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Enterprises, Industry and Innovation in the People's Republic of China

Questioning Socialism from Deng to the Trade and Tech War

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Preface: The Economic Structure of the PRC: Basic Facts

GDP Growth and Structural Change

> For the past 35 years, China has been the best performing economy in the World. China's GDP has grown faster for longer than that of any other economy in history (Naughton 2018, p. 1).

During the pre-reform period (1949–1977), PRC accomplished against all odds many remarkable feats, among them, satisfying the population's basic nutritional and social needs,[1] expanding literacy, establishing the foundations of the new national socialist economy, and engineering a rapid and vast industrialization process.

Yet, due largely to the recurring shocks stemming from political instability in an over-centralized governing context, China's long-term growth performance was not brilliant. Actually, PRC's average GDP growth rate until the late 1970s was similar to the underwhelming *Hindu rate of growth*.[2] As a result, China failed to attain any meaningful degree of catching up with respect to the USA and its size remained a fraction of that of the American one.

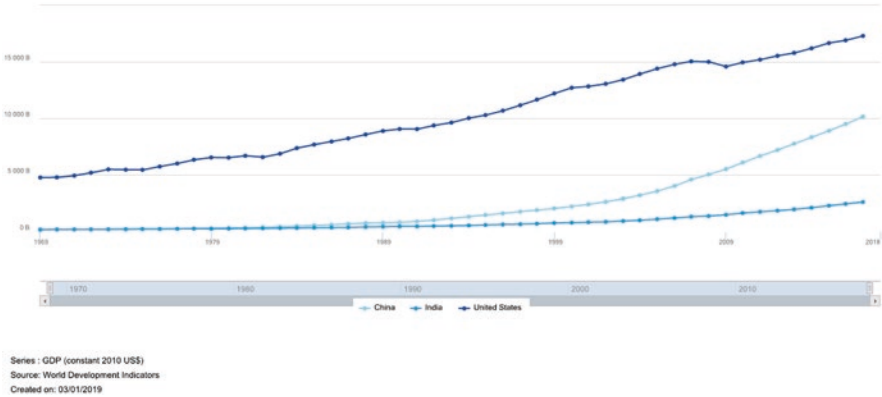
Conversely, since the late 1970s PRC growth picked up strongly and led the country to a still uninterrupted and historically unprecedented[3] period of very fast expansion. By 2018, China's GDP had dwarfed India's one and was over 60% of that of the USA[4] (see Graph 1). This catching-up process is also apparent in per capita terms, although of course China's pc GDP is still much lower than that of the USA (see Graph 2).

[1] This key human development goal was achieved, yet in a precarious and unstable fashion, as was dramatically made evident by the famine caused by the major Great Leap Forward policy blunder in the late 1950s.

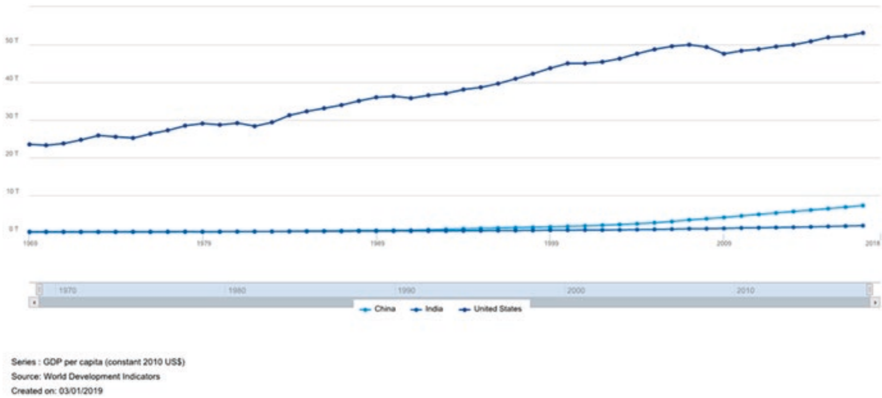
[2] The term was coined by Indian economist Raj Krishna of the Delhi School of Economics.

[3] At least, for a continent-sized country like China.

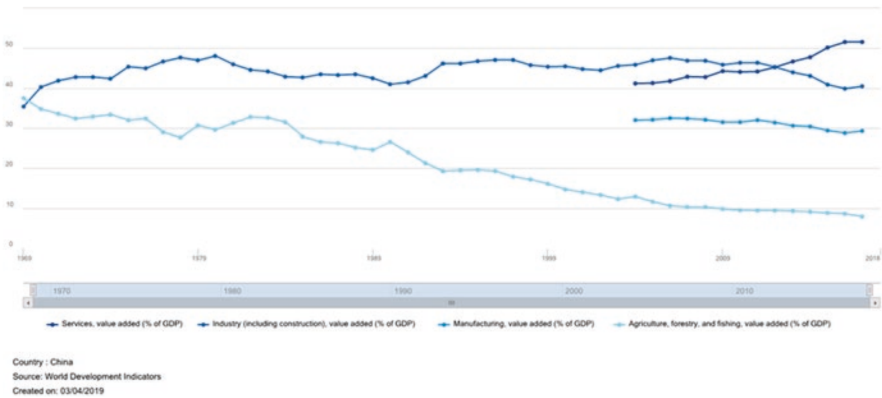
[4] China's PPP GDP overtook that of the USA in 2014 (Mgmresearch 2019).



Graph 1 GDP growth: China, India, US



Graph 2 GDP per capita growth: China, India, US



Graph 3 China: GDP structure

By the inception of the reform period, PRC had already achieved basic industrialization, albeit at a very low level of efficiency that was far from the world's production frontier. Afterwards, the industrial sector boomed, maintaining a share of GDP close to 50% until the beginning of the present decade and moderately declining afterwards. The weight of agriculture ebbed almost monotonically[5], while services were on the rise and overtook industry a few years ago (see Graph 3).

Finance

Traditionally, economic theory explains the existence of finance on the basis of the need on the part of households and enterprises to allow credit to flow from the former to the latter, inter-temporally smoothing expenditure and sharing risks. As the evolution of financial systems has been a major component of capitalist development since preindustrial revolution times, it is not surprising that, as a general rule, a positive correlation exists between financial development and economic growth. This commonsensical finding, however, should not be unwarrantedly stretched to signify that the more finance, the better, no matter what kind of financial system is in fact put in place.

A particularly interesting contribution has been provided by a recent IMF working paper that, on the basis of a comprehensive and wide-ranging econometric analysis, shows that financial development per se is not a panacea for economic growth. Conversely, financial stability exhibits an unambiguous and strongly positive correlation with economic performance (see Naceur et al. 2017)[6]. As many well-known economists have rightly pointed out, the quality and appropriateness of financial institutions—along with other legal, economic, or even social or cultural ones—are what really matters. However, that is about where the consensus among scholars and practitioners stops. Among other institutional variables, the presence or absence of the state (be it direct, via public banks, or indirect, through its regulatory and supervising role) in the financial system is of course paramount and probably the most controversial element (see, e.g., Goldsmith 1969; King and Levine 1993; Levine and Zervos 1998; Acemoglu et al. 2001).

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[5] This declining trend was reversed for a few years in the late 1970s and early 1980s, as the productivity-enhancing impact of the reforms was initially felt mostly in the agricultural sector.

