajan 2010, p.109). Table 7.9 shows this trend; the rapid growth of official holdings of US assets by overseas governments during the 2000-04 period was followed by the gradual growth of private capital inflows from 2004 (Jackson 2010, p.5). Surprisingly, in 2005 nearly 80% of the total cross-border savings was heading to the US (Iley and Lewis 2007, p.11).

	95-00	2001	2002	2003	2004	2005	2006
Total Net Financial Account	1,230	400	501	533	532	701	809
Total Net Official	317	23	113	280	402	279	496
Total Net Private	913	378	388	253	130	422	313

Source: U.S. Bureau of Economic Analysis, *International Investment Position*, <http://www.bea.gov/international/index.htm> (accessed June 1, 2012).

As both the US and Asian state managers expected, this influx of funds onto US financial markets (by mid-2006 gross US assets held by the rest of the world reached \$7.7 trillion, or 67% of GDP, compared to \$3.5 trillion, or 46% of GDP in 2000)(FRB 2008) in particular the booming mortgage-backed securities directly or indirectly fuelled ongoing asset-price bubbles and consumption-led growth by pushing down both the cost of borrowing and the prices of imported goods in the US. Acceleration of consumption in turn gave a major fillip to what appeared to be an increasingly powerful boom, while the rise in US imports and current-account deficit helped pull the East Asian economies out of their economic downturn.

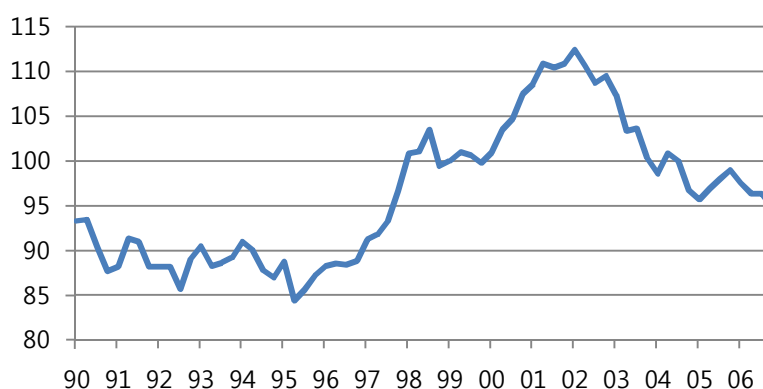
5. Contradictions of Bubble economy

As noted, without Chinese and other Asian authorities' purchases of dollars, the hyper-expansionary policies pursued by the Fed and the Bush Administration would, almost certainly, have issued in a major fall in the dollar, leading to declining asset prices and rising borrowing costs that could plunge the US, East Asia, and the rest of the world economy back into deep recession. However, such preventive policy actions (i.e. the

international mechanism of dollar deficit recycling) were not a solution to a crisis but a means of speculative deferral of forthcoming bigger crises, given the fact that the huge injection of credit was growing the US' obligations to the rest of the world at the same time as curtailing its ability to honour those obligations (undermining the conditions of production in the US by supporting a strong dollar, that is, keeping the relative costs of US-based production or the capacity of American workers to consume high).

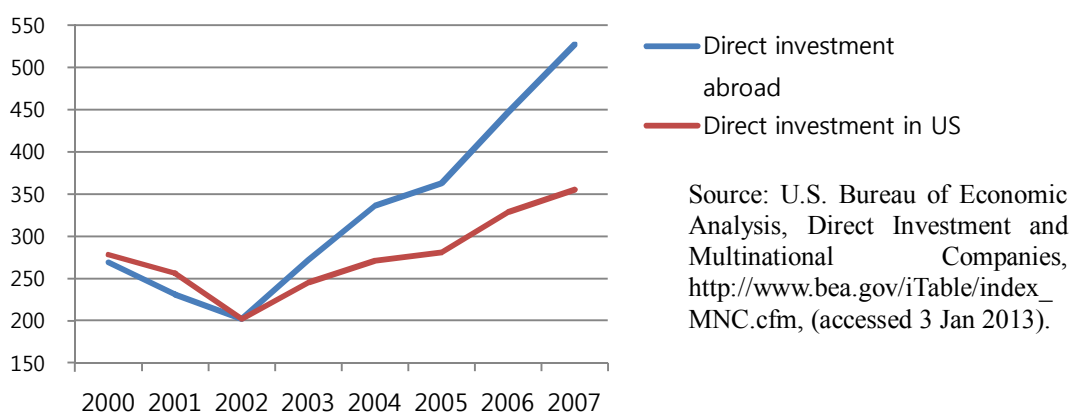
Figure 7.13. Real Trade Weighted U.S. Dollar Index

March 1973=100, Quarterly, Source: FRB



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: <http://research.stlouisfed.org/fred2/series/TWEXBPA> (accessed Jan 10, 2013).

Figure 7.14. US Net Direct Investment between 2000 and 2007



Indeed, as Figure 7.13 shows, because of the influx of funds from surplus-running countries the overall trade-weighted real value of the dollar (reflecting the trend of relative real unit labour costs) did not fall, but actually rose in spite of the dollar's steep fall against the euro between 2000 and 2003, and although it began falling from 2002 because of stagnating real wages along with high productivity growth (that grew at 2.6% per annum

from 2000-2007, which was 0.5% higher than that of the 1990s), it did remain well above the 1997-1998 levels which had significantly eroded the price competitiveness and market shares of US-based producers. As a result, while the overall American economy grew based on the growth of domestic consumption-reliant industries (finance, retail, construction etc.), the trend of widening trade deficits (overseas borrowing) further accelerated to an unprecedented level: to more than \$700 billion or 6% of GDP in 2006 (Eichengreen 2008, p.213). Also, as Figure 7.14 indicates US firms whose operation was not tied to specific regions were increasingly eager to invest in factories overseas, which resulted in net direct investment amounting to a historical high of -1.0% of GDP, more than \$135 billion per annum in the mid-2000s. Lastly, just as was the case in the 1990s, the trend toward de-industrialization accelerated; the share of employment in the manufacturing sector further declined from 13.1% in 2000 to 10.7% in 2005 with the proportion of workers pushed into low-wage, precarious and domestic-consumption-dependent jobs in service and construction sectors continuing to grow from 86.5% in 2000 to 88.9% in 2005) (Mishel et al 2007, p.169).

Unsurprisingly, this self-undermining development of the debt-financed bubble economy, that is, the growing separation between credit expansion and productive activities, raised the possibility of a run on the dollar followed by high interest rates. Some argued that as long as surplus-running countries, having a great stake in the stable value of the dollar, continued to underpin the global mechanism of dollar deficit recycling, there would be little risk of destructive adjustment processes triggered by a dollar crisis (Himmelberg et al 2005; Shostak 2003). What such an optimistic view did not see was that the ballooning external deficits were ultimately a reflection of the rising domestic private indebtedness that was rapidly growing without corresponding income growth.

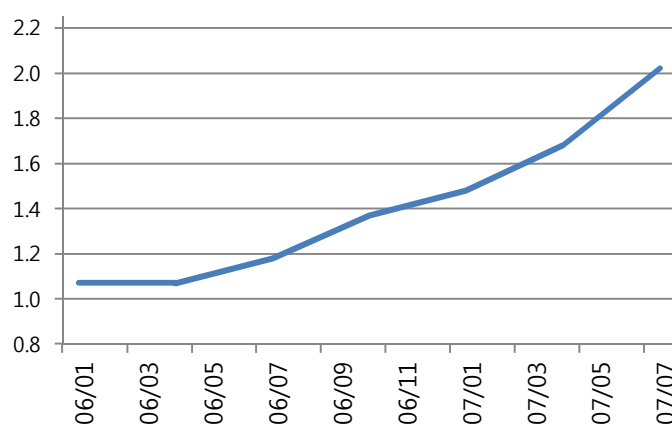
Table. 7.10. Household Outstanding Debt and Debt-service payment as a percentage of Disposable income (%)				
	Mortgage	Consumer debt	Total	Debt service payment
1990	58.4	19.2	83.9	11.9
1995	61.1	21.4	89.1	11.4
2000	65.8	23.7	95.6	12.2
2005	97.9	25.5	130.1	13.6
2007	103.6	25.1	136.1	14.0

Source: calculated from data of the Flow of Funds Accounts, FRB 2008.

An IMF (2006) study estimated that the house price to income ratio (average house price to average incomes) reached a record high, at approximately 14% above its 25-year average. It meant that what had underpinned ever-increasing house prices were ever-expanding household debts, not increasing household incomes. Indeed, as Table 7.10 shows, in 2005, the ratio of total outstanding debt (mortgage plus consumer debt) to individual disposable income reached an unprecedented level of 130.1%, up from 95.6% in 2000 and 89.1% in 1995. The trend accelerated because of the greater expansion in mortgage lending to low income borrowers (e.g. subprime loans expanded more than twice as much as prime loans did between 2002 and 2005) (Mian and Sufi 2009, p.1449). In 2006, with little or no income growth among wage earners American households were spending as much as 14.5% of their disposable income solely on servicing debts (Iley and Lewis 2007, p.10).

For a while, the increasing debt service burden of homeowners was able to be offset by gains from rising house prices, that is, the practices of ‘equity extraction’ using second mortgages. In other words, there was little or no correlation between debt burden and house prices thanks to a growing number of new homebuyers induced by easier access to mortgages. The underlying simple problem was that the pace of house price growth was certain to slow down due to the limited number of prospective homebuyers (US residents who need houses to live) in the context of the unlimited supply of new homes, and thus at some point the growing debt service burden would not be able to be covered by equity extraction. From that point, the existing debt-ridden homeowners would begin to sell off their homes, triggering a plunge in the market, in order to sustain their living standards, that is, to pay interest. Ultimately, without a rise in incomes, at some point house prices inflated by debt expansion were destined to plummet with the flood of defaults bursting forth as banks would all begin rushing to repossess collateral.

Figure 7.15. Delinquency Rate On Commercial Real Estate Loans (2006-2007) (%)



Source: FRED, Federal Reserve Economic Data, Federal Reserve Bank of St. Louis: <http://research.stlouisfed.org/fred2/series/DRCRELEXFACBS> (accessed Jan 10, 2013).

