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Finance and the Real Economy: China and the West since the Asian Financial Crisis.[1]

'Finance is the lifeblood of the real economy. Serving the real economy is the duty and mission of finance, and also the fundamental means of preventing financial risks…Preventing systemic financial risks is the eternal theme of the financial sector' (Xi Jinping, 2017: 305-6)

[1] The arguments in this paper are developed at greater length in Nolan, 2020b. This paper was completed in January 2020, before the onset of the cov19 virus.

1. Introduction.

The way in which China and the West's financial system interact with each other will greatly affect the way in which the global financial system is regulated. The symbiotic relationship between the financial and the non-financial ('real') economy is at the heart of political economy. Regulation of the financial system in order to serve the common interest is a crucial task of public policy. How this can be best accomplished is a profound and unresolved issue. A key question is the extent to which financial institutions control or are controlled by public policy. In the depths of the Asian Financial Crisis (AFC) few people could imagine the extent or nature of the transformation that would take place subsequently in the financial systems of China and the West.

China. In the late 1990s China was preparing to join the WTO. It seemed that China's financial firms would soon compete directly with their global counterparts. The AFC revealed the weakness of China's financial firms, including giant state-owned banks, local banks and non-bank financial institutions. Through the medium of Hong Kong the Asian Financial Crisis threatened to de-stabilise the financial system in neighbouring Guangdong province and damage the financial system across the whole of China. The 'three steps' (*san bu zou*) to solve the financial crisis in Guangdong (bankruptcy of GITIC, restructuring GDE and restructuring hundreds of local financial institutions) stemmed the crisis not only for Guangdong, but for the whole country (Nolan, 2020a). 'Cutting the trees to save the forest' (*kanshu jiulin*) provided a breathing space for the whole Chinese financial system to undertake comprehensive reform (Nolan and Wang, 2008). The crisis demonstrated the unstable nature of the international financial system and the damage that its instability could cause to China. The crisis convinced China's policy-makers of the need to keep a barrier between the main body of the country's financial system and the global financial system until reform of the its own financial institutions had progressed much further. The Global Financial Crisis (GFC) provided an even greater shock. Thereafter, China persisted with financial system reform. Although China's financial institutions face numerous challenges, there has been tremendous progress compared with the late 1990s. Throughout the forty years of 'reform and opening up' China has avoided a financial crisis.

The West. After the 1980s under the influence of 'regulatory capture' by giant financial firms and an ideology that was confident of the inherently self-regulating nature of financial markets, regulatory structures that had been in place since World War II were progressively dismantled. This permitted an unprecedented expansion of asset prices and debt in the sort of vicious circle analysed by Minsky (1986) and Kindelberger (1978). The structure crashed to the ground when asset prices collapsed in 2008/9. The main path through which central banks responded to the GFC was to force down interest rates, through lowering the policy rate of interest and buying government bonds. The objective was to 're-ignite asset prices' in order to stimulate demand through the impact on wealth. In the decade since the GFC asset prices, including property, equities and bonds, have rebounded. The ratio of global debt to GDP has increased well beyond that of 2007. If asset prices were to 'snap back' and real interest rates were to return to anything like their normal long-term level, the consequences for Western debtors (households, firms and governments) would be profound. Ten years after the GFC the West's financial system stands on a knife-edge.

2. Counter factual.
In the decade after the AFC, despite fierce ideological pressure from the Washington Consensus viewpoint, China's leaders decided not to open up the country's financial sector in the same fashion as Latin America and Eastern Europe. The decision to reform the five big banks as single entities (*zhengti gaige*) and maintain majority state ownership across most of the financial system was of great significance not only for China but also for the whole global financial system. It meant that China could withstand the tremendous pressure from the GFC and initiate a massive rescue package. The package made a major contribution to the survival of the global financial system during the depth of the GFC. China accounted for more than one-half of global GDP growth in 2009-2011 and over the whole period 2008-2018 it accounted for around 30%. *What would have happened to China and the global financial system if China had followed the path that was urged upon it by the international financial community in the years leading up to the GFC?*

