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THE FUTURE OF THE CHINESE ECONOMY
A cyclical phenomenon or a structural slowdown?

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ABSTRACT

Nel corso degli ultimi decenni, particolare attenzione è stata rivolta, in ambito macroeconomico, allo stupefacente sviluppo dell'economia cinese: un fenomeno capace, nell'arco temporale di trent'anni, di trasformare uno dei paesi con più basso PIL pro capite al mondo nella seconda potenza economica globale, grazie ad un tasso di crescita sostenuto ad un livello vicino al 10% annuo.

Più recentemente, tuttavia, alcuni fattori hanno innescato forti timori per il futuro dell'economia cinese, e dato avvio ad una serie di reinterpretazioni della stessa crescita del gigante asiatico e delle sue prospettive. In particolare: il crollo della borsa di Shanghai nel 2015; la diminuzione, nel corso dello stesso anno, del tasso di crescita annuale del PIL a un livello poco superiore al 6%; un recente rialzo nel livello dei salari che sembrerebbe indicare il probabile esaurimento, nel breve termine, di quella che è stata la principale fonte di vantaggio competitivo nei mercati internazionali per gli esportatori cinesi, ovvero una quasi illimitata riserva di forza lavoro a basso costo.

Nelle pagine che seguono, la performance di crescita dell'economia cinese verrà analizzata con l'aiuto di diversi modelli teorici – dai neoclassici a Solow, da Lewis agli istituzionalisti – al fine di definire tale recente rallentamento come un fenomeno strutturale piuttosto che ciclico e contingente.

Un'ulteriore analisi verrà inoltre condotta relativamente alle conseguenze di tale rallentamento, che sembrerebbe poter essere considerato come l'inevitabile prodotto di qualsiasi transizione da un'economia emergente ad un'economia sviluppata. Ci si interrogherà, dunque, sulla possibilità, per l'economia cinese, di un 'soft landing', vale a dire il raggiungimento di un sentiero di crescita sostenibile, sebbene indubbiamente più 'lento', caratterizzato da tassi di crescita paragonabili a quelli attualmente registrati dalle economie occidentali. A tal fine verrà sostenuta la necessità, da parte delle istituzioni cinesi, di convertire il proprio modello di sviluppo, dall'attuale orientamento all'accumulazione di capitale e all'export, verso una maggiore enfasi su avanzamento tecnologico e consumo interno, e al tempo stesso di affrontare le sfide poste, a livello ambientale e sociale, da un sistema economico-politico ancora ibrido e non democratico.

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I. INTRODUCTION

During the last decades, and particularly since the first years of the new millennium, a narrative has emerged concerning the global equilibria, suggesting that the newly emerging economic power of the People's Republic of China had grown so far as to jeopardize the global leadership of the USA in the medium term.

However, as unrestrained optimism has followed the more than three decades of sustained Chinese GDP growth – at astounding two-digit rates, averaging nearly 10% per year –, symmetrically pessimism has recently started to rise as a consequence of its current slowdown.

The 2015 collapse of the Shanghai stock market, the decrease of the GDP growth rate to a single digit figure – from more than 10% at the beginning of the XXI century to slightly more than 6% in 2015 –, rising wages signalling the likely exhaustion, in the short term, of what had been a nearly unlimited supply of cheap labour and one of China's pivotal sources of comparative advantage in the international markets, have all started to represent causes of concern about the PRC's economic prospects.

Nevertheless, both economic theory and empirical experience show that very high levels of growth cannot be sustained indefinitely, thus suggesting that China's slowdown could represent a natural development of its growth pattern, rather than the temporary effect of a financial crisis.

In this work, it will be argued that such is the case, and China's economic slowdown can therefore be defined as a structural, rather than cyclical, phenomenon.

While acknowledging this structural and necessary nature of the recent developments, however, some pivotal aspects of them still require more in-depth analysis. No developed country is currently growing as fast as China did for three decades, and the first world economy, the USA, is increasing its GDP at an annual rate of slightly more than 2%, thus suggesting that declining GDP growth rates are inherent in any transition from a developing towards a mature economy. What is still unclear is whether China will be able to manage a smooth transition, and transform itself again in order to meet the unavoidable challenges such a transition implies; whether, in other words, China's landing on the ground of a slower, more sustainable pattern of growth will be a 'hard' or a 'soft' one.

II. BACKGROUND

When examining the economic case of China, it is interesting to notice how its very long term model of development could, at least until the first decade of the XXI century, be well approximated by a ‘U’ shape.

Indeed, the Eastern Asian giant’s decline started, following a long ‘Golden Age’, during the last centuries of the second millennium. Per capita GDP fell, from a level similar to the Western European one in the XVI century (see appendix: figure 1), to half its European counterpart in 1820, eventually worsening at the beginning of the XX century, when it roughly equalled 1/10 of the Western countries’ average level (Lo, 2007).

Around the 1950s, China’s fortunes started to improve slightly, while stagnation turned into a slow, faltering growth mainly driven by capital accumulation as a consequence of Mao Zedong’s ascent to power and establishment of a planned socialist economy.