Despite Greenspan (2005a) alleging that conditions in the housing market were “encouraging”, and the new Fed chairman Ben Bernanke (2006) arguing that “lending standards are generally sound ... real estate appraisal practices have improved”, already by the end of 2006 the growth of household debt fell more than 30% while house prices stopped soaring and, as a result the delinquency rate and foreclosures were increasing dramatically (Forster and Magdoff, 2009, p.51). The bursting of housing bubbles would not be a problem only for debt-ridden households and banks. Considering low income borrowers had long been supported by government sponsored agencies (e.g. they were estimated to be exposed to about \$2.7 trillion or 59% of total subprime loans in 2007), the government was also to get into financial trouble while the overall economy would face a plummeting aggregate effective demand so far underpinned by housing bubbles. At this point, injecting liquidity, i.e. increasing the supply of credit money, would be a meaningless attempt to defer a crisis unless real interest rates fell significantly below zero.

6. Conclusion

This chapter has explored the contradictory development of the US economic growth, with special attention to the causes and effects of economic policies, between the mid-1990s and the mid-2000s during which it emerged as the debt-ridden ‘world consumer of last resort’. As discussed, since the 1970s, the US economy had been under growing pressure of over-

accumulated capital. The pressure, revealing itself at every recurrent deep recession, pushed the state to make its inefficient producers and workers pay for 'excesses' the economy had built up by accepting bankruptcies, lower wages, longer and more intense work, and widespread poverty at any political costs. The existence of this crisis of accumulation has been empirically proved in this chapter with the economic indicators such as the steadily falling capacity utilization rates, unemployment/underemployment rates remaining exceptionally high, and increasing absolute/relative poverty rates coupled with continuously falling real wages until the mid-1990s. Faced with possibilities of a serious crisis, however, state policy makers chose to sustain existing levels of production and employment, and thus placating rising social tensions, by means of credit-expansion based on asset market booms.

While the government and monetary authority actively created an environment favourable to investment in asset markets (i.e. stock markets in the second half of the 1990s, and then housing markets in the 2000s) through specific monetary-fiscal policies coupled with international policy cooperation, capitals (at home and abroad) liberating themselves from the worsening 'real' economy where profits through expanded production were less and less guaranteed were increasingly finding their way into the attractive asset market, in turn boosting the prices of assets. The soaring asset prices then made the investors: firms and individual households ever richer on paper, thus enabling them to borrow more and spend more. Stimulated by the growing consumption demand, more jobs were created in sectors such as financial services, commercial trade, real estate, leisure, insurance, with the tendency of declining wages to stop, which, along with other rosy aspects of the powerful boom, in turn justified the ever-rising prices of assets. The economic boom based on the debt-driven asset market bubble has been empirically examined with the relatively high unit labour costs (upward pressures on the overall trade-weighted real value of the dollar), rapidly shrinking world market shares for manufacturers operating in the US, and the changing national industrial structure in favour of non-tradable service-finance sectors. The contradiction of the boom was that the asset prices were rising regardless of, or more exactly, at the costs of the real economy (i.e. profitability of productive investments). In fact, the more prosperity sustained by the debt-financed asset market booms, the worse the condition of production (due to the increased relative costs of production in the US coupled

with the enhanced productive capacity abroad), and the less the capability to service debts. In other words, the boom was a fictitious prosperity based on the growing separation between financial accumulation and productive accumulation. This has been demonstrated with the empirical data showing the ever-rising debt-to-GDP ratios, in particular the growing household debt and debt-service payment as a percentage of disposable income until the year 2007.

Over a couple of decades in the US, as Harman put it, “credit expansion acted like a drug for the system, seeming to give it great energy and creating a sense of euphoria, with each brief hangover being followed by a further dose until the metabolism as a whole suddenly found itself being poisoned” (Harman, 2009, p.280). The US’ ever-rising current-account deficits and the growing reliance on cheap imports and credits made in China were an expression of this contradictory development of the debt-ridden bubble economy. Based on the findings of this chapter and those of the previous chapter on China’s growth, the following chapter will finally attempt to interpret the emergence of Sino-American global imbalance itself from a Marxist perspective.

Chapter 8. Understanding of the nature of the Sino-American imbalance

By drawing on the findings of chapters 6 and 7, this chapter provides a Marxist interpretation of the Sino-American imbalance that is distinct from existing views. In the course of developing a comprehensive interpretation, this chapter explores three main points essential to understanding the nature of the Sino-American imbalance: the fundamental cause of the imbalance, the way in which the imbalance was sustained, and the consequences the imbalance entailed. Each point will be explained in the form of a counter-argument against the conventional interpretations that were introduced in chapters 2 and 3.

This chapter is comprised of three sections. The first section looks at the Keynesian argument that attributes the imbalance solely to the pursuit of the ‘wrong’ policies. Against this view, it is argued that these so-called ‘misguided’ policies amounted in fact to rational economic policy decisions by the states in the face of a crisis of accumulation and social strife. Thus, it is argued in this chapter, the root cause of the imbalance should be located in the crisis-tendency inherent in the capitalist mode of production rather than in the conduct of economic policy. This argument is laid out with an examination of the political economic context in which the imbalance-inducing policies were first employed and then adhered to for so long in spite of the growing instability caused by the macroeconomic imbalances. It is argued, in the second section, that critical IPE’s notion of structural monetary power does not fully explain the character of the Sino-American global imbalance, nor does the concept of hegemonic transition suggested by World System analysis. In distinction to those approaches tied to the concept of inter-state rivalry, it is argued here, that the imbalance was a manifestation of the crisis-ridden character of capitalist social relations. Specifically, this thesis sees it as a form of international cooperation between the global centre of production (China) and the global centre of circulation (the US), which were mutually dependent on each other for sustaining accumulation within their own territories. This argument is underpinned by an exploration of the manner in which a potential global crisis following the burst of the US stock market price bubble in 2000 was managed and overcome through de-facto policy cooperation between China and the US. The third section of this chapter argues that the cooperation in

the perverse form of a deepening imbalance was fraught with contradictions. Rather than being a process of efficient resource allocation through the integrated global financial markets promising an ‘inter-temporal utility maximization’, as argued by neoclassical approaches, the imbalance fed into itself with potentially disastrous consequences. The section explores the inexorable problems of a world economy founded upon the sustained imbalanced growth that manifests itself as overinvestment and overproduction in China and overextension of credits in the US.

Combining the three points explained together, this chapter concludes by arguing that, at its foundation, the Sino-American global imbalance was an expression of the tendency to overaccumulation and crisis inherent in the capitalist mode of production, mediated and reinforced by mutually complementary economic policies of the US and China, each seeking to sustain domestic accumulation and social reproduction.

1. The socio-economic context of the Sino-American imbalance

Analysing the Sino-American global imbalance, Keynesian-inspired economists focus attention on each government’s ‘misguided’ policies that caused domestic imbalances between aggregate consumption demand and productive capacity. Specifically, they point to the Chinese government’s absurd pursuit of export-investment-led growth that had long repressed the households’ disposable income growth while criticizing the US government and the monetary authority’s reckless sticking to expansionary policies leaving the excessive debt-financed spending sprees to take their own course. Their focus on the imbalance-causing ‘misguided’ policies is accompanied by an emphasis on ‘appropriate’ rebalancing policies aimed at realigning national consumption demands to productive capacities. By means of a set of rebalancing policies (e.g. monetary-fiscal policies coupled with demand exchange rate adjustments) they assume that the crisis-ridden imbalanced growth could be adjusted leading to a more stable balanced economic growth both in China and the US.

The merits of this perspective are that it well recognizes the possibility of crisis involved in the development of the imbalance and the specific role of government policies in forming the domestic imbalances. The limitation of Keynesian perspectives is that they do not

seriously explore the question of *why* each government adopted such ‘imbalance-inducing’ policies in the first place and why there had been no serious attempts by the states at rebalancing the economic structure in spite of the growing possibility of a future crisis. Instead of raising the question of a wider political economic context, Keynesians simply attribute the ‘misguided’ policies to the policy makers’ misjudgement or myopia, and then assume that a certain combination of policy instruments, if employed properly as dictated, could steer the economy back into balanced growth free from crisis.

Exploring the historical-social context in which such policies were employed, it is revealed that what made each government employ the policies was not policymakers’ recklessness but the necessity of sustaining accumulation in the face of an imminent crisis. Likewise, rebalancing policies were evaded not because of short-sightedness of the governments but because they as such would inevitably provoke a destructive economic crisis (due to a devaluation of capital so far accumulated in the form of productive capacity or credits), rather than ‘preventing’ a crisis. Consequently, the fact that the imbalance was formed and developed by state policies does not mean that the cause of the imbalance was the policies as such; the real cause was the crisis-tendency inherent in the capitalist mode of production to which states had to respond with what Keynesians call ‘misguided’ policies.

1.1. The socio-economic context of China’s imbalanced growth

A set of market-oriented restructuring policies radicalized from the early 1990s was the Chinese state’s response to the failure of so-called ‘state capitalism’ that existed from the Maoist era until the late 1980s. Under state capitalism, the party-state as the sole owner of means of production was given the power to directly impose work on the whole working population in the country according to a central plan. But there was a price to pay for the state’s direct control over the workers: the direct responsibility for the subsistence of all workers, which turned out increasingly difficult for the state to bear. As more and more workers were employed, the party-state had to accordingly ensure higher labour productivity to prevent a drop in living standards of workers, while there were little means to do so without directly confronting workers and thus risking political instability. The state was on the horns of a dilemma; it had to either let productivity growth remain low

and real wages continue to fall or escalate bureaucratic repression for higher productivity growth. Whatever way taken, of course, growing political tension over the existing system of class dominance was unavoidable. It was this crisis of accumulation that forced the government to embark on a radical reform, making itself free from the direct responsibility for workers' subsistence by relinquishing direct control over them. Indeed, the core of the restructuring process ranging from dissolution of work units (*danwei*), privatization of state-owned firms, and commercialization of banks to liberalization of trade was imposing the freedom of liquidation and redundancy upon inefficient firms and workers by severing their financial relations with the state. It was a governing strategy of depoliticisation, making class relations of production private relations between employers and employees rather than a political matter that the party-state must take direct responsibility for.