[6] Naceur et al. (2017) analyze a vast database covering a sample of 145 countries for the period 1960–2011.They conclude as follows: "*…, financial development does not appear to be a magic bullet for economic growth. We cannot confirm earlier findings of an unambiguously positive relationship between financial development, investment, and productivity. The relationship is more complex. The influence of the different dimensions of financial development on the sources of growth varies across income levels and regions. Actually, beyond a certain threshold, financial development has been inimical to growth, especially so since the 2007 global crisis. Even more complex and delicate is the relation between financial depth and economic development*" (p. 3).

China's formal financial sector is dominated by a few big public banks, although it also includes a rapidly growing, albeit relatively immature and unstable stock market. As access to the latter has been mostly reserved to state-owned and state-holding enterprises (SOSHEs), both banks and the stock market have fulfilled so far an effective role in channeling abundant domestic savings towards investment-driven economic growth, spearheaded by a sustained accumulation drive in publicly-controlled industry.[7] However, unhealthy social phenomena and overall systemic risks have increased. The main factors behind this worrying phenomenon are:

1. a rise in corporate, local government, and household debt;
2. the proliferation of a booming and poorly regulated real estate market spurred by the privatization of urban housing; and
3. the negative consequences of some policy moves in the direction of financial liberalization.

In this respect, many critics argue that the formal financial sector is still underdeveloped when compared with the rest of China's economy, and that this very underdevelopment acts as a brake on the country's growth. Actually, the very fact that the PRC could achieve such a high rate of growth with such an underdeveloped financial system is seen by some scholars as one of the greatest mysteries of the world development history. Moreover, state banks kept privileging SOEs while starving POEs and household of funds, forcing them to develop alternative shadow credit channels. In their view, shadow banking should now be brought to emerge, state banks should abandon the anti-private bias and increase credit to POEs and households, and China's overall financial system should undergo a thorough process of financial deepening and diversification, liberalization, and international integration (see Allen et al. 2017).

Our perspective is very different, adversarial to such a "financial normalization" perspective. China's extraordinary growth performance has been possible precisely because of its so-called financial underdevelopment, and thanks to the radical difference between its publicly controlled system and the speculative- and crisis-prone ones of capitalist countries not in spite of it. Notwithstanding major inefficiencies, corruption, and waste, the preferential credit bias in favor of central and local governments and SOEs has been macroeconomically and dynamically effective. It has led PRC to maintain a very high investment rate, escaping the worst consequences of the global crisis and fostering the consolidation and modernization of corporatizing strategic public industries. In a complementary fashion, it has also allowed short-termist, profit-hungry POEs to prosper by default, exploiting the market opportunities offered mainly by ever-increasing domestic demand. Conversely, many moves in the direction of financial liberalization (much of which has been allowed to take place by default, failing to sanction the mushrooming of shadow banking and illegal financial deals) have led to dubious outcomes, and should probably be revised.

[7] As pointed out below in Part I, SOEs' and SOSHE's role of investors of last resort has been so far substantially compatible with their relatively low rate of profitability, thereby pushing up aggregate effective demand and PRC's overall growth rate.

Alarming signals have erupted, the most worrying ones being the surge in some categories of debt, the real estate bubble and the speculative and capital-flight driven downward pressure on the renminbi. So far, the state has effectively utilized many of its multiple intervention tools to avoid the materialization of major crises. Yet, an appreciable degree of systemic risk will persist, in the absence of a more forceful restructuring of China's financial architecture that sets it further apart from the sirens of financial liberalization. This task cannot be fully accomplished without a clear-cut class-based policy choice: the state shall dutifully repress the cosmopolitan grievances of many in the middle- and upper-income social groups, who attempt to obtain a factual and formal recognition of their "*human*" *rights* to speculate and further enrich themselves in the name of "*equality*" with their Western counterparts.

This is not to claim that any form of financial liberalization and modernization is to be condemned. PRC's unsophisticated financial system of a couple of decades ago was not perfect and cannot be simply reverted to, due to the challenges posed by globalization and by China's very rapid modernization drive. Some forms of financial innovation, modernization, and liberalization, provided they are implemented in an effective regulatory framework, are a necessary component of China's quest for overall economic modernization. New phenomena such as the e-commerce boom and the diffusion of formal saving and small-scale financial investment habits among the population, while not exempt of risk, embody many positive features, and can facilitate two major strategic goals of China's leadership:

1. making China a moderately prosperous country, letting the majority of the population achieve the living standards of the global middle class;
2. shifting the balance of growth towards qualitative and technology-led improvements and healthy public and private consumption, and less towards investment per se.

Apparently, there are in practice some reasons to judiciously liberalize some niches of PRC financial market. The main purpose is to use them as bargaining chips with (foreign) capitalist trade partners. Some encouragement to innovative small-scale financial innovation might be favorable for IT development. It might also de-potentiate the frustration about financial repression among some professional and entrepreneurial strata that play a crucial role in the country's modernization drive, de-incentivizing financial illegality.[8]

Yet, in our view, financial liberalization in PRC should not go too far. The pendulum has already shifted too much in the direction of petty bourgeois rentier

[8] Moreover, formal credit to SMEs on the part of state banks deserves to be enhanced to some extent. Yet, too much fuss has been done on this issue by orthodox economists. If it were true that POEs in general and private SMEs in particular were so pitifully starved of credit, they could not have experienced such a fast growth in both absolute and relative terms. Product market liberalization has opened ample room for private profit making in manufacturing and financial services. POEs in general do not deserve a particularly favorable treatment on the part of the state, unless they provide special systemic benefits (i.e., in the relatively exceptional cases where they exhibit outstanding R&D and technological capabilities).

mentality, speculation, and lack of repression of mass financial informality and illegality. Real estate speculation, the mushrooming of new and tricky speculative financial vehicles, capital flight and the like cause two evils:

1. systemic financial instability risk;
2. proliferation of nonlabor incomes, rentism, income inequality. These aberrations have already gone too far. They should be reined in and seriously confronted by public policies. It is important not to overlook the lesson stemming from many capitalist countries, where finance has progressively shifted towards providing credit to households and consumption or to other financial entities (fuelling a perverse Ponzi-style M-M-M spiral), rather than to nonfinancial firms who engage in real investment. Hyper-financialization has led to very negative economic and social outcomes—as it has been acknowledged, for instance, by a recent IMF paper on financial deepening (see Naveur et al. 2017; Arcand et al. 2012).

One area of particular concern in China' financial landscape is the stock exchange market. It should be kept heavily regulated and shelved from the inordinate access of noninstitutional investors. Household access to financial forms of investment different from deposits and state-sponsored structured saving plans should be severely restricted. Barring specific and circumscribed exceptions, financial repression shall keep playing its crucial strategic role.[9]

Trade

The weight of imports and exports in China's economy and the role of China's in world trade were very modest during under the pre-reform period. Both began to increase in the 1980s and skyrocketed in the 1990s, leading to a sizeable trade surplus. China's exports rapidly became more sophisticated (largely thanks to processing trade), and they spread to more and more new sectors and subsectors. Yet, China's export structure also became increasingly specialized.