Since the GFC China has accomplished an 'infrastructure revolution', including telecoms, electricity, water, sewage, roads, high-speed rail, ports and air transport, as well as health and education (Table 1). China enjoyed 'late-comer advantage' to the full by incorporating revolutionary changes in information technology 'inside' its fast-expanding infrastructure. The revolution was financed mainly through state-owned banks. Infrastructure construction and its material components (cement, steel, aluminium, chemicals and machinery) were supplied mainly by state-owned enterprises under the State-owned Assets Supervision and Administration Commission (SASAC). The 'infrastructure revolution' contributed directly to mass welfare. It was crucial also to business prosperity in the vast indigenous non-state sector as well as for global firms operating in China.[2] China's physical and human infrastructure is far ahead of comparable developing countries such as India (Table 2), but in some respects (eg high-speed trains, reliability of electricity supply, nuclear power generation, application of information technology and scientific research capability) it is equal to or, even, ahead of many 'developed countries'. In the West the expansion of debt was not directed towards urgently-needed modernisation of infrastructure, but mainly towards an 'investment' in financial assets. In China the expansion of debt helped to finance an 'infrastructure revolution'. A decade after the GFC governments in the West belatedly turned their attention towards policies to repair and upgrade the decaying infrastructure, but little concrete has happened so far. *Would China have been able to achieve the infrastructure revolution, with its wide-ranging social and economic consequences, if SASAC had been disbanded, its giant financial and non-financial sector SOEs had been broken up and privatised, while China had opened the door freely to international financial firms?*[3]

3. Opening China's capital markets.
After 40 years of reform and opening up, China remains substantially isolated from global capital markets. In 2018 foreign banks accounted for 1.3% of total banking assets. In the insurance sector foreign firms accounted for 6.7% of total assets and 5.9% of total premiums. In the Chinese bond market (the third largest in the world) foreign institutions accounted for 2.4% of debt holdings in the interbank market. In 2018 China announced measures to open up the country's capital markets: the removal of the cap on foreign ownership of banks and asset management companies; lifting the foreign ownership cap to 51% for securities companies, fund managers, futures companies, and life insurers, with the commitment to remove the cap entirely within three years; encourage foreign ownership in trust, financial

[2] In China between 2008 and 2017 the share of the non-state sector in total urban employment increased from 47% to 66%, while the share of the tertiary sector in total employment increased from 33% to 45% (SSB, 2018).
[3] A large body of international opinion hoped and believed that this would happen.

leasing, auto finance, currency brokerage, and consumer finance; apply no cap to foreign ownership of asset management companies and wealth management companies newly established by commercial banks; and substantially expand the business scope of foreign banks. International financial firms declared that these measures would bring mutual benefit to themselves as well as to the Chinese economy and Chinese people. Hank Paulson has been at the forefront of international pressure to open up China's capital markets and other strategic sectors: 'When the US advances a constructive, affirmative economic agenda and negotiates hard for greater market liberalisation and openness, we help reformers, led by President Xi Jinping, achieve their economic goals – to China's benefit and our own. Today China's leaders seek to use outside pressure to force domestic change…A successful BIT [Bilateral Investment Treaty] would require the Chinese to open up many more sectors of their economy to our companies…We would benefit from our strengths in financial services, telecommunications, accounting, health care and consulting as those sectors opened to competition in China's vast and rapidly growing market' (Paulson, 2015: 395-6).[4]

4. Two different systems.

Since the late 1990s China's financial firms have radically improved their corporate governance, information technology, risk control and human capabilities. China has five of the world's top ten banks ranked by market capitalisation. Key performance indicators at China's biggest banks are equal to their international peers (Table 3). The total profits of the Big Four Chinese banks (ICBC, CCB, BOC, ABC) are significantly greater than their global peers (JPMorgan, Bank of America, Wells Fargo, Citigroup). China's financial firms appear have caught up with and, even, overtaken their Western rivals. Moreover, they occupy an entrenched position within China. It seems that they can be confident of withstanding competition from the leading international firms on the 'global level playing field'.