With the reform process on track, there emerged two contrasting economic trends: on the one side, there was a growing reserve army of labour due to the mass-layoffs of SOEs and tens of millions of migrant workers being set free from the rural collective economy and basic public services; on the other side, there was a phenomenal investment boom including FDI influx induced by the world's most favourable conditions of exploitation and the resultant opportunity for surplus profits (a large difference between the cost of production in China and the selling prices on the world market). These dual trends, by deepening the imbalances between consumption demand and productive capacity, transformed the economy into a typical export-investment oriented one (see Table 2.1). Indeed, while the dual trends generated a downward tendency of domestic price levels¹, economic growth as a whole became more and more dependent upon exports and investment closely linked to export sectors. For example, in 1997 a 21% year-on-year growth in exports accounted for about one-third of real GDP growth in that year; a 38% jump in exports accounted for nearly four-fifths of China's economic growth in 2000. According to some estimates, while the share of exports in GDP was 26% in 2002, roughly 74% of China's real GDP growth that year was attributable to exports with the remaining

¹ The stagnation of mass working-class income and consumption demands relative to the vastly expanded productive capacity generated a steady downward trend in domestic prices. Indeed, the inflation rate steadily declined from 24% in 1994 to 8.3% in 1996, and further down to -1.4% in 1998. From 1998 the rate remained below zero until the mid-2000s (Hart-Landsberg and Burkett 2005, p.72).

26% was indirectly due to state spending and FDI inflows (Roach 2003 cited in Hart-Landsberg and Burkett 2005, p.74).

Having doubts as to the sustainability of such precarious unbalanced growth, Keynesian-inspired economists have argued that the state was required to employ policies countering the trend, lowering investment and net exports to more 'sustainable' levels (about 30-35% of GDP and 0-5% of GDP respectively) at the same time as raising the share of final consumption in the economy by about 20% (to 65% of GDP) (Lardy 2012, p.51). Specifically, rather than expecting the so-called trickle down effects that the latter trend (rapid growth driven by soaring exports and investments) would sooner or later counter the former trend (growing unemployment and dampened real wages), they have emphasised the importance of a package of policies aimed at rebalancing the economic structure towards a more domestic-consumption-based economy, including active income redistribution (from the sector of large exporters to the household sector), a substantial appreciation of the renminbi, and enforcement of stricter regulations on the labour market etc.

Considering that the possibility of an economic crisis was indeed growing along with the ever-deepening imbalance, it seems Keynesian economists' views are not unreasonable. But a closer look at the development of the imbalance reveals what they did not see: the simple fact that such policies, by raising costs of exploitation, would put pressure on the profitability of capitals operating in export-related sectors (the growth engine of the economy) and thus on the existing level of national income itself that is supposed to be distributed. In response to any pressures on existing profit rates, some capitals in the sector would struggle to boost productivity growth, and thus preserve their own value, by discharging workers (i.e. replacing workers with new machines) or by increasing offshore outsourcing, while others would increasingly transfer funds into speculative financial markets, leading to an asset market bubble. Whatever the form of response taken, thus, the pressure of devaluation on the growth engine of the economy would repress the productive activities of the economy as a whole. In that case, with a diminishing source of national income (productive accumulation), it would be inevitable that growth of household and government incomes necessary for stimulating domestic-consumption-based industrial

growth is necessarily largely reliant upon public or private debt expansion rather than ‘distributed-income’. For this reason, it can be said that Keynesian rebalancing interventions are likely to cause economic growth based on potentially irremediable debt accumulation or a crisis-ridden ‘bubble’ as seen in East Asian NICs on the way to the financial crisis of 1997, rather than leading to what they call ‘an inward oriented balanced economic growth’.

Indeed, the Chinese economy from the early-2000s, along with growing pressure on profits due to the rising wages forced by intensifying workers resistance² and ever-falling prices on the world market, was already witnessing a burgeoning speculative boom in the real estate sector, acceleration of mechanization processes along with a series of moves of labour-intensive production lines to South Asian countries where wages were even lower than in China, and a precarious expansion of public and private debts without concomitant income (wage and tax) growth. These trends pressurized the government to promote policies compensating the falling profits of the growth engine (exporters) through such means as provision of preferential tax/tariff rates, continued devaluation of the renminbi, and further privatization and liberalization of SOEs along with the entry into the WTO, rather than an active adoption of rebalancing policies that could repress profits even further and thus precipitate the trends toward a bubble economy. In this sense, the Chinese government’s maintaining export-led growth was not due to the absurdity of policy-makers; it was a *rational* response to the absurd capitalist mode of production.

1.2. The socio-economic context of the US’ imbalanced growth

The two factors Keynesian economists identify as the cause of imbalanced growth in the

² Chinese workers, especially those of the so-called “new generation of migrant workers” (China Labour Bulletin 2011, p.13), began to refuse to be docile any longer; they began to actively require ‘just’ and ‘fair’ wage relations in their favour. Through waves of strikes and mass demonstrations, challenges to growing income inequality were growing in size and radicalizing in form, becoming an important part of social unrests. Under the pressure of intensified workers resistance, the CCP leadership had no choice but to employ more accommodative labour policies (so-called policies for ‘harmonious development’) including those allowing minimum wages to increase faster than before. For examples and statistical data on labour disputes see CLB Research Report No.5 (2007, pp.15-24) and Cai and Wang (2012, pp. 11-17).

US from the mid-1990s – the American government policy combination of the strong dollar and low interest rates – were first adopted as a response to the deepening crisis affecting both the US and other countries across the world at the time. By the early 1990s, the US economy was still under the influence of the late-80s' stock market crash. With the consumption boom underpinned by the debt-financed asset market bubble absent, the vastly expanded industrial base created by the previous boom was rendered excessive. While heavily exposed and inefficient firms were forced into liquidation, other firms continued to discharge 'excess' workers in order to preserve their own value, further augmenting the decline in overall economic activity. With unemployment and poverty rates ever-increasing, social unrest was worsening and became uncontrollable as seen in the 1992 LA riots. Meanwhile, the steady fall of the dollar vis-à-vis other major currencies, the tendency first promoted by the Plaza Accord of 1985 and then accelerated by the outflow of funds following the burst of the bubble in the late 1980s, was hardly hitting the then leading exporter Japan, encouraging the Japanese investors to sell-off their accumulated dollar assets. It was in this context of an inextricable crisis of accumulation growing at home and abroad that the US government made a policy turnaround in the direction of an unbalanced but growth-oriented environment marked by a strong dollar and low interest rates.

Initiated by the reverse Plaza Accord of 1995 and accelerated by the large transfer of capitals seeking a 'safe haven' away from developing countries' currency risks in the mid-1990s, the financial environment of the strong dollar and low interest rates brought about two contrasting macroeconomic trends characterizing the US economy's structure as a debt-financed consumption-demand-reliant economy. First, it accelerated the trend of deindustrialization as the strong dollar significantly eroded the price competitiveness and market share of US-based producers.³ In response to the pressure on the market share and profit rates, some capitals, by means of debt-expansion, struggled to increase productivity by replacing workers with more advanced means of production, while others began

³ Due to the high rates of labour productivity growth along with the long-stagnated wage growth, the US' unit labour costs rapidly fell during the period. In spite of such falling costs, however, the US unit labour costs *relative* to other countries' *rose* by approximately 20% because of the high dollar value (Brenner 2009). As a result, between 1997 and 2007 the US share of world exports fell 4.3% point from 12.6% to 8.3% in a steady trend of decline since 1980 (Gatto et al 2011, p.2).

moving production lines to low-wage developing countries, notably *Maquiladora sweatshops*. In other cases, productive capitals turned themselves into a sort of financier dealing with consumer finance in response to rising demand for credits⁴ (Blackburn 2006). As a result of such responses, the share of manufacturing in the economy continuously fell with the pool of unemployed or underemployed low-wage workers in the service sector amplified. For instance, the share of manufacturing in terms of GDP continued to fall from 23.4% in 1990 to 18.4% in 2000 and further to 17% in 2007, while more than 90% of domestic investment was in non-traded goods sectors (BEA). In line with this trend, the share of manufacturing sectors in total employment also fell from about 17% in 1990 to 13% in 2000 and further to 10% in 2007, while the share of the service and construction sectors rose from 83% to 89% over the same period (Mishel et al 2007, p.169).

Second, the environment of the strong dollar and low interest rates coupled with the US' highly developed financial markets induced surplus capital (i.e. capital that could not be reinvested in the increasingly unprofitable production process both in the US and abroad) to be invested in American asset markets (shares and houses etc.). While the resultant higher prices of assets made the cash-stripped wage-earners (who had assets) more willing and capable to expand borrowing and spending despite stagnating income growth,⁵ the growing consumption spending drove a boom across the economy. The change in the components of GDP clearly illustrates the trend of the brisk debt-financed consumption boom coupled with deindustrialization. While the investment to GDP ratio rose only 1% from 18.1% to 19.1%, the final consumption to GDP ratio surged from 83% in 1995 to 86% in 2007 (BEA). This consumption-led growth resulted in the biggest economic imbalances in American history, allowing current account deficits as a share of GDP to surge from 1.2% in 1995 to 5.1% in 2007 (see Table 2.3).

⁴ In addition to banks, hedge funds, and fund managers, many large companies such as GE, Enron, and GM etc. also created subsidiaries dealing with consumer credits, which made a large contribution to their profits. As a result, the share of financial-sector profits in total US corporate profits rose from 14% in 1981 to 39% in 2001. For a more detailed account for this trend of financialisation see Brenner (2004); Krippner (2003).

⁵ The expanding household consumption was not induced by a rising household disposable income as a share of GDP (e.g. from 2001 to 2005, personal income fell from 86% of GDP to 82%) but by the household's increasing propensity to consume (lower savings rate) along with higher indebtedness.

Diagnosing those crisis-ridden dual trends as a result of the Fed's monetary myopia fueling asset market bubbles along with the government's reckless expansionary fiscal policies, Keynesian economists have argued that the government was required to employ rebalancing policies including contractionary monetary-fiscal policies, stricter regulations over financial markets, and a devaluation of the dollar at a substantial rate. They assume that such policies could smoothly dampen the debt-financed consumption boom at the same time as stimulating tradable sectors of the economy and thus resulting in balanced growth free from crisis.