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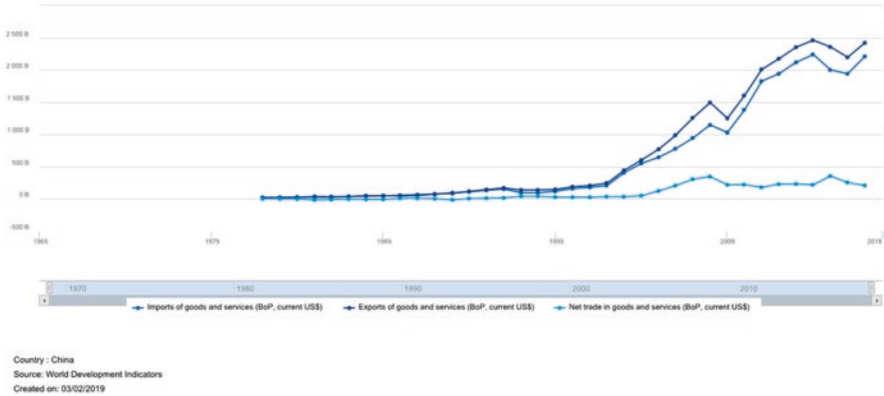
[9] Financial repression in China has been severely criticized by many orthodox scholars, among them Li (2001) and Lardy (2008). The problem with their approach is that—as it is typical of neoclassical aloofness from real-world problems and priorities—they gravely underestimate (or simply ignore) that financial repression plays a crucial role in securing and strengthening the party's capability to maintain its control on the commanding heights of the economy, to forcibly steer huge funds towards priority investments, and to preserve its independence from domestic and foreign financial capitalists. Guandong Xu (2018) also shares the typical Western view, according to which "*Financial repression has seriously damaged the sustainability of China's economy by decreasing economic efficiency*" (p. 28) and is alarmed by the fact that "*The severity of repression in China's financial sector increased to an unprecedented level after 2008, when the Chinese government poured enormous financial resources into the economy as a response to the financial crisis*" *(ibid.)*. However, he realistically believes that "*financial repression may be maintained in the future…because for the Chinese Communist Party control over financial resources is a powerful weapon that can be used when necessary to address certain economic, political or social problems*" *(ibid.)*.



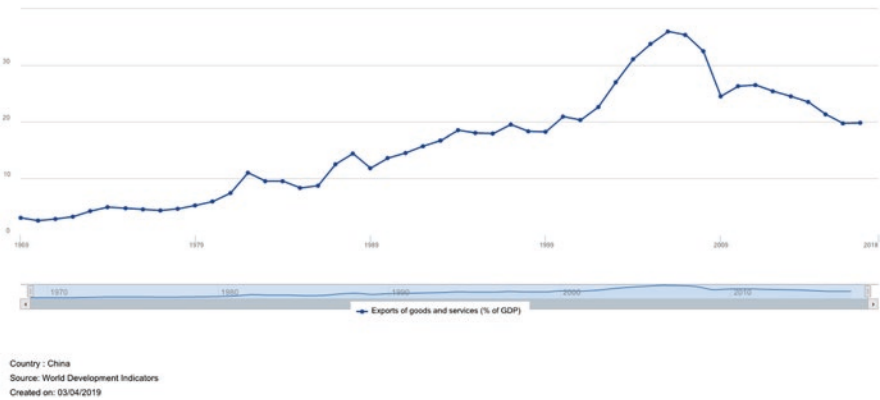
Graph 4 China: trade in goods

Since the early 1990s, "*China's exports have jumped more than tenfold, far exceeding the tripling of world trade that has taken place over the same period. As a result, in 2004, China overtook Japan as the world's third largest exporter, just behind Germany and the United States*" (Amiti and Freund 2007).

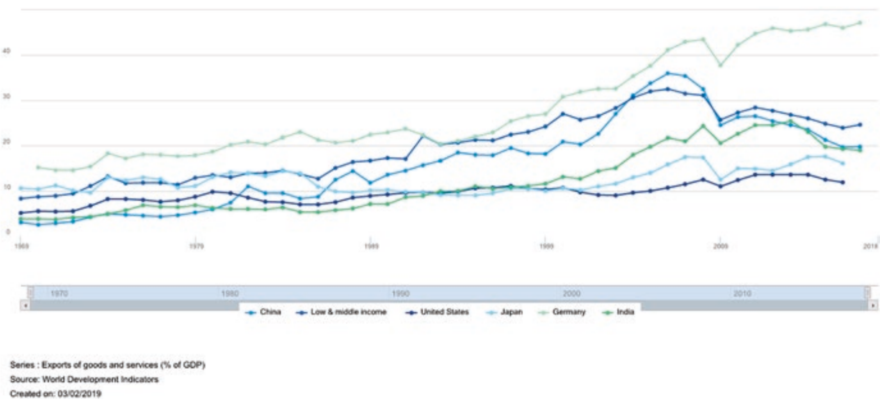
This dramatic transformation of China's export structure was achieved largely due to the increasing flexibility of its business environment, enabling firms to move in and out of different sectors and to take advantage of a large and still cheap supply of labor, inserting themselves in the international manufacturing value chains driven by globalization. The cost of opening a business in China was also relatively low. Initially, China managed to export increasingly sophisticated products by assembling high-quality duty-free imported inputs. With time, domestic enterprises enhanced their technology absorption capabilities, upgraded their positioning in the global value chains, and allowed China's indigenous manufacturing industry to decrease its degree of dependency on foreign TNCs.

The trade ratio (exports + imports/GDP) peaked in the late 2000s, declined, and appears to have stabilized afterwards, as the Government of China (GOC) steered the country towards a partly new development path, increasingly axed on domestic consumption demand (see Graph 4).

In comparative terms, the weight of exports in China's GDP is similar to the average for low- and middle-income countries (a bit lower since the turn of the century). It is higher than those of Japan, the USA, and India, but far lower than that of Germany, which is the true super-mercantilist power (see Graphs 5 and 6).



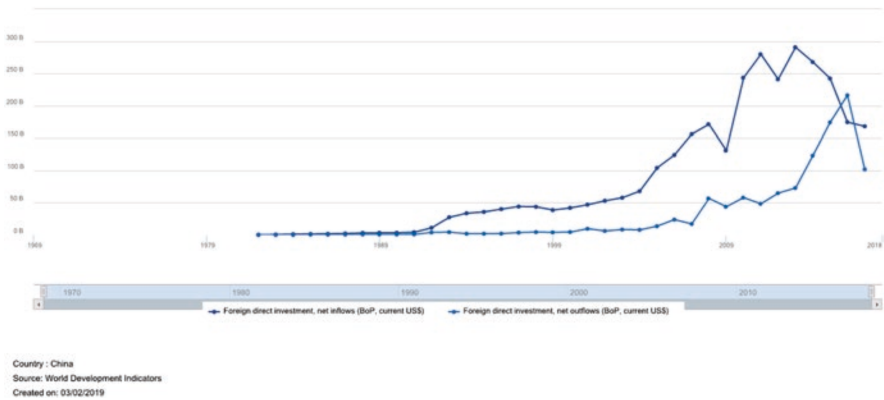
Graph 5 China: exports as a percentage of GDP



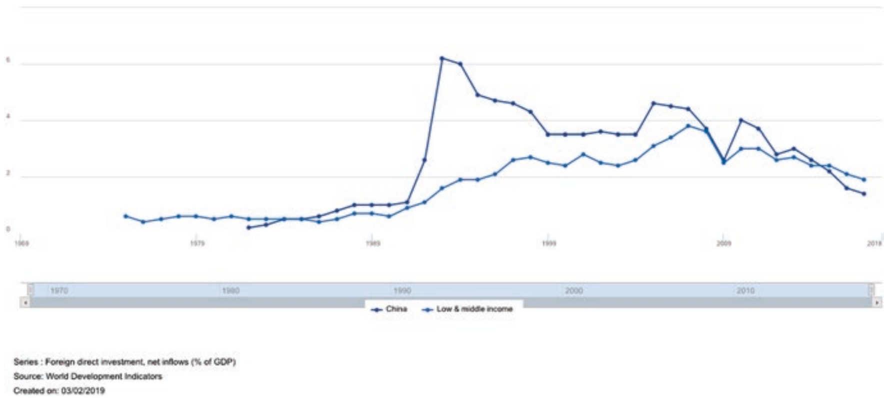
Graph 6 China and other countries: exports as a percentage of GDP