However, despite the GFC, Western financial firms, led by those from the USA, dominate the commanding heights of global financial markets, with capital markets at their core. Today the top ten banks account for over 50% of total investment banking revenue and the top 20 banks account for around two-thirds of the total. All of the top five investment banks are American (JPMorgan, Bank of America, Goldman Sachs, Morgan Stanley and Citi) and all of the top 20 investment banks are from high income countries. The world's top 50 asset managers account for 65% per cent of the total assets under management (AUM) by the top 500 firms, and they are all from the high-income countries. Among the top 10 asset managers, eight are American. The top ten firms in foreign exchange trading, which account for 67% of the total amount traded, are all from the high-income economies. The top ten global wealth managers are all from the high-income countries. The top four asset custodians are all American and account for 66% of total global assets under custody. The top ten banks in trade finance and global infrastructure finance are all from the high-income countries. Western firms dominate the activities that are ancillary but essential to capital markets, such as legal services, audit, consultancy, data provision, and ratings agencies. The core information technologies that have contributed to the rapid modernisation of China's financial sector are mainly purchased from leading Western (mainly American) suppliers.[5]

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[4] This quote is from a sub-section of his recent book, entitled 'Helping those who help ourselves'. The title of the book is *Dealing with China*, which implies that China is a 'problem' that has to be 'dealt with', rather than a country that has a rich history which enables it to make a profound contribution to a sustainable future for the whole of humanity.

[5] For example, a large fraction of financial services transactions (as well as e-commerce) in China take place through smart phones. Google-Android accounts for around 85% of the core operating systems of the world's smartphones, including those made in China, and Apple's IOS system accounts for around 14%.

In many respects the operational mechanism of China's financial firms is different from that of the global firms. SOEs are the principal customers for the five big banks. Non-interest income is still a relatively small share of revenue and their international operations are relatively small. The proportion of non-Chinese employees is small. Their senior executives are paid low salaries compared to their international counterparts. The central role of the CPC is enshrined in the banks' articles of association, which means that China has a unique system of corporate governance. This makes it difficult for China's large financial firms to build their business in the West's financial markets. These differences and the fact that China's financial firms operate in an environment that has been protected from international competition, mean that the struggle between Chinese and foreign firms on the 'level playing field' of global capital markets will be long and complex, with an uncertain outcome.[6]

5. Fragile international financial system.
In the late 1990s China was preparing to open up its financial markets to global competition. The AFC demonstrated the dangers of close integration with a poorly regulated international financial system and the alarming speed with which a financial 'fire' could spread and leap across national boundaries (Nolan, 2020a). Simultaneously, the weakness of China's domestic financial firms was exposed. In the following decade China conducted extensive restructuring and international flotation of the leading banks, and established an effective system of financial sector regulation under the CBRC. China once again considered the possibility of opening the financial sector to international competition.

Hank Paulson was CEO of Goldman Sachs from 1999-2006. In 2007, shortly after he was appointed US Treasury Secretary, he 'decided to try to influence the [Chinese] leadership by launching a campaign on capital markets reform'. In a speech at the Shanghai Futures Exchange on 8 March 2007 he told the audience: 'If China wants to live up to its promise, it should quicken the pace of financial services reform. Efficient capital markets, based on transparency, clear property rights, strong institutions, and robust supervision, drive economic growth. They funnel money to the best ideas and allow people to invest in their country's future' (Paulson, 2015: 206). One year later the GFC began. It shocked China's leaders and deeply affected the Chinese economy. During the Strategic and Economic Dialogue in June 2008 Vice-Premier Wang Qishan told Hank Paulson: 'You were my teacher, but now I am in my teacher's domain, and look at your system Hank. We aren't sure we should be learning from you any more' (Paulson, 2015: 240). Paulson notes: 'The crisis was a humbling experience, and this was one of the most humbling moments'. Opening the country's capital markets was once again postponed and reform of domestic financial firms made steady progress in a protected home market.

Since the GFC under the Basle III regulations there have been significant improvements in the regulation of the financial firms, including tighter capital requirements, counter-cyclical buffers, more stringent minimum leverage ratios, restrictions on the use of complex mathematical models to evaluate capital requirements and, in some countries, ring-fencing retail banking. Despite these reforms the structures that drove asset price inflation in the West after the 1970s have not altered fundamentally.