Although Keynesian accounts of the role of these policies in inducing the crisis-ridden imbalanced growth are not incorrect, there is no ground for their assumption that rebalancing policies could lead to balanced growth. Indeed, unlike the economists' optimistic assumption, it was highly likely that such policies would be followed by a destructive crisis because pressure on the debt-financed consumption boom would inevitably entail the same weight of pressure on the ability of debtors to service accumulated debts. More specifically, such policies would precipitate an outflow of funds from asset markets turning 'wealthy debtors' into 'poor debtors', while falling consumption demands coupled with a growing burden of debts would force firms in domestic consumption-reliant sectors to reduce employment and wages or to liquidate themselves. With debtors' ability to pay interest and rollover existing debts increasingly undermined, the rising volume of bad debt would put growing pressure on the banking system, leading to a further tightening of credits in an uncontrollable vicious circle. Considering that the majority of the working population's reproduction has come to be dependent upon employment in consumption-reliant services sectors, the impact would be huge enough to risk the whole US economy and political stability (Rajan 2010, p.39; Ivanova 2011, p.862). In this regard, the US' economic growth based on a debt-financed asset market boom was like a bicycle that must be kept moving forward in order to merely avoid collapse. Indeed, as Greenspan admitted⁶, it was the possibility of such kinds of crisis that had confined the Fed's ability and willingness to raise interest rates to

⁶ Employing excessively expansionary policies, then Fed Chairman Alan Greenspan (2005) confessed, "given the potentially severe consequences of deflation, the expected benefits of the *unusual* policy action were judged to outweigh its expected costs".

sufficiently encounter the asset price inflation between the mid-1990s and mid-2000s.⁷

Furthermore, factors constituting the rebalancing policies such as reduction in final consumption rates, a fall in the value of dollars, and a rise in interest rates in the US are all factors that are highly likely to provoke financial crises in other countries, in particular export-reliant developing economies, and any serious crisis in those countries would trigger a massive transfer of capital to the safe haven, that is, US financial markets.⁸ Let alone the negative impact on the US' export sectors (i.e. the shrinking effective demand for US exports in those crisis-stricken countries), the huge influx of funds to the US following a crisis would possibly nullify the effects of rebalancing policies shortly after without attaining the desired end. After all, the feasibility of US' rebalancing policy is confined not only to a possible domestic debt problem but also by the ripple effects on the rest of the world. As long as the US' attempts at rebalancing are not compatible with the well-being of international capital relations as a whole, the following global flows of money would soon thwart such an attempt.

In this sense, it cannot be said that the US government and the Fed's continuous support for the debt-financed consumption boom was due to the misjudgements of policy-makers. By the same token, it is wrong to assume that a certain combination of policy instruments, if used properly, could avoid imbalanced growth and steer the economy towards a path of crisis-free balanced growth. As the support for the imbalanced growth was a desperate struggle of the state to sustain accumulation and secure the reproduction of social relations, rebalancing policies countering the struggle may well result in a different form of crisis-ridden imbalances rather than a balanced economic structure.

1.3. Conclusion

Although there is good evidence to argue that the global imbalance was formed and

⁷ In fact, the Fed's limited ability was an open secret. It in turn encouraged investors (in expectation that the Fed would not dare increase interest rates further) to continue to invest in asset markets (long-term debt instruments) in spite of the Fed's inching up short-term interest rates, creating a phenomenon then called 'Greenspan conundrum'.

⁸ This was exactly the case in the wake of the 1997 East Asian financial crisis.

sustained by contradictory and crisis-ridden economic policies of each country, it is wrong to see these policies as the root cause of the imbalances. In fact, these policies were responses to the manner in which the contradiction inherent in the capitalist mode of production manifests itself. As discussed in this section, imbalanced growth was promoted by both governments as a way of escaping from an imminent crisis of accumulation experienced in the early 1990s. Rebalancing policies were not actively employed because they would inevitably entail a destructive crisis by putting pressures of devaluation on the capital so far accumulated in the form of productive capacity (in the case of China) or credit-sustained assets (in the case of the US). Emphasising the importance of ‘appropriate’ policies for a stable balanced growth without understanding the underlying causes of the imbalance, thus, cannot but either end in empty talk or contradict itself.

2. The Sino-American imbalance as a form of international cooperation

Analyses of ‘domestic’ contexts of China and the US are not enough for a comprehensive understanding of the Sino-American imbalance. It also requires an international perspective through which the peculiar relations between China and the US can be grasped. As discussed in Chapter 3, approaches of critical IPE and World System analysis are two such international perspectives, explaining the global imbalance at the level of the international ‘system’. Specifically, critical IPE theories explain the global imbalance by focusing on the deficient contemporary international monetary order in which the US, the issuer of de-facto global money, is given a prerogative of a de-facto world state or what they call ‘structural monetary power’ capable of financing any expensive self-centred policies by exploiting the world’s surplus savings deposited in dollar-assets. They point out that, in this order, other states including China are forced to provide the US with cheap credits (i.e. building up dollar-reserves) because of their own stake in a stable dollar as well as financial vulnerability in the increasingly crisis-ridden global financial system. In short, from this perspective, the Sino-American imbalance was an expression of this unequal US-centered international monetary system. On the other hand, World System theories argue that the US’ imperialistic exploitation of its dollar privileges is a reflection of its declining economic power in production, and thus declining American hegemony. They also argue that the declining US power has been accompanied by a rising new centre of global production: China, a pioneer of what they call the ‘non-capitalist market economy’. They

expect, in the long run, China's rise as a new centre of the global economy and the promotion of the Beijing Consensus to replace the Washington Consensus will provide system-level solutions to the system-level problems left behind by American hegemony. Consequently, for them, the global imbalance was one of the by-products or symptoms of this historical process of hegemonic shift.

It is true that they both have their own merits in explaining some important aspects of the imbalance from international political viewpoints. But they both overlook or cannot explain the most defining aspect constituting the nature of the Sino-American relations: mutual dependence. Indeed, despite the apparent conflicts and rivalry, China was as dependent upon the US as the US was dependent upon China in forming the imbalance. For example, the imbalanced economic growth of China following the reform process would have been impossible at the outset without the US' booming consumption markets and the influx of FDI from the US, offsetting the deflationary pressure in China. Likewise, the imbalanced growth of the US led by the consumption boom from the mid-1990s would have been impossible in the first place without the rise of China sending cheap credits as well as cheap commodities, thus countering the inflationary pressure in the US. Both critical IPE and World System theories pay little attention to this point because their analytical frameworks, despite the emphases on the 'system', are still tied to the traditional realist IR approach that tends to interpret global economic affairs as a power relation between independent individual states imposing external constraints on each other. Based on this realist framework, the Sino-American imbalance may well be seen either as a reflection of the US' superior economic power subjecting China (if the source of the state power is considered to lie in the ability of financing its national spending) or as an outcome of China's rising economic power surpassing the US (if state power is considered to be represented by national production capacity). Such a view emphasizing inter-state rivalry conceals the fact that accumulation of capital takes place only as a unity of production and circulation, and thus sustaining accumulation within the US as a global centre of circulation inevitably requires the existence of China as a global centre of production and vice versa. In other words, each state should be seen not as compartmentalized units externally related to each other, but as regional parts of one unified global process of capital accumulation.

Recognizing this fact, the Sino-American imbalance can be understood as a form of international cooperation of the two countries complementing each other in order to sustain accumulation and secure domestic reproduction of social relations. The following section will underpin this argument by analysing the process in which the possibility of a serious crisis of accumulation following the burst of the US stock market bubble in 2000 was managed and then bridged to another period of imbalanced but rapid growth by the two states.

2.1. The process of Sino-American cooperation for sustaining accumulation

The stock market boom was the main engine driving the US economy forward during the second half of the 1990s. Correspondingly, the bursting of the bubble in 2000 immediately weakened the economy during the early 2000s. As the collapse of stock prices abruptly turned wealthy debtors into poor debtors, the debt-financed consumption boom also collapsed, leaving most US-based firms (reliant on domestic consumption demands) excessive and inefficient if not insolvent. The situation was not unlike that of the early 1990s; the period between 2001 and 2002 was the moment when the US economy once again faced the grim reality that its prosperity had long been resting on the basis of imaginary wealth that now had to be paid for with 'real' wealth: surplus value created in profitable exploitation of labour.

Between 2000 and 2002, while the average utility capitalization rates were rapidly falling from 79.3% to 72.4%, unemployment soared from 4.0% to 5.8% during the same short period as the firms reacted to falling productivity with mass-layoffs even if it would worsen the recession (FRED). In response to the downward spiral of recession and the growing possibility of sweeping crisis, the Fed employed drastic expansionary policies while the administration rapidly expanded debt-financed spending. One of the immediate and inevitable problems of such a rescue policy pack was the downward pressure placed on the dollar. Responding to the tumbling stock market and the falling interest rates, private investors in particular European institutions began rapidly withdrawing their funds from US markets. For example, having peaked in the year ending in October 2000 at \$115.6 billion, Eurozone purchases of US equities collapsed to just \$4.9 billion in the year ending

in April 2003 (FRED). As a result, between early 2001 and the middle of 2003, the dollar fell by 37% against the euro, 27% alone in the year ending June 2003 (Chavez 2003). Whilst the decline of the dollar did not bring about immediate growth of US export industries (partly because of the worsening recession overshadowing the global economy as a whole), the pessimistic view of the future dollar value made it even less attractive to hold US stocks and bonds. There was a growing fear of the possibility of massive capital flight and further collapse of asset markets. At that time, some even warned the dollar could fall by as much as the Mexican peso did in 1995 (Tabb 2001). The fall of the dollar was driving the monetary authority to a deadlock; if it allowed the dollar to continue to fall, then there would be a wholesale liquidation of US assets by foreign investors (worth \$7 trillion by the end of 2001); if it raised interest rates to support the dollar, then the recession would be accelerated (Brenner 2004, p.86-87). It was evident that the US economy was falling into a crisis that could not be avoided by the state's own policies.