FDI

FDI inflows to China were marginal until the early reform period. They began growing in the early 1980s, climbed since the early 2000s, peaked in 2014, and declined afterwards (see Graph 7). With respect to low- and middle-income countries, the weight of FDI inflows was particularly relevant for China's economy in the 1990s but subsequently subdued to a level similar to that of other members of the group (see Graph 8). Clearly, the sheer quantitative weight of FDI inflows in a country like China does not do justice to their true qualitative impact—especially



Graph 7 China: FDI inflows and outflows (current US $)

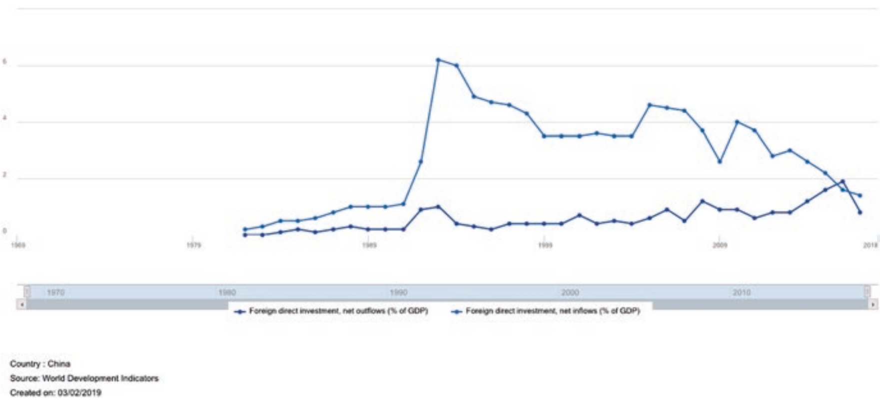


Graph 8 China and other countries: FDI inflows

with respect to technical progress. Initially, Chinese firms had a very low absorptive capacity and could not be very effective in acquiring and mastering absorb advanced foreign technologies, due to their own backwardness and to the inadequacy of domestic institutions in fostering FDI spillovers (Haiyang 2005; Dianchun and Yu 2008).

However, domestic enterprises' absorptive capacity and their capability to fruitfully enter into trade and technologically arrangements with foreign investors improved over time. FDI also contributed to China's technical progress through more indirect channels, such as enhancing competition in the national market and pushing domestic enterprises towards investing more in R&D (Haiyang 2005; Wang 2007; Ni 2008; Yuanhaia et al. 2010).

Industrial and technological policies of the central government (that were carefully preserved after the hard negotiations that led China to accede the WTO in 2001) made an important contribution, among other things imposing as condition to



Graph 9 China: FDI inflows and outflows (% of GDP)

foreign investors to enter into joint ventures with domestic (mostly SOE) firms. Although not formally made explicit in the wording of the laws, these polices gave Chinese firms strong leverage to impose a certain degree of effective technology transfers to their Western partners (see Sect. 6.11).

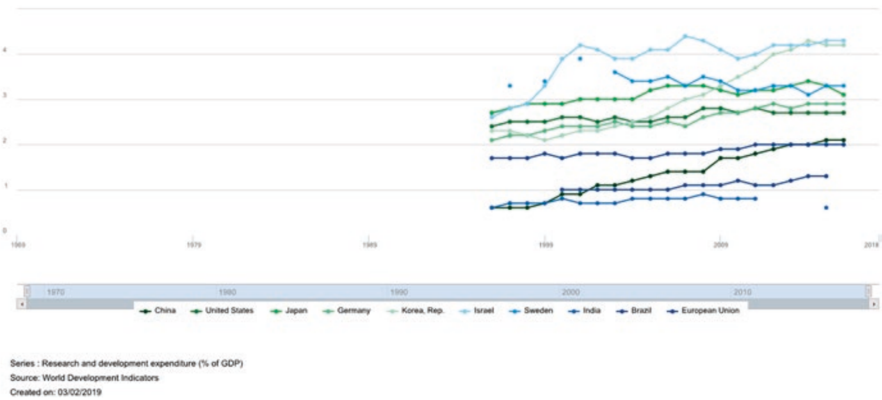
However, from a structural viewpoint, China's accumulation has never been overdependent on foreign capital. This fact constitutes a major difference with respect to Vietnam, where the role of FDI in the overall development process since the inception of the Doi Moi has been and is still paramount.

The impact of international capital inflows on China's economy was overwhelmingly positive (contrary to the case of many other developing countries) mainly because China—due to its peculiar economic, financial, and institutional structure—let alone its sheer size—never acted as a lackey of foreign TNCs. The PRC maintained strong capital controls, did not open up wantonly and prematurely its own financial market, and almost exclusively allowed international capital inflows in terms of real, greenfield FDI[10] (Prasad and Wei 2005; Liu 2007).

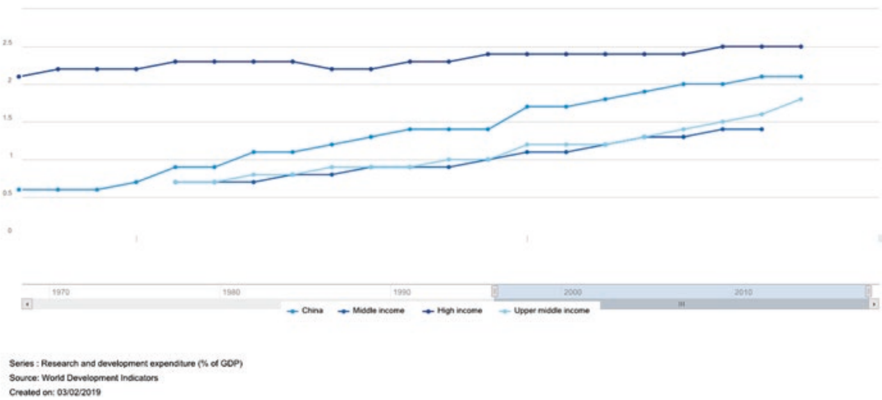
China began to act as a major international investor only in the new century. Net FDI outflows rose very rapidly, and in 2017, they even overtook FDI inflows (see Graphs 7 and 9). Since the launch of the Belt and Road Initiative (BRI) in 2013[11], China

[10] Since the turn of the century, when it had already achieved a big structural trade surplus and accumulated huge foreign exchange reserves, China partially liberalized its financial markets and welcomed selected and regulated inflows of non-*greenfield FDI and other forms of financial investment.*

[11] "*The BRI comprises a Silk Road Economic Belt, a transcontinental passage that links China with Southeast Asia, South Asia, Central Asia, Russia, and Europe by land, a twenty-first century Maritime Silk Road, a sea route Europe by land, and a twenty-first century Maritime Silk Road, a sea route connecting China's coastal regions with Southeast Asia, South Asia, the South Pacific, the Middle East, and Eastern Africa, all the way to Europe. The initiative defines five major priorities: policy coordination, infrastructure connectivity, unimpeded trade, financial integration, and connecting people*" (EBRD 2018).