The toxic inter-play between asset price increase and debt expansion was the core mechanism responsible for the global financial crisis. This mechanism has not altered since the GFC. By

[6] In 1938 Mao Zedong delivered a series of speeches 'On protracted warfare' (Mao Zedong, 1938). These speeches have been studied closely in China's financial sector in the decade since the GFC.

far the most significant 'secular trend' in the global economy since the 1980s has been the relentless swelling of asset prices and debt alongside the relentless fall in real interest rates. In the 1960s and 1970s the total global stock of debt was roughly 130% of global GDP. In the early 1980s it began its relentless increase.[7] By 1997 it had reached 235%, rising to 280% in 2008 and by 2018 it stood at 318% (IIF, 2017 and 2019). The changes in debt and asset prices greatly exceed the marginal change in the global savings rate in the same period.[8] A more likely line of causation runs from the increased value of 'assets' held by 'investors' in global capital markets and their symbiotic interaction with the real rate of interest. The 'search for yield' by global 'investors' forced asset prices up and pushed yields down on almost all asset classes in a Minsky-type, self-reinforcing vicious circle. The concerted effort by central banks in the West to reduce real interest rates after 2008 brought to a crescendo a long-run secular trend that was at the heart of financial globalisation, facilitated by the de-regulation of financial markets after the 1970s.

In 2019 China once again stands on the threshold of opening up the country's capital markets. China's commitment to open its capital markets takes place at a point of great fragility in the international financial system. The policies adopted in the West in response to the GFC have re-ignited asset prices, and the unprecedentedly low rates of interest have stimulated an even deeper extent of debt in relation to the real economy than before the GFC. The West's financial system stands on the edge of a precipice.[9]

Civilisation stands at a crossroads (Nolan, 2019a). For 2000 years before the British Industrial Revolution China was at the centre of the world economy, innovation and culture, and it is steadily returning to this role.[10] The West's democratic system only came into existence at the end of the nineteenth century. The system worked well for the West as long as it dominated the world. The West's social structure is being undermined by the forces of globalisation and its political systems are being de-stabilised by populism. The relative decline of the West has accelerated since the GFC contributing to a psycho-social crisis. It is questionable whether the democratic system is equipped to deal effectively and peacefully with the relative decline of the West. Hostility to China has gained force across the West, with widespread discussion of the possibility of a new 'Peloponnesian War'. If another financial crisis erupted in the West, it would have great consequences for economic, social and political stability. It would place the West's political-economic system under severe strain, with unpredictable and potentially dangerous results. The 'rising tide' of asset price inflation conceals deep socio-economic fissures hidden beneath the surface of the water. If

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[7] The combined stock of government debt, private debt securities and equity securities increased from 67% of global GDP in 1980 to 229% in 2003 (McKinsey, 2005). This represented a revolutionary transformation of the role of capital markets in the high-income economies. In 2018 the total stock of global financial assets reached US$382 trillion, roughly 4.5 times the size of global GDP (FSB, 2019).

[8]Over the very long-term since the early nineteenth century, with the exception of wartime, the real interest rate in the high-income economies averaged around 4-5% (Schmelzing, 2017: 13). An earlier episode of a secular decline in real interest rates between the 1870 and 1914 was associated with the first era of globalisation and the growth of modern capital markets, with London at the centre (Nolan, 2019b). The modern era of globalisation witnessed an unprecedented development of capital markets far beyond that of the late nineteenth century. The global savings rate increased marginally from 24.0% in 1997 to 25.5% in 2007, and reached 26.5% in 2019. The global real interest plummeted from 4.2% in 1997 to 2.0% in 2007, reaching -0.8% in 2019. In sum, the direct link suggested by many economists between global savings rates and the real rate of interest since the 1980s is implausible.

[9] In 1930 Mao Zedong wrote his essay 'A single spark can start a prairie fire'(Mao Zedong, 1930). In the years since the GFC this essay has been closely studied within the CPC, especially in the financial sector.