Meanwhile, the impact of the bursting of the stock market bubble was not limited to the US economy; it affected the world economy in particular major exporters including China.⁹ There were two channels through which the stock market crash in the US impacted upon the Chinese economy. First, the sudden fall in export demand in the world market rendered a large number of the existing factories and workers in the export sectors excessive and thus subject to being eliminated. For instance, capitals in export sectors in China saw capacity utilization rates rapidly fall from 82.1 to 79.8% between 2000 and 2002 (it was the steepest decline China had seen since the early 1990s). As they reacted to the falling productivity and profit rates with acceleration of layoffs, the unemployment rates soared from 3.1% (5.95 million) to 4.0% (7.70 million) during the same period. Measured with ILO standards, the rates were 13.1% in 2002 compared to 11.5% in 2000 (Giles et al 2005, p.53).

Second, there was a sudden surge in inflows of speculative capital from 2001. This trend was proved by the dramatic change in China's non-FDI capital account balance (including

⁹ In the case of China, the largest exporter in the world, during 2001–08, net exports and the investment closely linked to building capacity in tradable sectors accounted for over 60% of its economic growth, up from 40% in the 1990s, and the share of the US in China's total exports accounted for more than 30% during the period (Guo and N'Diaye 2009, p.4).

errors and omissions); the annual average balance that had remained at \$-54.4 billion between 1998 and 2000 went \$23.6 billion into the black between 2001 and 2004 (Prasad 2008, p.85)¹⁰. The so-called hot money inflows from abroad were accelerated because the large quantity of funds released from US financial markets took their course towards the renminbi assets in anticipation of the currency's appreciation either in nominal or real terms (i.e. higher price inflation in China than other countries) (Lardy 2012, p.99). These foreign investor expectations of the speculative gains had a self-fulfilling character in that the more inflows of funds, the more upward pressure either on the nominal renminbi value or on the asset market inflation. For the Chinese government, both of the expected results (real or nominal appreciation of the currency) were options unacceptable as it would directly put further pressure on the profitability of the main growth engine of the economy: export sectors by either increasing costs of production (in the case of real appreciation) or by lowering selling prices in renminbi terms (in the case of nominal appreciation). Also, any appreciation of the renminbi vis-à-vis other currencies would cause a direct loss in terms of the value of previously accumulated foreign exchange reserves (the so-called negative 'valuation effects'), which would significantly deteriorate the capital base and balance sheets of the monetary authority.

The central bank reacted to the problem by means of the famous double intervention policies (Frankel and Wei 2007, p.576; Husted and Melvin 2007, p. 443). On the one side, it directly repressed the nominal value of the renminbi by buying up the dollars in foreign exchange markets (i.e. building up dollar-reserves). On the other side, it 'sterilised' the additional money supply (inflationary pressures) resulted from the intervention in the exchange market by selling central bank bills and raising the required reserve ratio.¹¹ One

¹⁰ Because China's capital account was only partially liberalized, in theory, international capital flows into and out of China are only allowed via the form of FDI, official borrowing, and portfolio investment by a few qualified institutional investors. However, there are lots of loopholes in the controls such as transactions via underground exchange houses, and under or over-invoicing of exports and imports (Yu 2008). As a result, despite controls over capital account, pro-cyclical international capital flows have been a major destabilizing factor in the economy. The magnitude of such a speculative capital flows can be measured either by checking the item "errors and omissions" in the balance of payments or by calculating the so-called unexplained capital flows (the change in foreign exchange reserves minus FDI and trade surplus) (Prasad, 2008).

¹¹ Since 2002, the monetary authority has sterilized around 70% of the additional supply of money that resulted from net foreign exchange reserve growths (Bottelier 2008).

of the critical limitations of this double intervention policy is that the sterilization process tends to raise interest rates in proportion to the magnitude and duration of the intervention (Lardy 2012, p.97). If interest rates are allowed to rise, then it will induce more capital inflows while escalating the cost of sterilization operations (the central bank's debt burden) in an upward spiral.

The Chinese monetary authority managed this problem by means of administrative controls over interest rates; on the one hand, the monetary authority forced the state-owned commercial banks to buy the sterilization bonds and to place an increasing amount of funds in accounts at the central bank at very low rates; on the other hand, the authority, by setting a low ceiling on deposit rates but floor on lending rates (guaranteeing generous spread-profitability of banks), allowed the banks to offset the costs of forced participation in the sterilization operations. Considering the biggest net depositors were low-income households, the policies that would often impose even negative real interest rates on deposits were in effect policies sterilizing working populations' income growth. In other words, the cost of sterilization policies was ultimately paid by low-income workers who had no choice but to raise savings in the absence of secure employment and any meaningful public safety net¹². Indeed, according to one estimation, more than one-fifth of the fall in household disposable income during the first half of the 2000s was due to the low or negative real deposit rates enforced by the central bank (Lardy 2012, pp.58-9). While the burden of the sterilization process was being passed on to the working population, the monetary authority was able to actively intervene in the exchange markets (i.e. purchase of dollars) without worry of inflation.

Meanwhile, the purchased dollars were not held by the central bank in the form of cash. The central bank and the government were eager to reinvest those incoming dollars (both trade surpluses and hot money inflows) back into US government/agency bonds, which in turn played a critical role in stopping the trend of the falling dollar and rising interest rates in the US. Indeed, from 2000 the pace of China's foreign reserve accumulation started to

¹² Lardy (2012, p.135) argues that the dramatically reduced real return on savings motivated households to increase savings further as households, deprived of public a safety net, had to achieve a target level of savings.

skyrocket (between 1997 and 2000 the ratio of foreign reserves in GDP remained constant at around 14%, then it soared to 16.5% in 2001 and 20.3% in 2002, and further to 25.1% in 2003), and near 70-80% of the reserve was used in buying Treasury bills and US agency securities (Morrison and Lbonte, 2009). Because of these massive purchases of US securities offsetting the outflow of European private funds, the value of the dollar fell only 5.9% vis-à-vis the currencies of a broad group of major US trading partners (in terms of real trade weighted rates) while it declined by more than 13% vis-à-vis major advanced countries' currencies between 2001 and the end of 2002 (FRED 2012)¹³. While the limited fall of the dollar and bond prices began inducing the global flow of speculative capitals to return to the US asset markets from around 2003 (see Table 7.9), the US authority was able to react to the recession with exceptionally expansionary fiscal-monetary policies without worries over the dollar's stability. As a result, while the US current account deficit began to expand at a historically unprecedented pace with a rapid resurrection of the consumption boom, China in turn was able to withstand recessionary pressure and keep the export-investment boom unhampered.

It should be noted that such cooperative relations would have been more difficult if it were not for the medium of the financial relations: the highly developed US financial infrastructure, in particular the mortgage financial markets, enabling its people to be more easily indebted and spend more than their incomes by attracting the world's pool of savings. The US mortgage financial market had been developed by the US government in tandem with Wall Street since the mid-1990s. Governments both the Democrats and the Republican were eager to expand homeownership by broadening access to easy housing credit because it was considered a cure-all addressing political-economic problems deriving from low-real wages, high unemployment, growing poverty and economic inequality (Rajan 2010, p.39). Providing debt-financed housing was also considered an effective tool for transforming the poor working class into individuals who are responsible for debt-repayment or afraid of losing their wealth, rather than allowing them to constitute an uncontrollable mass without any responsibility for society or anything to lose.

¹³ During the same period, the dollar was actually appreciated by about 3.5% vis-à-vis currencies of developing countries including Mexico, China, Taiwan, Korea, Singapore, Hong Kong, Malaysia, Brazil, Thailand, Philippines, Indonesia, India, Israel, Saudi Arabia, Russia, Argentina, Venezuela, Chile and Colombia (FRED 2012).

The task was implemented through the operations of Fannie Mae and Freddie Mac, the government-sponsored enterprises (GSEs), which bought up mortgages from banks and then sold mortgage-backed securities (MBSs) on credit markets. With an implicit government guarantee attached, the high risk and high return securities were transformed into a financial product bearing low-risk relative to stocks/corporate bonds and high-returns relative to Treasury bonds. This attractiveness of MBSs significantly extended foreign demand for them,¹⁴ which in turn enabled low-income households in the US to borrow at lower costs against growing housing wealth.

While the mortgage market was further sophisticated and deepened by Wall Street,¹⁵ what actually drove its boom was the massive inflow of Chinese funds from the early 2000s. For the Chinese monetary authority which was under the pressure of having to work the huge quantity of foreign exchange reserves both securely and profitably (at an earning rate higher than domestic interest rates), the US' MBSs were a more than attractive investment vehicle. Indeed, while China's holdings of US securities more than quadrupled from \$181 billion in 2002 to \$922 billion in 2007 becoming the second largest foreign holder of US securities after Japan, approximately 41% (or \$ 376 billion) of the funds were invested in long-term agency securities most of which is estimated to be debt issued by Fannie Mae and Freddie Mac. By 2007 China was the world's largest holder of Fannie Mae and Freddie Mac MBSs, holding more than 30% of the total securities issued by them (Morrison and Labonte 2009, pp.4-6). In this regard, the accumulation of surplus capital in China and credit expansion, financial innovation and speculative boom in the US were two

¹⁴ Since the mid-1990s the growth in foreign purchases of US mortgage-securitized bonds was exceptional; an IMF (2006) study estimates that MBSs held by foreigners were worth near \$1 trillion by March 2006, representing more than 30% of the growth in net foreign savings inflows since the mid-1980s. The trend was led by foreign official institutions which rapidly increased their holdings of asset-backed securities during the first half of the 2000s. Indeed, in 2005, such assets came to account for close to 9% of all the foreign official holdings of US debt securities (IMF 2006, p.8).

¹⁵ Massive amounts of cross-border capital inflows into the US financial market, a large portion of which were from China, significantly reduced long-term rates in the US. This fall in long-term rates, in turn, compressed the spread between long and short rates that has traditionally constituted an important source of banks' earnings. The pressure on profitability of banks, in turn, encouraged banks to develop even riskier and higher-yielding financial products. This request for riskier products of banks was accompanied with the government's policies promoting brisk mortgage borrowings. For more discussion on this see Lardy (2012), p.135.

sides of the same coin (Ivanova 2011, p.868).