Graph 10 China and other countries: R&D/GDP ratio



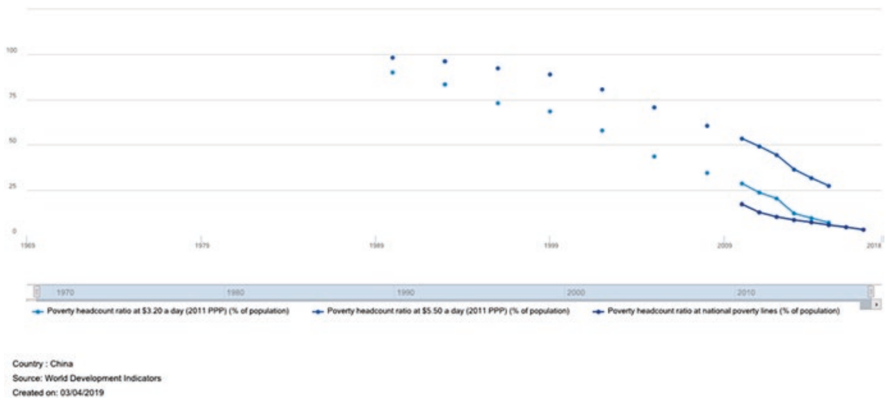
Graph 11 China and three country groupings: R&D/GDP ratio

has taken a paramount role in the realm of global international investment (see EBRD 2018; Belt and Road Portal 2019).

R&D and Innovation

China's R&D/GDP ratio was below 1% until the turn of the century. Since then, it has been continuously climbing, while it has been stagnating in the USA and in most other advanced capitalist countries.[12] It recently overtook the EU average and is

[12] The only advanced country where R&D intensity has been historically raising fast in the twenty-first century is South Korea.



Graph 12 China: poverty decline

progressively approaching that of the USA. China's capability to earmark national resources towards R&D is unmatched among developing countries (see Graphs 10 and 11).

Since 2011 China is the world leader in terms of patent applications by residents.[13]

Poverty and Inequality[14]

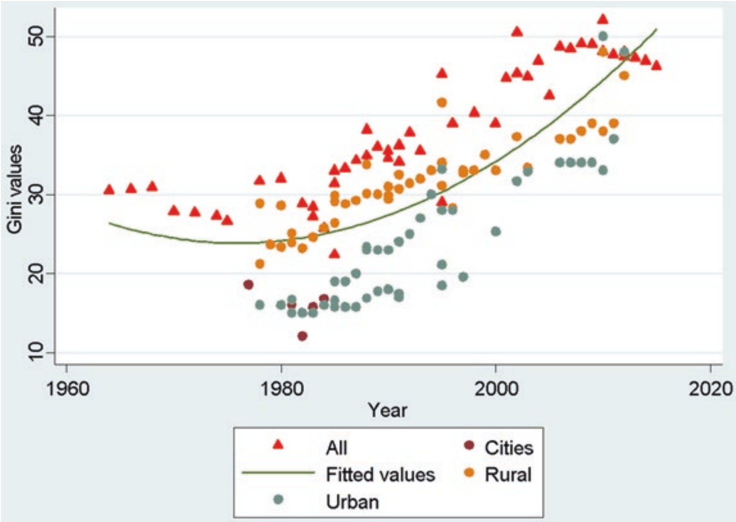
Graph 12 shows the sustained declining trend of poverty in China. Such a record in long-term poverty reduction is unique and historically unprecedented for any large country in the world. PRC appears on track to achieve one of its key human development goals: to completely eliminate absolute poverty by 2020.

Such an outstanding record in poverty reduction took place in the midst of a long-term trend towards increasing income and wealth inequality since the inception of the reform period:

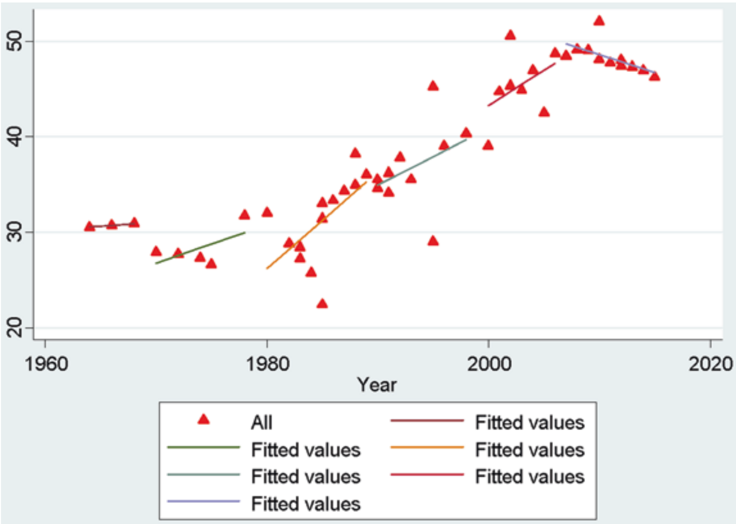
> "… Ning Jizhe, head of the National Bureau of Statistics (NBS), said that income inequality remained "relatively serious" at 0.4 in 2017, as measured by the Gini coefficient….China's Gini coefficient has been standing above 0.4 for years…. According to statistics from NBS, China's Gini coefficient reached a peak of 0.491 in 2008 and has since then dropped steadily" (People's Daily Online 2018).

[13] Due to the relatively low average quality of Chinese patents, this fact by itself does not make PRC the world leader in innovation proper (see Part II).

[14] The author thanks Francesco Schettino for his contribution to the graphs presented in this section.

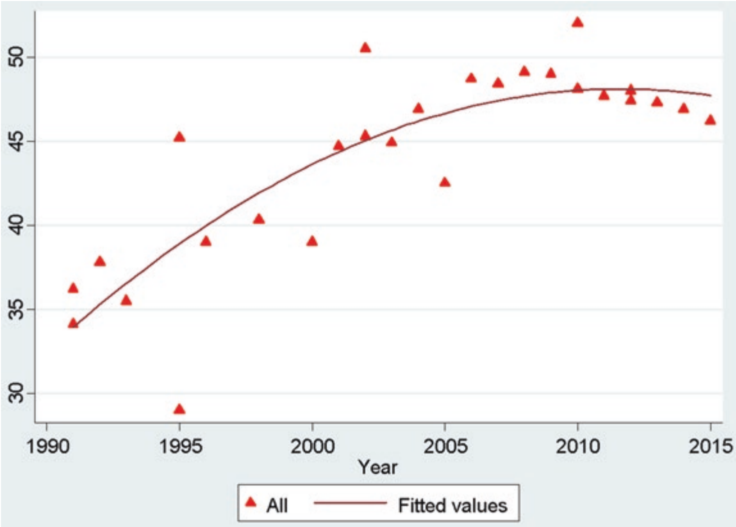


Graph 13 China: Gini scatterplot (1960–2015)



Graph 14 A tentative declining trend in inequality?

Graph 13, based on all available information on China's Gini indexes for the last 55 years (1960–2015), provides further information on the long-term evolution of



Graph 15 Inequality appears to have peaked around 2010

income inequality in the PRC.[15] Two distinct trends emerge: the first one (1960–1980) is declining, and the second (1980–2015) is increasing. In fact, during the reform period the raising trend in the Gini is monotonic, till the first years of new century, when the inequality reaches very high levels. Splitting the sample into rural and urban data, Graph 1 also shows that income distribution is more uneven among rural households than among urban ones. However, recent data show some preliminary evidence of a countertendency during the second decade of the century (see Graphs 14 and 15).