[10] China's share of world manufacturing output (value-added) increased from 2.3% in 1990 to 30.4% in 2018 (WB, 2004 and 2019).

the tide of asset price inflation were to reverse direction it is likely that the 'rocks' would appear (*shui luo shi chu*). This has the potential to flow into international relations in a dangerous fashion, most obviously in relation to the West's engagement with China.

6. Regulating money: Different philosophical foundations.

The different approach taken by China and the West towards finance and the real economy can only be understood by considering their different philosophical foundations. Since the Ancient world of Classical Greece and the Zhou Dynasty, attitudes towards 'money to make money' have diverged fundamentally in the West and China.

The West. In the West there has always been opposition between those who regard the pursuit of 'money to make money' as immoral and sinful, deserving a place in hell, and those who regard the individual's unfettered pursuit of money as the foundation of a successful economy and a free society. The *Book of Revelation* provides an apocalyptic vision of the destruction that will be wrought upon a society dominated by money-making. It still inspires those such as Justin Welby, Archbishop of Canterbury who wish to 'de-throne mammon'(Welby, 2016) . In fact, the only era in which 'mammon' was 'de-throned' in the West was the command economies of the Soviet Union and Eastern Europe.

In Ancient Greece and Rome the land- and slave-owning ruling class was involved in financial activities without significant restraint. Medieval strictures against usury, insofar as they were effective, applied mainly to inter-personal loans, rather than to trade credit. In the late Middle Ages and early modern period, merchants and financiers held the fate of cities and nations in their hands through the loans they provided to warring entities - 'money is the sinews of war'. From the seventeenth century onwards, as the commercial economy expanded, finance and government became increasingly inter-twined. 'Regulatory capture' of government by the financial sector in the West began its long journey. In eighteenth century Britain there was an intimate relationship between finance and government. In the late nineteenth and early twentieth century, during the Golden Age of the City of London, national policy reflected the close links between the City and the government (Nolan, 2019b). In the USA in the late nineteenth century a small group of banks, the 'Money Trust', emerged with JPMorgan at the core. They were hugely influential in government policy-making. By 1918 JPMorgan had become 'almost a department of government' (Chernow, 1990: 204). In the 1920s bankers attained the peak of their influence. The era unleashed rampant financial speculation, which culminated in the Great Crash.

The Great Depression changed the philosophy underpinning the relationship between finance and the real economy. After 1945 increased regulation and supervision meant that banking became similar to a regulated utility, with moderate profits, little risk and low competition (Johnson, 2010: 35). The period from 1950-70 was one of the most stable in western financial history. The regulatory structure enabled the West's financial system to support the real economy and contributed to the 'Golden Age' of western capitalism between 1950-70. There was a low incidence of financial crises, low levels of unemployment, exceptional social stability and long-run sustained growth. Across the developed countries the average annual growth rate of GDP in the period 1950-73 was 4.9%. This compares with 2.5% in 1870-1913 and 1.9% in 1913-50 (Glyn, et al, 1988). The growth rate in the high-income countries fell from 3.3% in 1980-90, to 2.8% in 1990-2000, to 1.7% in 2000-18 (WB, 2004 and 2019).

Throughout this era there was a sustained ideological attack on the philosophy of regulating money tightly. Hayek's *The Road to Serfdom* (1944) played a critical role in the battle against state regulation. The paradox of this unashamedly 'political' book is that it had a tremendous economic impact through its effect upon the economic ideology of the era of globalisation that began in the 1970s. Alan Greenspan, who was chairman of the US Federal Reserve from 1987-2006, was at the heart of the West's financial system as it cast off the regulatory fetters from the post-1945 era. Like most economists in this era he 'found Adam Smith's philosophy of unfettered market competition compelling' and believed that free markets have a 'tendency to self-correct' (Greenspan, 2007: 52). During Greenspan's tenure there was a revolutionary change in the role of financial firms and capital markets. Economists gained swelling confidence that they understood the laws of the financial system. Their ideas were readily absorbed by policy-makers and regulators. In his 'Great Moderation' speech in 2004 Ben Bernanke summarised the widespread confidence among academic economists that they had learned how to control the economic system through monetary policy: 'Improved monetary policy has likely made an important contribution not only to the reduced volatility of inflation…but to the reduced volatility of output as well, which has made me optimistic about the future' (Bernanke, 2004).