2.2. Conclusion

Consequently, what was behind the escape from the early-2000s recession and rapid return to growth until 2007 was not a rivalry between two independent superpowers; it was neither China's rise at the expense of US hegemony nor the US' exploitation of its dollar status vis-à-vis China, but de-facto cooperation between the two mutually dependent states (just like the Plaza accord of 1985 and reverse Plaza accord of 1995) for dealing with a crisis of accumulation overshadowing both of them at the same time. Indeed, the imbalanced growth during the period would have been impossible without mutually complementing policy actions: China's financial support for the dollar and US assets, coupled with the US' provision of expanding export demands and its role as a profitable absorbent of Chinese surplus savings. Focusing on this nature of the imbalance, it can be summarised that the Sino-American global imbalance was a form of international cooperation for sustaining accumulation in the face of an imminent crisis that each state faced, or cooperation for resisting devaluation pressures on existing capitals in both states.

3. The Sino-American Imbalance as a perverted form of capital accumulation

Neoclassical approaches to the Sino-American imbalance capture well the fact that the imbalance was formed by international cooperative financial relations based on mutual interests. Examining demographic features, productivity growth and the financial infrastructure of the two countries, they see the Sino-American imbalance as an outcome of international cooperation between Chinese savers (i.e. the central bank) and American borrowers who are considered 'rational' in terms of inter-temporal utility maximization. In other words, in this perspective the imbalance was an event that should be seen as the windfall gain of free flows of money in the era of globalization and thus any efforts to counter it should be judged to be misguided. These arguments proceed upon the optimistic assumption that, in the long run, as the US' rapid productivity growth bears fruit and China's financial system reaches maturity (as well as changes in the two states' demographic profiles), the bilateral imbalance would gradually disappear or even a new form of imbalance would emerge with the position of China and the US exchanged. For

such a process of automatic rebalancing, they argue that what is needed is not a Keynesian distortion of markets that sacrifices rational Chinese savers and US borrowers, but a further promotion of globalization and integration of financial markets through which international cooperation for efficient resource allocation can be maximized.

The obvious limitation of this kind of argument is that it focuses only on some beneficial aspects of the cooperative relations related to the deepening imbalance; no attempt is made to explain the increasingly manifest fallouts of the imbalanced growth such as overinvestment in China and overextension of credit in the US, let alone the inner relations of such fallouts with the beneficial aspects. This limitation derives from their blind reasoning that rational activities for minimizing costs in a given economic situation may well bring about the concomitant rational outcomes. In other words, they, in a manner comparable to Keynesian perspectives which blindly endorse ‘correct’ policies as a panacea, do not grasp the fact that any individual rational economic decisions inevitably entail irrational outcomes because irrationality is inherent in the capitalist economy itself.

With the help of the Marxist concept of overaccumulation crisis, this thesis elucidates that rather than a process of efficient resource allocation promising an ‘inter-temporal utility maximization’ for all, the cooperative international relations conducive to sustaining imbalanced growth were fundamentally contradictory relations amplifying the necessity of a crisis involving a devaluation or destruction of capital so far accumulated. Specifically, in return for the fruit of rapid growth, it drove productive forces in China to maximize themselves without regard for the limitations of markets, and at the same time it allowed credit in the US to expand regardless of the ability of debtors to service debts, both of which can only be solved by a crisis which would remove the excess. In this regard, the Sino-American imbalance was not an ordinary benign form of cooperation for mutual benefit but a perverted form of international cooperation undermining its own foundations.

3.1. China’s imbalanced growth on the way to a crisis

While Keynesian rebalancing policies (raising costs of production) were not actively employed, the Chinese government, by the help of the expanding consumption boom in the

US, continued trying to keep the conditions of production favourable to exporters in the hope that a sustaining export-investment oriented growth would ultimately bear ‘trickle down effects’. In spite of some fruits of such efforts in the form of rapid expansion of exports and investment, the economy was however facing increasingly inexorable problems such as worsening overcapacity, high unemployment, and rising bad debt loads in the banking system coupled with a speculative real-estate market boom. Those problems were indeed inexorable because it was the rapid expansion of exports and investment itself that caused the problems.

Armed with the world’s lowest unit labour costs (the world’s most efficient system of extracting surplus labour) capitals operating in China were able to rapidly expand their share of world markets. Adding to FDI funds that rushed in, the huge surplus profits (deriving from the difference between world prices of commodities and the Chinese costs of production) earned from exports were eagerly reinvested in production, facilitating ever greater levels of capital accumulation. The rapid accumulation, however, was itself building up barriers to further accumulation by maximizing productive forces and throwing an increasing mass of commodities onto the world market without regard to demand¹⁶. Close to the point where the supply of Chinese goods exceeds what is needed to meet final demand on the world market, a growing amount of unsold goods began to put pressure on the existing price levels (i.e. a fall of world prices towards the Chinese price) and thus existing profit rates. Faced with the barrier of the limited market and falling rate of profits, individual firms did not tamely withdraw from the markets (submitting to considerable loss of value in the form of huge illiquid physical, human, and organizational assets) but tried to overcome the barrier by cutting unit costs of production further. These rational efforts by individual capitals for ever-higher productivity growth served to compound the original

¹⁶ While ultra-cheap Chinese-made commodities in almost all sectors of industry (including intermediary goods) were flooding the world market, firms producing tradable goods in other countries were put under growing pressure of having to restructure themselves by discharging ‘surplus’ workers or forcing workers to accept lower wage. It follows that the working population across the world was placed in competition with Chinese workers in the race to the bottom; they were increasingly pressurized to abandon existing levels of living standards that now turned out to be undeserved and unsustainable. This trend checked the growth of effective demands for Chinese commodities. For examples of how such trends influenced East Asian countries see Hart-Landsberg and Burkett (2006, pp.9-11) and Fernald and Loungani (2004, p.2).

problem of overproduction and falling profitability. The ever-falling average capacity unitization rates (which declined from 82.6% in 1999 to 77.1% in 2003 and then further fell to 75.8% in 2006) were one of the symptoms of these trends (China Statistical Yearbook 2012).

The worsening overcapacity and overproduction brought about three interrelated problems in the Chinese economy. First and maybe the most serious problem was that unemployment remained persistently high for a long time. According to official statistics, urban unemployment in China stayed below 3% throughout the 1990s and the 2000s. However, if the ILO definition of unemployment is applied, urban unemployment rate rose over the 1990s, from 4.2% in 1990 to 5.6% in 1995 to 11.5% in 2000 and further to 15.2% in 2005 (Knight and Xue, 2003, 2005). It should be noted that the unemployment was rising *in spite of* the high rate of investment. Indeed, from the early 2000s while investment was growing by almost 20% per annum, employment grew only by 1% a year (Harman 2009, p.248). This was because of the competitive race to higher productivity growth referred to above; more and more new industrial investments tended to take the form of high-tech new machinery, more advanced technologies and labour management skills, enabling firms to produce a greater quantity of final products with a smaller number of workers (i.e. to reduce labour time necessary to produce each unit of the product).¹⁷ Considering the enforcement of insurance reforms largely remained ineffective (as of 2000, only 63% of total urban workers were covered), such a high unemployment was to bring about problems of poverty¹⁸ as well as growing inequality/social unrest directly undermining the legitimacy of the CCP leadership (China Labour Watch 2004).

Second, the overcapacity and overproduction brought about problems of burgeoning bad debt loads in the banking system as the profitability and cash income flows of firms (the ability to pay interest) were on the steady decline. While the actual scale of the non-

¹⁷ Another reason for the trend of growing investment without large employment growth was the changing of the production structure in China toward more capital-intensive and technologically advanced products and away from labour-intensive consumer goods. For statistical data showing the change see Cui (2007).

¹⁸ Indeed, the World Bank pointed out already in the early 2000s that around 200 million people or one in six of the population was living in poverty on less than \$1 a day (quoted by Harman 2009, p.245).

performing loans (NPLs) in China's banking system is still unclear, it is estimated on the basis of government data that by the year 2006 nearly 10% of the total loans of state-owned banks were non-performing (Matthews, et al 2008, p.5). It appears that given the trend of the NPLs ratio of the SOBs falling from around 50% in the late 1990s the banking system has been getting healthier. But such a trend was entirely due to a series of the government's recapitalization programmes,¹⁹ of which the growing cost reached about \$4 trillion by the mid-2000s (Ma 2006). In reality, the problem of bad debt in the banking system was ever-worsening as the root of the problem was in production where the overcapacity and overproduction persisted, and the falling NPLs ratio meant nothing but the growth of NPLs in different forms, that is, quasi-fiscal deficits. This extra public spending made it increasingly difficult for the government to actively react to the growing problems of unemployment and social instability (Bonin and Huang, 2001, p.201).

Third, a speculative boom or a 'bubble' began to rapidly emerge in real estate-construction sectors. For instance, investment in real estate soared by nearly 20% per year from 2001 to 2005 and reached 11% of GDP in 2005, boosting housing prices up by more than 50-60% in almost every major city between 2001 to 2007 (Barnet and Brooks 2006, p.17). Coupled with less and less profitable investment opportunities in production, the low deposit rates set by the monetary authority in favour of the sterilization policies precipitated the flow of surplus capital into the real estate market.²⁰ Despite the precarious ballooning of the housing bubble that would hit the whole financial system hard if allowed to continue, the monetary authority could not react to it by raising interest rates and tightening monetary policy because such a response would not only make it hard for the central bank to sustain the sterilized intervention of exchange rates, but would also make the bad debt problems of

¹⁹ In 1999, the Chinese government set up state-owned asset management companies (AMCs) to clear the bad debts of the big four state banks. The sources of AMC financing were the Ministry of Finance (MoF), the People's Bank of China (PBC), and AMC bonds. The role of the AMCs was to dispose of the bad debts bought from banks through loan sales, auctions, debt restructuring, foreclosures, litigation, and liquidations etc. The problem was that the poor cash recovery rate (that remained below 20%) and the substantial AMC losses turned AMC bonds themselves into bad debts while the financial burden of the government and the PBC was ever-increasing. For a more detailed discussion of the problem of these measures see Ma (2006).

²⁰ These investments mainly took place outside the regulated banking system, i.e. through so-called 'shadow banking' such as the wealth management products and the trust products traded by banks and trust companies.

the banking system even worse (let alone the negative effects on employment growth).