Basic facts on China's inequality are as follows:

(a) Inequality in China used to be quite low in pre-reform times, although a big income gap already existed between urban and rural areas. After the inception of the reforms, inequality strongly increased. Rural inequality has been constantly higher than urban inequality.
(b) The national income inequality level is currently one of the highest of Asia and the world. Wealth inequality, as is the norm in all countries, is far higher and continuously feeds upon itself over time. It has been further exacerbated in urban areas by the rapidly escalating price of housing (see Li and Wan 2015).
(c) As China is continent-sized and the most populous nation on the planet, it would be incorrect to simply compare its Gini to that of *normal* countries. Moreover, China's extraordinarily fast growth track in the last 40 years has been

[15] There are several data sources about Chinese inequality, neither of which is 100% complete. Each Household Survey gives a different picture of the Gini index, principally depending on the sampling technique. The findings exposed in this paragraph are a courtesy of Dr. Francesco Schettino and have been elaborated on the basis of UNU-Wider, CHNS, and CHIP data.

geographically uneven, leading to a degree of inter-province and inter-county differences in average per capita income far higher that the international norm.

(d) This is not to deny that some previously non-existing dimensions of inequality—and particularly those stemming from the emergence of private property and capitalist relations of production and exchange—have progressively become apparent and deeply disturbing, leading among other things to the appearance of a new superrich class.

(e) All social strata experienced some degree of absolute improvement in their standard of living, and such an improvement has been substantial for all but the poorest ones.

(f) Yet, specialized research has also showed that—once the major impact of the overall GDP growth is statistically accounted for—an underlying tendency towards income polarization has also been at work. This finding suggests that some endogenous features of China's development pattern have been intrinsically disequalizing (see Khan et al. 2017).

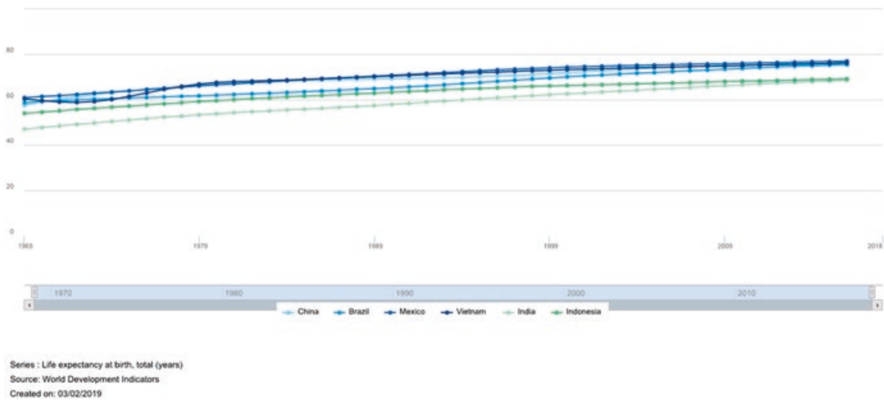
(g) Since about 10 years a decreasing tendency in inequality seems to appear. Yet, the new trend is still too weak and has been unfolding for too little time to be seen as a firmly established one.

(h) On balance, the overall prevalence of various forms of inequality in present-day PRC is severe. Inequality and environment degradation are the two dimensions along which China's socioeconomic fabric is most distant from what could be reasonably regarded as a developed socialist society.

Human Development

In the reform period China achieved important progress in terms of life expectancy—the most elementary indicator of human development. Yet such a progress has not been outstanding, and there has been no clear upward discontinuity in the life expectancy trend after 1978 in spite of far higher GDP growth than in the previous period. The explanation for this apparent puzzle is that faster personal income growth for most people was largely offset by deterioration in public health and other basic services and by increasing inequality. As a result, China's life expectancy is now a la par with that of much poorer Vietnam and with Brazil and Mexico—capitalist countries with a GDP per capita similar to China's, but extremely high inequality levels. Positive policy changes have taken place since the early 2000s, especially in the domain public health. However, they have not yet produced clear-cut, statistically meaningful results in terms of life expectancy (see Graph 16).

Overall human development in the world is monitored by UNDP, which yearly publishes the well-known Human Development Report. In 2017, China's overall Human Development Index (HDI) ranked 86 out of 189 countries in terms of overall Human Development Index (HDI) score. By the same token mentioned above with respect to life expectancy, this less-than-thrilling placement (for a country with



Graph 16 China and other countries: life expectancy

China's unique economic growth record) is essentially attributable to the social contradictions that plagued the first three decades of China's reform era.

However, in the case of HDI, there appears to be firm statistical evidence that the important (if incremental) social policies corrections carried out in China during the most recent period are having a recognizable positive impact. In 1990–2017, China's Average annual HDI growth has been the highest among the 112 countries belonging to the high development group,[16] with its score increasing at an average rate of 1.51% per year. In 2012–2017, China gained 7 positions in its international ranking (source: UNDP 2018).

With respect to the inequality-adjusted[17] HDI index, China scores 0.643, and its rank is 81, better by 5 positions than the non-adjusted one (source: UNDP 2018). This finding suggests that, in spite of being notoriously very high, China's overall degree of inequality is to some extent lower than the average one for other countries at a similar level of human development.[18]

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[16] Among the 38 countries in the medium development group, India also exhibits the same speed of development (1.51). Yet, it has to be taken into account that a negative correlation tends to hold between HDI ranking and speed of improvement (poorer and less developed countries have much more room to improve). Among the more (relatively) advanced medium development group countries, Vietnam also (which, like China, is structurally far more humanly developed than India) scores particularly well (1.41). Only 4 countries in the same group (all of them Asian and poorer than India) score better than China.

[17] The inequality-adjusted HDI index takes into account not only income inequality but also inequality in life expectancy and education.

[18] With respect to their ranking in the (non-adjusted) HDI, Mexico and Brazil lose, respectively, 13 and 17 positions in the inequality-adjusted HDI index, due to their extreme degree of inequality.

Acronyms

AIIB	Asian Infrastructure Investment Bank
ASL	Azienda Sanitaria Locale (Local Health Enterprise)
BRI	Belt and Road Initiative
CEO	Chief Executive Officer
CM 2025	China Manufacturing 2025
CPC	Communist Party of China
CPPCC	Chinese People's Political Consultative Conference
CSHE	Cooperative Shareholding Enterprise
CSY	China Statistical Yearbook
FDI	Foreign Direct Investment
FDIE	FDI-funded Enterprise
FFE	Foreign-Funded Enterprise
GOC	Government of China
HF	Household-based Farm
ID	Identity Document
INCMOEs	Industrial Non-Capitalist Market-Oriented Enterprises
LLC	Limited Liability Corporation
LSC	Land Shareholding Cooperative
LV	Law of Value
MFP	Multifactor Productivity Growth
MNC	Multi-National Corporation
NBS	National Bureau of Statistics
NCMOE	Non-Capitalist Market-Oriented Enterprise
NIS	National Innovation System
OLLC	Other Limited Liability Company
PLA	People's Liberation Army
POE	Privately Owned Enterprise
PRC	People's Republic of China
R&D	Research & Development
RCC	Rural Credit Cooperative
ROIC	Return on Invested Capital

SASAC	Assets Supervision and Administration Commission of the State Council
SCME	State-Controlled Mixed Enterprise
SEF	Socio-Economic Formation
SHC	State-Holding Corporation
SHIE	State-Holding Industrial Enterprise
SMCs	Supply and Marketing Cooperative
SME	Small and Medium Enterprise
SOE	State-Owned Enterprise
SOSHE	State-Owned and State-Holding Enterprise
SRPE	Socioeconomic Relations of Production and Exchange
TFP	Total Factor Productivity
TVB	Township and Village Bank
TVE	Township and Village Enterprise
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USSR	Union of Soviet Socialist Republics
WTO	World Trade Organization

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Chapter 1
Introduction: China as the First Example of a New Class of Social Economic Formations

1.1 This book analyzes two key features of contemporary China: the gradual evolution of enterprise forms since the inception of rural and industrial reforms and the development of a modern innovation system. In this attempt, I strive to focus on the multi-causal processes of change occurring in the underlying socioeconomic relations of production and exchange, with an eye towards identifying relatively deeper causal processes. As emphasized repeatedly in the chapters that follow, these processes cannot be adequately interpreted as a pure manifestation of the simple State vs. Market opposition. In fact, the complex and evolutionary interactions between state-led industrial and other development-oriented policies, on one hand, and (relatively) automatic market mechanisms working in a quasi-by-default manner, on the other hand, constitute the essence of China's distinctive economic model.