During the era of modern globalisation growing industrial concentration in the real economy stimulated a parallel process in the financial sector. Increased industrial concentration in the core of the global financial system strengthened the 'voice' of the financial sector within national policy-making and financial sector regulation. The 'revolving door' between government and finance, as well as numerous other channels of influence, notably academic economists, opened opportunities for 'regulatory capture' of policy-makers and regulators by powerful financial firms (Johnson and Kwaak, 2010).

From the 1970s onwards policies were enacted by Western governments, led by the USA, which progressively freed financial institutions from existing constraints and offered rich profit-making opportunities for firms operating in capital markets. These included privatisation of state-owned enterprises; the end of convertibility for the US dollar into gold; the end of exchange controls and restrictions on international capital movements; abandoning fixed currencies in favour freely floating exchange rates; relaxing controls on cross-border mergers and acquisitions; ending the separation of retail and investment banking; relaxing limits on financial firms' market share within national boundaries; reduction of constraints on mortgages; securitisation and sale of debt to third parties; and a greatly increased role for private financial firms in providing financial products such as pensions. Simultaeneously, influenced by the Washington Consensus ideology, large parts of the developing and transition economies opened up their financial markets to international firms. There developed increasingly complex financial products produced by mathematicians and physicists alongside a simultaneous revolution in information techology.

Asset price growth in the West, both before and after the GFC, was facilitated by monetary policy's focus upon consumer price inflation. In 1998 the UK and EU each established 'independent' central banks with a mandate to control consumer price inflation within a limit set by their governments. In other words, the degree of central bank independence was tightly constrained. Asset prices were excluded from the index of consumer prices. Asset price inflation, including house prices, was considered to be 'outside the domain of the central banks'. The most important asset price is housing. The US Federal Reserve assumed its modern form in 1935. It was to be 'independent of political influence from Congress' with a 'dual mandate' to stabilise prices and maximise employment. Up until 1983 the US government's consumer price index included house prices. By the late 1990s all links to the real estate market had been severed. Nominally 'independent' central banks regularly made small adjustments to the policy rate of interest in response to changes in consumer prices while the 'fire' of asset price inflation raged around them in de-regulated financial markets. Investment in the real economy, including infrastructure, languished alongside the boom in capital markets and financial 'investment'.

These changes set the scene for a revolutionary increase in the size of the financial sector relative to the rest of the economy. The ceaseless increase in debt and asset prices relative to the 'real' economy produced a revolutionary advance in the role of 'capital markets'. Instead of 'assets' being acquired for their dividends or interest payments, they were increasingly acquired for the possibility of asset price inflation.[11] A significant part of the population is a willing accomplice, happy in the 'wealth illusion' and the increased borrowing capacity that it produces, happy also to vote for governments that refuse to 'take away the punchbowl' of asset price increase. The wealthiest segment of the population was especially pleased at the rise of 'capital markets' and the accompanying increase in their wealth. By 2018 global wealth stood at 419% of global GDP and the Gini coefficient of global wealth distribution was an astounding 92.7% (Credit Suisse, 2018).

Financial commentators refer to 'markets' and 'investors' as if they were abstract, neutral entities. In fact, they are concrete institutions. A vast terrain of capital markets business has grown into being in the world's financial centres, with New York and London at the centre. The firms that profit from capital markets include not only retail banks and investment banks, but also a panoply of nonbank financial institutions, including asset managers, mutual funds, money market funds, pensions funds, insurance companies, asset custodians, hedge funds, private equity, and sovereign wealth funds. Surrounding these firms is a thick layer of firms that work with capital markets, including financial hardware and software providers, law firms, audit firms, trading platforms, analysts, data providers, consultants and head-hunters. The share of these institutions in terms of employment and income within the high-income economies has marched forward in lock-step with the increase in relative importance of capital markets. The USA and UK have been at the forefront of this process. The web of financial interests, far beyond the formal financial services sector, pressures governments and regulators to sustain the process of asset price inflation from which they benefit.