In sum, China was on a typical trajectory of overaccumulation crisis: the formation of surplus capital relative to the opportunities for productive employment. It was expressed in the form of falling profits in production due to overcapacity and overproduction, which were accompanied with a growing mass of unemployed money and unemployed workers. The future of these trends would not be a gradual return to balanced economy; it was the sustained growth that caused the problem and there seems to be no way out but a destructive crisis shaking off the overaccumulated capital.

3.2. US' imbalanced growth on the way to a crisis

As noted, without the Chinese authorities' financial support, the hyper-expansionary policies pursued by the Fed and the Bush Administration would, almost certainly, have issued in a major fall in the dollar, leading to declining asset prices and rising borrowing costs that could have plunged the US, China and the rest of the world economy back into deep recession. However, such policy cooperation of dollar-debt recycling, in return for a temporary aversion of crisis, paved the way for more extensive and more destructive crises by expanding debts without the concomitant expansion of ability to pay the debts.

Through cooperation with China, what the US imported was not only cheap credit available to support the value of the dollar, but also the growing mass of ultra-cheap Chinese commodities that exposed US-based productive capitals to increasingly fierce competitive pressure. Business Week well described the pressure on the US-based firms: “‘the China price.’ They are the three scariest words in US industry. In general, it means 30% to 50% less than what you can possibly make something for in the US. In the worst cases, it means below your cost of materials. Makers of apparel, footwear, electric appliances, and plastics products, which have been shutting US factories for decades, know well the futility of trying to match the China price” (Business Week 2004, quoted by Burkett and Hart-Landsberg 2006, p.33). To make matters worse, partly because of the sizable FDI flows from ‘advanced’ countries to China²¹ and partly because of the rapid growth of

²¹ In some sectors, such as electronics and machineries, foreign direct investment (FDI) has also

China's R&D expenditures, the impact of the 'China price' was expanding to markets for high-technology items. Indeed, since the mid-1990s the share of capital goods (the US' traditional area of strength such as computers, peripherals, and parts) in China's total exports had increased 25-30%, accounting for more than 40% in 2006 (Cui 2007, chart 3).

For many US-based firms in tradable sectors, the imperative imposed by the 'China price' was clear; they had to urgently cheapen their own commodities in order to preserve at least existing market shares and profit rates (Brenner 2009). The struggle to withstand growing competitive pressures was realized as an acceleration of productivity growth (e.g. the productivity in US manufacturing grew by 4% per annum between 1995-2000, and from 2000 to 2006 accelerated to 5.1% per annum) and the resultant rapid fall in unit labour costs and selling prices (The Economist 2006, p.62). But such a fall in prices was not enough compared to the fall in the price of imports, partly because the value of the dollar remained relatively high in particular vis-à-vis the Chinese renminbi and the currencies of other emerging exporters in East Asia. Indeed, as presented by the steady upward tendency of the US terms of trade (the ratio of export to import prices) in capital goods (it had risen by 27.5% between 1995 and 2005 despite the US export prices falling by about 6%), the US-based producers' price competitiveness on the world market was continuously weakened (Iley and Lewis 2007, pp.23-24). In line with declining competitiveness, the market share of the US also constantly declined. For example, between 1995 and 2008 the US share of capital goods exports fell from 21% to 14%, while China's share soared from 6% to 20% over the same period. As a reflection of the trend, the pace of de-industrialization accelerated compared to the 1990s. While the share of manufacturing sectors in total employment declined from 13.1% 2000 to 10.7% in 2005, the proportion of service and construction sectors continued to grow from 86.5% in 2000 to 88.9% in 2005 (Mishel et al 2007, p.169).

Ironically, while the Chinese cheap imports pushed American workers into low-wage, precarious and domestic-consumption-dependent jobs in service and construction sectors,

played an important role, mirroring a major change in the global production network as more stages of production shift to China. For example, FDI flows into the electronics sector from Taiwan alone increased from \$538 million in 1999 to \$2.4 billion in 2005 (Cui 2007).

the influx of Chinese funds made them wealthier than before by inflating asset prices, in particular, the price of houses. The growing wealth, in turn, made it possible for the working population to borrow more and spend more despite the stagnating income growth. As a result, the overall American economy rapidly grew on the basis of the growth of domestic consumption-reliant industries (finance, retail, construction etc.). The consumption-led economic growth based on debt expansion and the concomitant growth in housing wealth seemed non-problematic in an economic sense (i.e. debtors were all apparently wealthy) and would last indefinitely as long as China and other surplus running countries continue to recycle dollar debts and underpin the price of houses. Indeed, during the boom optimism prevailed as it benefited both Chinese exporters and American consumers, while also making both Chinese creditors and American borrowers all wealthy. But the seemingly endless upward spiral of economic growth was a mere illusion because there was not enough real income growth required for servicing the growing amount of debt. In other words, the wealth being accumulated by means of debt expansion was not real but fictitious wealth that could only be proved to be 'real' when a presupposed rise of wages is realized.

This unhappy truth was becoming obvious as the boom continued with the real wage growth left stagnated for a long period (mainly due to the deindustrialization trends). With little or no income growth among wage earners, the ratio of total outstanding debt to individual disposable income reached a historically unprecedented level, making the burden of debt service payment increasingly erode the share of income for preserving existing levels of living standard²². For instance, by 2006, American households were spending as much as 14.5% of their disposable income solely on servicing debt (Iley and Lewis 2007, p.10). They had become wealthier than ever, but the wealth existed only in the form of houses and not cash in hand. As an ultimate result, already by the end of 2006 the

²² For a while, the increasing debt service burden of homeowners was able to be offset by gains from rising house prices, that is, the practices of 'equity extraction' using second mortgages. In other words, there was little or no correlation between debt burden and house prices thanks to a growing number of new homebuyers induced by easier access to mortgages. The underlying problem was that the pace of house price growth was certain to slow down due to the limited number of prospective homebuyers (US residents who need houses to live) in the context of the unlimited supply of new homes, and thus from some point the growing debt service burden would not be able to be covered by equity extraction.

growth of household debt began falling while house prices stopped soaring. While an increasing number of 'wealthy debtors' were sliding down to become 'poor debtors' who cannot rollover existing debt any longer, delinquency rate and foreclosures began to dramatically increase (Forster and Magdoff 2006, p.51).

In sum, the escape from the recession in the early 2000s and the following rapid economic growth were itself building up barriers to further growth by allowing China to continue to produce ultra-cheap commodities and thus undermining the profitability of US-based productive activities. With the source of income deriving from productive accumulation remaining stagnant, the brisk consumption-led economic growth based on ever-growing debt-financed housing wealth was becoming ever more precarious like an increasingly upside down pyramid. It was certain that the ultimate future of these developments would not be a gradual return to a balanced economy but a large scale economic crisis through which the huge mass of fictitious wealth, that is, the overextended credit would be devalued or destroyed.

3.3. Conclusion

The Sino-American imbalance was a form of international cooperation through which the two states exchanged a means of sustaining accumulation. China provided the US with cheap dollar credits and cheap commodities making it possible for the US to keep employing expansionary policies, while at the same time the US provided China with outlets for commodities and surplus savings making it possible for the Chinese state to keep pursuing the export/investment-led growth. The contradiction was that by doing so they were actually reinforcing the tendency to overaccumulation of capital and thus paving the way for more extensive and more destructive crises. Specifically, in China the environment set by the two states to lessen the pressure of devaluation on the capital accumulated in the form of productive capacity ended up amplifying the very pressure by allowing productive forces to grow without regard to the limited demand for products. Likewise, in the US the condition made by the cooperative relations favourable to reduce the devaluation pressure on the dollar and credit-sustained assets turned out to be a factor making the pressure increasingly heavier by allowing credit to expand without regard for

the limited ability (productive accumulation) to honour those obligations. This is the reason why the Sino-American imbalance should be seen not just as a form of international cooperation for mutual benefit but as a 'perverted form' of international cooperation whose means contradict the goal.

4. Conclusion

While pointing out the limitations of existing approaches, this chapter has explored three questions related to the Sino-American imbalance: why the imbalance was promoted by the states, how it was sustained by the states, and what their contradictory consequences entailed for the world economy. The findings discussed above can be briefly summarized as follows.

First, the imbalanced economic growth was promoted by the states as a strategy of escaping from the imminent crisis of accumulation and reproduction of social relations. A rebalancing was not promoted by the states as it in effect meant a return to the crisis they had escaped from. Second, the imbalanced growth was developed and sustained through mutually complementing relations between China and the US. Thus, the Sino-American imbalance was a form of international cooperation for sustaining accumulation. Third, the cooperative relations, by helping capitals to overcome the immediate barriers to accumulation, drove the overaccumulation of capital on the world market to an extreme limit with the necessity of a destructive crisis amplified. For this reason, it was a perverted form of international cooperation contradicting itself.

Synthesizing the three dimensions of the Sino-American global imbalance, this chapter argues that the Sino-American global imbalance was a perverted form of international cooperation for reproducing capitalist social relations in the face of accumulation crisis; or expressed another way, it is argued that the imbalance was an expression of the tendency to overaccumulation and crisis inherent in the capitalist mode of production, mediated and reinforced by mutually complementary economic policies of the US and China seeking to sustain accumulation within their countries. It is believed that, by developing this argument, this chapter has contributed to the aim of this thesis: providing a comprehensive explanation for the Sino-American imbalance and overcoming the limitations of existing perspectives.

Chapter 9 Conclusion

The purpose of this thesis was to provide a comprehensive interpretation of the Chino-American global imbalance that deepened from the mid-1990s onwards. This thesis has argued that the Chino-American global imbalance was an expression of the tendency to overaccumulation and crisis inherent in the capitalist mode of production, mediated and reinforced by complementary economic policies of the US and China seeking to sustain accumulation.

This account is quite different from arguments laid out by mainstream economists and international political economy theorists. Some economists have explained the event as a problem of each government's macroeconomic policies, while others have seen it as an outcome of the rational choices of economic agents in the given market situation. Focusing attention on the international political context of the event, critical IPE theorists have emphasised the politics of the dollar as the global money to show how the US had been able to exploit other countries savings, while the World Systems analysts have seen it as a symptom of the long-term historic pattern of world capitalist evolution and the hegemonic transition: the decline of the American-led capitalist world system and the rise of a Chinese-led new global accumulation regime. While the existing approaches to the imbalance offer some useful analyses of specific aspects of the event, it is clear that their explanatory power remains confined within the narrowly fragmented analytical frames and angles set by themselves in the first place. They all can be criticized for cutting some specific part of the event in order to fit it into their own theoretical concepts rather than providing a means of conceptualizing the event as a whole.