Most of this book is devoted to the perusal, interpretation and targeted re-aggregation and re-elaboration of official Chinese statistics, without pretending to extract excessively ambitious and deterministic conclusions from limited available evidence. This task is carried out in Parts I and II.

However, in my view, there is not such a thing as a fully objective and non-ideological human being. Social scientists are far from being an exception. Thus, the least dishonest stance consists in acknowledging our own interpretative standpoint. I briefly expose my one in this introduction.

From an epistemological perspective, the conceptual foundations of this work are those of the Classics and of the Marxian tradition, with the twin categories of mode of production and socioeconomic formation as basic starting points.

A good synthetic definition of mode of production is as follows: "*A mode of production is an articulated combination of relations and forces of production structured by the dominance of the relations of production*" (Hindless and Hirst 1975, p. 9). In most cases, in this book I refer to the concept of mode of production as an abstract archetype, an internally consistent set of rules and laws that are supposed to govern relations of production and exchange according to some principles,

A. Gabriele, *Enterprises, Industry and Innovation in the People's Republic of China*, https://doi.org/10.1007/978-981-15-2121-8_1

and that usually is practically realized in each specific context in the real world only to a limited extent.

The category of socioeconomic formation is less well-known. Here I use it to refer to the "*specific complex of social relations of production and exchange obtaining in a certain country or group of countries during a long period of time*" (Gabriele and Schettino 2012, p. 24).

Yet, I try to partly re-interpreter these foundations taking into account the lessons of historical experience, as tools that can help—along with other ones—to understand twenty-first century complex socioeconomic systems. The latter can be examined through the lens of judiciously juxtaposing their concrete performance with the main tenets of what is theoretically believed to constitute their core principles. In fact, socioeconomic systems can be synthetically described according to their position in a multidimensional space, determined by conceptual vectors that describe key structural economic and social characteristics.[1] Such characteristics have both positive and normative components, and can be quantified *strictu sensu* only in some cases, while in others they can be evaluated only on the basis of heuristic assessments that are arbitrary to some extent (see Elliot's 1978; Gabriele and Schettino 2012). Complementarily, different real-world socioeconomic systems can also be appraised in a comparative fashion.

1.2 This book focuses on the evolution of some key elements of China's ownership relations and planning and governance mechanisms (mostly in the industrial sector), and on the core characteristics of the country's national system of innovation. On this basis, I try to propose a few basic conclusions on two main issues:

1. the nature and effectiveness of the reforms and their impact on economic and technological performance;
2. the validity—if any—of the CPC's official claim that *Socialism with Chinese Characteristics* is a reality,[2] and which are its key challenges and perspectives.
   The first issue is complex and challenging. Yes it is relatively mundane, as it is one more example of a very common type of social science exercise—even taking into account that it is applied to a very large and very special country as

[1] *"Socioeconomic vectors belong to two categories. The vectors of the first category represent structural features of social production relations, and are thus essentially positive in nature. One of the most important vectors describes the relative weight of the State and of the market respectively in regulating economic activities (…).Another structural vector describes the distribution of the ownership of the main means of production. A third vector, strictly related to, yet not identical to the second one, identifies the class(es), or social group(s) controlling the economy as whole, and determining the joint process of accumulation and technical progress (…). The vectors of the second category are normative, and represent the degree of achievement of intermediate (e.g., GDP growth, energy consumption, speed of technical change) and final goals (such as poverty elimination, universal satisfaction of basic needs, equity in opportunities, an ethically and socially satisfactory income distribution, environment protection)".*(Gabriele and Schettino 2012, pp. 29–30)

[2] As will be made clear in the remainder of this book, I maintain that, by and large, China's one is indeed a *socialist market economy*, albeit transiting through a primitive stage of development (see CPC 2017a, b).

China is. Conversely, the latter issue belongs to a qualitatively different epistemological level. In my view, given the peculiar teleological foundations of the Popular Republic of China (PRC), on which the Communist party of China (CPC) justifies its leadership and what it regards as its historical mission, an evaluation of China's development trajectory cannot skip it altogether.[3]

Therefore, it is legitimate and reasonable to critically consider the relationship between empirical and quantifiable socioeconomic realities, on one hand, and the hard-to-grasp, multidimensional, yet far from hollow concept of socialism, on the other hand. However, of course, this issue has to be addressed with particular intellectual modesty. Consistently, I try to discuss it in a very cautious and provisional framework, taking into account inter alia the limited scope of this work. In fact, the core of the book analyzes two key components of PRC's socioeconomic system, but leaves out other very important questions. For instance, I refer only cursorily to the evolution of the state-controlled financial system, to China's unique role in global international trade and to the promotion of the Belt and Road initiative (BRI), and to the relationship between the speed and pattern of economic growth and the emergence of geographic and social imbalances and inequalities (as well as to the targeted policies aimed at reining in them).

A fortiori, this circumscribed study cannot be expected to shed much light on other, even more complex and intricate contradictions and challenges. Among them, the most paramount stem from the interactions and tensions between two distinct, albeit interrelated domains. One is that of economic development, planning and governance mechanisms, and of their impact on measurable socioeconomic indicators such as GDP growth, economy-wide structural change, productivity, poverty, income distribution, and many others. The other domain is the quest for the enhancement of individual freedom, participation and capabilities, as well as the effective realization of *socialist democracy* (see Liangyu 2017).[4]

This books sticks almost exclusively to the first domain. Moreover, it covers only a few of its multiple dimensions (for instance, as mentioned above, it does not explore the very important issue of income distribution). It does not venture into the second one.

Of course, this is easier said than done. Even remaining within the first domain of analysis, I am aware in particular of the risk of falling into a specific epistemic trap. The trap consists in mixing up the positive (objective) level of analysis, with the task of comparing its results with the normative goals that have traditionally been associated with the worldwide socialist movement. In order to minimize this risk, the latter endeavor is only attempted in this Introduction and in Annex A.

[3] On the contrary, leaders in most other countries see themselves as doing their best to improve the welfare of their population following the natural and eternal laws of market economics, without claiming to pursue the establishment of a qualitatively different kind of society.

[4] Xi Jinping, in the opening session of the 19th National Congress of the Communist Party of China (CPC), claimed that "*China's socialist democracy is the broadest, most genuine, and most effective democracy to safeguard the fundamental interests of the people*" (Liangyu 2017). This statement is not likely to be shared by all Chinese and international observers.