China. China's approach to 'making money from money' has almost always been pragmatic rather than ideological. 'Making money from money' has not been regarded as sinful and those who do so have never been threatened with a place in hell. The bureaucracy has viewed pursuit of profit and money-making as a positive force that should be nurtured and respected. Apart from the era between 1956-76 there have never been direct attacks on commercial activities and money-making. Ever since the Zhou Dynasty (11th century-221BC) the bureaucracy has viewed commerce and finance as requiring regulation in the common interest. The idea that commerce and finance should control government policy and practice is anathema in the Chinese political tradition. The only point at which this was the case was during the short-lived Republican Era of KMT rule (1927-36), when finance and government were deeply intertwined and served the interests of a small group of powerful families (Jiang-

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[11] In 2019 the process of asset price inflation entered a new 'Alice in Wonderland' phase. In response to the decision by the US Federal Reserve and the ECB to lower the official interest and re-start the large-scale purchase of Treasury bonds, bond markets in the West entered unknown territory. 'Investors' plunged into bond markets as prices rose to new heights and yields plunged correspondingly to new lows. By September 2019 there were US$ 17 trillion of negative-yielding bonds, amounting to 30% of the world total.

Song-Kong- Chen). Since the Ancient world Chinese political theory and practice has consistently held that the meritocratic bureaucracy should be independent of control by commerce and finance. The bureaucracy has always controlled the country's ideological foundation and value system. The most highly respected social position is that of the educated scholar official, the 'Gentleman'(*junzi*), who earns his place in the ruling bureaucracy on merit. The highest moral duty of the Gentleman is to serve the interests of the mass of the population, rather than serve the interests of finance and make pursuit of money the goal of life.

During 40 years of Reform and Opening-up China has sought to find a Middle Way in reforming the financial system. It has followed the bureaucracy's long tradition of encouraging commerce and money-making while simultaneously experimenting with methods of regulating the financial sector to serve the welfare of the whole society. The CPC has been at the core of the long, experimental reform process, including regulation of the financial sector to serve the common interest. Restructuring, modernisation and flotation of the country's main financial firms has been pursued alongside a continued role for state ownership and control over the financial system through the CPC. Regulation includes the role of the CPC's Central Organisation Department in selecting and evaluation the performance of senior executives and the role of the Party Committee formalised in the articles of association of financial firms. The main regulatory body, the CBIRC, is under the control of the CPC, as is the PBOC, which oversees the whole financial system. Under Reform and Opening-up the space to 'make money from money' has greatly increased. Many of the richest people in the world are Chinese. However, the ideology and regulatory structure is under the control of the bureaucracy, which has become steadily more professionally capable and able to manage the financial system effectively.

Management of the ideology and practical realm of money-making in China is based on a fundamentally different philosophical foundation from that in the West. The management and regulation of the financial system and the financial firms is not driven by 'regulatory capture'. As China's capital markets open up further, the giant global firms that dominate global capital markets can make a valuable contribution to modernising the country's financial system. However, they will operate in a different environment from that in the West. As they expand in China they must accept that regulation of the country's financial system is under the leadership of the CPC in order to serve the interests of the mass of the Chinese population. They cannot expect to exercise 'regulatory capture' over the governance of the Chinese financial system. China already has a 'voice' in the international institutions that influence the way in money is governed across the world, including the IMF, World Bank and the Basel Committee. However, these institutions are still controlled by a small group of high income countries: the head of the IMF is a European, while the heads of the World Bank and the FSB are both American. The voice of China and other developing countries in the institutions of global financial governance is almost certain to increase. The eventual shape of global governance of 'money' is unclear, but is likely to look very different from today.

Tables.

Table 1. Infrastructure development in China, 2008-2017.