This thesis has argued that the lack of comprehensiveness of the existing approaches principally derives from its restricted methodology, taking the starting point for analysis to be the phenomenally separate and autonomous 'spheres' or 'forms' of society such as the state and the economy (and the subsequent external/functional relations between them) instead of beginning with a study of society itself from which different constituent parts are derived. In other words, the existing views are treating particular categories of social organization as an established 'fact' and proceed to construct its relation to society

externally, as if each of them exists with its own law of development and the intent of existence independent from the underlying relations between people. This thesis has attempted to overcome such a deficiency by means of a Marxist, in particular an open Marxist methodology, which begins a social study with the question of society itself, that is, the way in which human labour power is organized in the process of social production, and then seeks to understand how its various component parts are derived from this. From this perspective, the various elements of which society appears to be constructed are not seen as independently existing things that haphazardly collide with each other, but are instead seen as integral parts of the process of social production. As such, a study based on this methodology is able to offer a means of conceptualizing any social event in the context of a wider social theory. Out of this consideration, this thesis has argued that an analysis of the global imbalances should be based on an understanding of the struggle of reproducing capitalist social relations, that is, the process of capital accumulation which manifests itself in various patterns of state policies, market transactions, the expansion of finance, and interstate relations.

With the help of Marx's theory of accumulation and crisis, this thesis first analysed the contradictory rise of China as a surplus running 'factory of the world'. The dramatic growth of China from the early 1990s was a reflection of the drastic reform process undertaken by the party-state in response to the crisis of class dominance during the pre-reform era. Central to the restructuring process was depoliticizing the social relations of production by displacing the direct state-plan with the rule of law and money as an organizational principle of social production. By severing the financial relations with the state and production units, the responsibility for productivity growth was transmitted from the state to individual firms and workers who were now put under constant pressures of liquidation and redundancy. The result of the aggressive reforms coupled with the Maoist legacy of strict social discipline and the import of advanced methods of production (with FDI inflows) was the advent of the world's most efficient system of extracting surplus labour. While the global market share for products made in China was rapidly enlarging, the huge profits earned from exports were eagerly reinvested in production, facilitating even greater levels of capital accumulation. The rapid accumulation, however, was setting its own barriers to further accumulation: the pressure derived from an ever-growing

amount of commodities thrown onto the market where effective demand for them was not unlimited. Faced with the limits of the market and falling profitability, individual capitals tried to overcome the barrier by introducing more advanced means of production, further laying off 'excess' workers, and intensifying work for remaining workers rather than tamely withdrawing their production. Now the state was facing another form of contradiction: on the one hand, rising unemployment and growing workers' resistance made it necessary to pursue more accommodating policies to deal with potentially serious political unrest, while on the other hand, rising costs of production were making productive investment in China less and less profitable with emerging bad debt problems ever-deepening. It was in this context that the state began eagerly supporting the credit-sustained market expansion in the US by pouring trillions of dollars into the American debt markets.

Meanwhile, the dramatic expansion of China's global market share pressurized other states to recompose class relations in line with the Chinese developments in order to let progressive capital accumulation go on in their territories. While the pressure eventually erupted as successive balance of payment/financial crises in developing countries from the mid-1990s, the worsening overproduction on the world market also turned the nature of the US investment boom based on the expansionary monetary policy coupled with the productivity growth into precarious growth based on the speculative stock market bubble. With productive investment remaining unprofitable despite the productivity growth, the easy credit made available by the expansionary monetary policy was employed to fuel the boom in stock markets where claims of future profit were speculatively traded regardless of the underlying production of surplus value. While the increasing prices of assets were making everyone look increasingly wealthier, the economy as a whole enjoyed a period of prosperity based on the credit-sustained consumption boom. In fact, such a mechanism of fictitious accumulation had been frequently pursued by the US and other states since the 1980s in the face of the crisis of accumulation, and after the bursting of the stock market bubble in 2000 the state once again decided to sustain the existing level of accumulation, that is, to stave off a sweeping crisis, by means of expanded credit. With the reproduction of the majority of the working population having become dependent upon employment in consumption-reliant service sectors, sustaining or reigniting a credit-sustained

consumption boom might have been considered a lifeline of the US' economy and political stability, which had to take precedence over any other government policy. It should be noted that the inflation of the infamous housing market bubble, however, would have been impossible without the support of China which, also in the face of an imminent crisis of overproduction, eagerly recycled the massive quantity of dollars (inflows of hot money as well as those earned from exports) into the US financial markets almost free of charge, thus making it easier for the US monetary authority to employ expansionary policies. It follows that the bubble was an outcome of *de-facto* international policy cooperation enabling the surplus workers to be more easily indebted, and thus to spend more than their incomes, by mobilizing surplus capital through the highly developed international financial system.

Based on the findings of analyses of the contradictory rise of China as a surplus-running 'factory of the world' together with the contradictory rise of the US as a debt-ridden 'consumption market of the world' from the mid-1990s, this thesis has presented three arguments about the nature of the Sino-American imbalance that are distinct from existing approaches. First, refuting the Keynesian approach which attributes the imbalanced growth both in China and the US to the 'wrong' policies employed by misguided policy makers, this thesis has found that the 'wrong' policies were the states' strategies for managing an imminent crisis of accumulation and securing reproduction of social relations. In this sense, the root cause of the imbalance should be located not in the policies or policy makers but in the crisis-tendency inherent in the capitalist mode of production. Second, by exploring the *de-facto* policy cooperation between the US and China through which the crisis following the burst of the US stock market bubble in 2000 was managed and overcome, it was found that the imbalance was a form of international cooperation between the global centre of production (China) and the global centre of circulation (the US) which were mutually dependent in sustaining accumulation within their own territories. This view overcomes the limitation of the approaches of critical IPE and World System analysis which confine their analyses to the framework of hegemonic relations. Third, in contrast to neoclassical approaches which see the imbalance as a process of efficient resource allocation promising an 'inter-temporal utility maximization' for all participants, this thesis has found that the cooperative relations conducive to sustaining imbalanced yet rapid

growth were self-undermining relations that ended up amplifying overaccumulation of capital and the necessity of a destructive crisis in the world market by driving overproduction of commodities and overextension of credit to the extreme limit. It follows that the Sino-American imbalances were an outcome of states' speculative deferral of an economic crisis on a global scale. For this reason, the thesis argues that the Sino-American imbalance was not merely a case of benign cooperation through financial markets for achieving mutual benefit but a self-contradictory and perverted form of international cooperation. Aggregating these three arguments, consequently, this thesis argues that the Sino-American global imbalance was a perverted form of international cooperation for securing reproduction of capitalist social relations in the face of accumulation crisis; or expressed another way, the Sino-American imbalance was an expression of the tendency to overaccumulation and crisis inherent in the capitalist mode of production, managed and reinforced by mutually complementary economic policies of the US and China.

I have employed diverse macroeconomic data in an attempt to empirically demonstrate the argument of this thesis. First of all, the argument that both the US and China were under growing pressure of an accumulation crisis prior to the mid-1990s has been demonstrated with empirical material showing on the one hand the stagnating productivity growth, low real wage growth, and hyper-inflation rates coupled with growing socio-political tensions in China, and, on the other hand, those showing steadily falling capacity utilization rates, and exceptionally high unemployment rates and poverty rates coupled with steadily falling real wages in the US until the mid-1990s.

In response to those crises, as argued here, the Chinese employed policies mainly aimed at cheapening the labour force while depoliticizing the class relations of production, and the American state employed a set of policies lowering interest rates and inducing a stronger dollar with a view to encouraging investment as well as consumption based on easy credit. In China, the policies transformed the economy into a surplus-running 'factory of the world' from the mid-1990s, which I have empirically demonstrated, with the world's lowest unit labour cost and increasingly larger market shares for capital operating in China coupled with the unprecedented influx of FDI as well as the ever-rising current account surpluses. In the US, on the other hand, the policies boosted the economic boom making the economy a world consumption market based on debt expansion, which I have

demonstrated with the relatively high unit labour cost (rising overall trade weighted real value of the dollar), rapidly shrinking market shares for capital operating in the US, and the changing industrial structure towards non-tradable service sectors along with the cumulative current account deficits.

As I have argued, the immediate limits of the imbalanced growth, the lack of effective domestic consumption demands in China and the inflationary pressure (downward pressure on the dollar) in the US, were managed and overcome through the de-facto cooperation between the two states. This thesis empirically demonstrated this argument by means of the data showing the growing level of US debt (especially that issued by the government and government-backed agencies such as MBSs) purchased by the Chinese state along with the growing share of Chinese goods in US consumer markets, which formed and sustained the Sino-American imbalance, in particular from the early 2000s.

Furthermore, as argued in this thesis, while the de-facto policy cooperation made it possible for both states to continue their rapid economic growth without a serious open economic crisis, it ended up intensifying, rather than countering, the tendency towards overaccumulation crisis in both countries. I have empirically supported this argument with some economic indicators showing, on the side of China, the ever-falling average capacity utilization rates, chronically high unemployment, increasing cases of serious industrial action, and growing bad-debt loads in the banking system during the mid-2000s, and, on the side of the US, the ever-rising debt-to-GDP ratios, in particular the precariously rising household debt and debt-service payment as a share of household disposable income until the year 2007.

It is believed that interpreting the Sino-American global imbalance in this way overcomes the deficiency of the fragmented understanding of the existing approaches in terms of its illumination of the broader political economic context (constraints and compulsions derived from the process of capital accumulation and crisis) in which the specific state policies, the pattern of market transactions, and the unique inter-state relations were developed, ultimately constituting the complex phenomena of the global imbalance. Understanding the Sino-American imbalances in this way may also lay the foundation for a more comprehensive understanding of the 2007 global financial crisis and the distresses

the US and China have experienced since 2007, because it is believed that the crisis and its fallout are a magnification of the imbalance as a perverted form of capital accumulation on the world market.

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