1.3 Arrighi's *Adam Smith in Beijing* provides a pioneering, original and deep interpretation of PRC experience as an example of idiosyncratic, non-capitalist, market-creating development embedded in the *longue durée* approach[5]:

> The economic resurgence of China - whatever its eventual social outcome - has given rise to a new awareness among a growing group of scholars that there is a fundamental world-historical difference between processes of market formation and processes of capitalist development. Integral to this new awareness has been the discovery (or rediscovery) that trade and markets were more developed in East Asia in general, and in China in particular, than in Europe, through the eighteenth century. (Arrighi 2007, p. 24)

Arrighi bases his analysis on two pillars. One is Adam Smith's early distinction between market development in general and capitalism (which can be interpreted as constituting only one of its possible variants. The other is the concept of *Industrious Revolution*,[6] a process where markets and demand for commodities expand along a labor-intensive path. Industrious revolutions can unfold without the increase in capital-intensity and major technical changes typical of industrial revolutions, but can be instrumental to create the markets that eventually allow the latter to flourish, along patterns that can differ profoundly in different areas of the world (see Smith 1776; De Vries 1994, 2008; Arrighi 1994, 1999, 2007; Arrighi et al. 2003; Gunder Frank 1998; Sugihara 1996, 2003; Hayami 2015).

In reference to China's case, Arrighi refers in particular to Sugihara's interpretation, who "*conceives of the Industrious Revolution, not as a preamble to the Industrial Revolution, but as a market-based development that had no inherent tendency to generate the capital- and energy-intensive developmental path opened up by Britain and carried to its ultimate destination by the United States… Sugihara's central claim is that the instrumentalities and outcomes of the East Asian Industrious Revolution established a distinctive technological and institutional path which has played a crucial role in shaping East Asian responses to the challenges and opportunities created by the Western Industrial Revolution*" (ibidem, p. 33).

East Asian and China's development gave rise to a hybrid political-economic formation that favored East Asian economic revival, contributing to radically transform the structure of the previously Western-dominated global economy, and questioning existing theories on the very nature of economic development. The Maoist the revolutionary upheaval recovered national sovereignty and established the foundations for modern industrialization, but also resulted in excessive anti-market biases and recurrent systemic disruption. In this context, Deng's gradual reforms can be seen as a sort of vengeance of history, as they progressively steered back the country towards a path of non-capitalist market development not inconsistent with

[5]This historical approach allows researchers to identify relatively constant geographic, geopolitical and cultural factors shaping the evolution of different socioeconomic formations in various epochs in a given territorial space.

[6]The term was first proposed by Akira Hayami in a 1967 study on the Tokugawa period, published in Japanese.

the one the Middle Kingdom had gone through in the most successful phases of its millennial history, before succumbing to imperialist encroachment:

> As Smith would have advised, Deng's reforms targeted the domestic economy and agriculture first. Despite, or perhaps because of, their organizational variety, in retrospect TVEs may well turn out to have played as crucial a role in the Chinese economic ascent as vertically integrated, bureaucratically managed corporations did in the US ascent a century earlier. …As for the appeal of Deng's reforms to the citizenry at large, we must first acknowledge the considerable extent to which the success of the reforms has been based on prior achievements of the Chinese Revolution (pp. 361–369).

Arrighi concludes his magnum opus hinting at a major issue that is quite consistent with this book's quest to shed some light on the ultimate historical significance of China's rise:

> The central question from which we began is whether, and under what conditions, the Chinese ascent, with all its shortcomings and likely future setbacks, can be taken as the harbinger of that greater equality and mutual respect among peoples of European and non-European descent that Smith foresaw and advocated 230 years ago. The analysis developed- in this book points towards a positive answer but with some major qualifications (p. 379).

1.4 Jacques (2009) provides another important and heterodox contribution, clinging more on the political and cultural dimensions than on the economic one.

Jacques' central thesis is that is not such a thing as one, well-defined Western-led modernity. Rather, we are witnessing the birth of multiple modernities. In such a long-term global scenario, China's uniqueness and diversity is the key factor behind China's extraordinary development experience, contrary to the still-widespread belief that its success has been due mainly to the assimilation of Western practices and values[7]:

> The reason for China's transformation (like those of the other East Asian countries, commencing with Japan) has been the way it has succeeded in combining what it has learnt from the West, and also its East Asian neighbours, with its own history and culture, thereby tapping and releasing its native sources of dynamism. We have moved from the era of either/or to one characterized by hybridity …. A key question concerns which elements of the Western model are indispensable and which are optional. Clearly, all successful examples of economic transformation currently on offer are based upon a capitalist model of development, although their economic institutions and policies, not to mention their politics and culture, display very wide variations. (p. 415)

Jacques identifies eight defining differences between China and the rest of the world, that are mostly based on China's peculiar and idiosyncratic culture and history.

First, China is not a conventional nation, but a civilization-state. Second, China will probably try to shape its relationship with East Asia in terms of a tributary-state

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[7] "*The problem with interpreting and evaluating China solely or mainly in terms of the Western lexicon of experience is that, by definition, it excludes all that is specific to China: in short, what makes China what it is. The only things that are seen to matter are those that China shares with the West*." (Jacques 2009, p. 416).

system.[8] Third, Han Chinese' attitude towards race is different from that of other, less ethnically and culturally homogenous peoples. Fourth, China operates on a quite different continental-sized dimension with respect to other nation-states.[9]

> Fifth, the nature of the Chinese polity is highly specific… China has not had organized religion in the manner of the West during the last millennium…The state did not, either in its imperial nor in its Communist form, share power with anyone else: it presided over society, supreme and unchallenged. (p. 424)
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> Sixth, Chinese modernity, like other East Asian modernities, is distinguished by the speed of the country's transformation. It combines, in a way quite different from the Western experience of modernity, the past and the future at one and the same time in the present. (p. 425)
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> Seventh, since 1949 China has been ruled by a Communist regime…. In the light of recent Chinese experience, however, Communism must be viewed in a more pluralistic manner than was previously the case: the Chinese Communist Party is very different from its Soviet equivalent and, since 1978, has pursued an entirely different strategy. It has displayed a flexibility and pragmatism which was alien to the Soviet Party. …Whatever the longer term may hold, the Chinese Communist Party, in presiding over the transformation of the country, will leave a profound imprint on Chinese modernity and also on the wider world. It has …invented and managed the strategy that has finally given China the promise, after a century or more of decline, of restoring its status and power in the world to something resembling the days of the Middle Kingdom. In so doing, it has also succeeded in reconnecting China to its history, to Confucianism and its dynastic heyday. …Given that Confucian principles had reigned for two millennia, the Chinese Communist Party, in order to prevail, needed, amongst other things, to find a way of reinventing and re-creating those principles. (p. 427).
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> Eighth, China will, for several decades to come, combine the characteristics of both a developed and a developing country. This will be a unique condition for one of the major global powers and stems from the fact that China's modernization will be a protracted process because of the country's size: in conventional terms, China's transformation is that of a continent, with continental-style disparities, rather than that of a country. (p. 427)

In my view, this is a very interesting approach. Yet, Jacques pushes it too far, ending up into a sort of reductionism that risks to see the present and the future as little more than the reply of an old movie. Taking into account this caveat, I consider particularly correct and significant:

1. the first and fourth differences, that rightly stress the importance of the size factor, in all is material and immaterial dimensions;
2. the fifth and seventh differences, that identify important linkages between three apparently unrelated phenomena: the exceptionally little role of religion in

[8] This alleged difference is particularly odd. The existence of a tributary system in the past does not imply that China will try to establish its relationship with East Asian neighbors in more aggressive and exploitative terms than with anybody else, taking into account China's national interest and the existing relations of power.

[9] The first and fourth differences rightly stress the importance of the size factor, in all is material and immaterial dimensions.