	2008	2017	Index (2008=100)
Total energy consumption (m.tonnes of coal equivalent)	3,206	4,490	140
Index of energy efficiency (tonnes of coal equivalent/10,000 RMB) (at comparable prices)	100	72	-
Installed capacity, electricity power generation (m.kw)*	793 (100)	1,777 (100)	224
-thermal	603 (76)	1,106 (62)	183
-nuclear	9 (1)	36 (2)	400
-hydro	173 (22)	341 (19)	197
-wind	negl.	164 (9)	-
-solar	negl.	130 (7)	-
Total floor-space of buildings constructed (m.sq.m.)	2,236	4,191	187
-floor-space of urban real estate buildings completed (m.sq.m)	1,470	2,657	181
-floor-space of urban residential real estate buildings completed (m.sq.m.)	665	1,015	153
Graduates from higher education (m.)	5.12	7.36	144
Medical technical personnel (no/1000 people)**	3.90	6.47	166
Beds in healthcare institutions (m)	4.04	7.94	197
People using safely-managed sanitation (% population)	30 (2000)	60 (2015)	-
Port container traffic (TEU, million)	115	214	186
High-speed railways			
-length in operation (km)	672	25,164	3,775
-share of railway passenger traffic (%)	0.5	56.8	-
Mass Transit Railways (km)	n.a.	3,100 (2015)	-
Length of highways (m km)	37.3	47.7	128
Length of expressways ('000 km)	603	1,364	226
Passenger vehicle ownership (m.)	38	185	486
Air passengers carried (m.)	191	551	288
Length of optical fibre lines (m.km)	6.8	37.8	556
Base stations for mobile phones (m.)	0.60	6.19	1150
Mobile internet subscribers (m)	negl.	1,271	-
Broadband internet subscribers (m)	83	349	-

Source: SSB, 2018; WB, 2018.

Note *Installed capacity indicates the generation capacity at a point in time, not hourly, daily or annual electricity output. China's output of electricity was 2,500 b.kwh in 2005 increasing to 6,142 b.kwh in 2016 (SSB, 2018). ** Includes doctors, registered nurses and pharmacists.

Table 2. Economic development and social welfare in China and India, 2017.

	China	India
Population (m.)	1,386	1,339
Gross National Income, pc. (PPP dollars)	16,750	7,060
Manufacturing value-added (US$ b. (2015)	3,250	323
Merchandise Exports (US$ b.)	2,263	299
High-tech exports (US$ b.)	504	14
High-tech exports (% manufacturing exports)	24	7
Energy use p.c. (kgs oil equivalent)	2,237	637
Electricity consumption p.c. (kwh, 2014)	3,927	806
Electricity transmission and distribution losses (%)	5.5	19.4
Port container traffic (m.TEU)	214	13
Air passengers carried (m.)	551	140
Mobile cellular subscription (no/100 people)	105	87
Internet use (% population)	54	30
Gross enrolment in tertiary education (% relevant age group)	51	27
Health expenditure p.c. (US$ PPP) (2015)	762	238
Health expenditure (% out-of-pocket) (2015)	32	65
Infant mortality (no/1000 live births)	8	32
Life expectancy at birth (years)	76	69
Poverty (% population):-		
< US$ 1.90 p.d.	0.5	21.2
< US$ 3.20 p.d.	7.0	60.4
< US$ 5.50 p.d.	27.2	86.8

Source: World Bank, 2018

Table 3. Performance of largest Chinese and US banks, 2017.

					Performance:-	
	Assets ($b.)	Soundness: capital-assets ratio (%)	Pre-tax profits ($b.)	Profits on capital (%)	Return on assets (%)	NPL to total loans (%)
ICBC	4,007	8.09	56.0	17.28	1.40	1.56
CCB	3,398	8.01	46.1	16.92	1.36	1.49
BOC	2,990	7.51	34.2	15.26	1.15	1.45
ABC	3,234	6.74	36.8	16.87	1.14	1.81
JPMorgan Chase	2,534	8.24	35.9	17.21	1.42	1.44
Bank of America	2,251	8.39	29.2	15.26	1.28	1.23
Wells Fargo	1,952	9.13	27.4	15.36	1.40	2.22
Citigroup	1,842	8.95	22.7	17.43	1.23	1.12

Source: The Banker, July 2018

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