However, only with Mao’s successor Deng Xiaoping and his gradual, pragmatic approach to a mostly successful series of economic reforms, could China’s growth eventually quicken its pace, and be sustained – at nearly 10% GDP increase per year – for more than three decades.

1. An overview of the concept of growth

From an economic perspective, development is often used as a synonym of growth, and measured by one fundamental indicator: the GDP growth rate, showing the speed at which the economic value of a country's output increases in time.

As the ultimate aim of economic policy seems to be a sustained and relatively fast-paced GDP growth, and the economic debate itself is mostly focused on defining and implementing those drivers which are most likely to be conducive to growth, different theories have emerged, especially during the last seventy years, in order to highlight the necessary preconditions underlying economic development, as well as attempting to explain the differences among countries in terms of economic performance (Todaro et al., 2011).

Common to most of these theories is the idea that output growth is the resultant of two pivotal elements combined: capital accumulation (both physical and human capital, including financial assets, equipment, land, inputs, labour, workforce's level of education) and productivity growth, the last one referring to technology, management skills and knowledge increasing the quantity of output which is to be obtained from a given amount of capital, labour, or both – productivity of capital, labour and Total Factor Productivity respectively.

Differences between such theories, on the contrary, mostly focus on the drivers of both capital accumulation and productivity growth, as well as on the contribution of each element to the overall level of growth.

According to one perspective, it is possible to explain the economic performance of most developing countries – of which China, and beforehand the four 'Asian Tigers' of Singapore, Taiwan, Hong Kong and South Korea, represent emblematic examples - as the mere effect of capital accumulation: namely, a high level of savings and a plentiful supply of relatively well-educated workforce (Krugman, 1994).

On the other hand, as first highlighted by Solow (1956) and then Romer (1990), capital accumulation is unlikely to support a sustained and sustainable pattern of growth on its own. Productivity gains, particularly in the form of technological progress, are needed in order to avoid, or postpone, the attainment of the steady state, when returns on capital start to decrease due to depreciation, and output per worker ceases to increase.

2. Explaining the Chinese performance

Although it is likely that both capital accumulation and Total Factor Productivity growth accounted for the economic development of China after 1978 (Hu and Khan, 1997; Lo, 2007; Ding and Knight, 2009; Brandt and Zhu, 2010; Zhu, 2012; Wu, 2014), still much debate exists about the extent of the contribution of each of these factors to the overall GDP growth.

Such a debate seems to echo the arduous interpretation of the previous exploit of the eight High Performing Asian Economies, regarded by some (World Bank, 1994) as a ‘miracle’ of ideal institutions and high productivity and by others (Krugman, 1994) as the simple, one-off result of particularly high levels of capital accumulation.

In the case of China as well, indeed, ‘optimists’ and ‘pessimists’ seem to give opposite interpretation of what is, undeniably, an extraordinary economic performance, allowing output to grow at a fast pace – nearly 10% per year – for more than three decades, and per capita income to multiply by four fold since 1978 (Wu, 2014).

More specifically, Young’s (2003) decomposition of China’s growth highlights a TFP growth of approximately 1.4% per year, representing less than 20% of the total GDP annual increase. On the contrary, Bosworth and Collins (2008) recognise a TFP contribution of nearly 40% (approximating productivity growth to an average of 3.6% per year, out of a total GDP annual growth of 9.3% on average between 1978 and 2004). Other works suggest still different figures, thus highlighting the complexity inherent in the measurements themselves, mostly related to the dubious quality of the data, both about production inputs (capital and labour) and output, sometimes as a result of misleading incentives related to their collection, sometimes as a consequence of the unclear levels of prices originating from a still hybrid economic system.

2.1 The role of economic reforms

While the exact contribution of TFP growth to the overall GDP growth is still disputed, however, a nearly unanimous consensus supports the idea that a pivotal role in underlying productivity gains was played by the partial correction of economic distortions due to the non-market system existing in China, and particularly related to misallocation of resources, fixed prices and misleading incentives.

Indeed, GDP growth started its astounding acceleration soon after 1978, year marking the start of Deng Xiaoping's leadership and of his Comprehensive Economic Reform, aimed at transforming the whole Chinese system from a planned economy into a 'socialist market economy with "Chinese characteristics"' (Hou, 2011).

Chronologically, the first sector to be addressed was, at the beginning of the 1980s, the agricultural one, as Deng's predecessor Mao Zedong had apparently failed in addressing the particularly low level of rural productivity, eventually resulting in the inability to feed the burgeoning Chinese population – leading to the Great Chinese Famine in 1959 - and in the employment of an excessive number of workers in the agricultural sector, without a corresponding increase in output. By contrast, rural reforms enacted by Deng Xiaoping, such as the introduction of the Household Responsibility System, were particularly successful in enhancing the productivity of the rural sector, as they provided more effective, market-based incentives. More specifically, farmers were allowed to sell at market prices the amount of output exceeding the production quota typical of a planned economic system (Hou, 2011; Huang, 2012), and were thus encouraged to increase both their overall level of production and their productivity.

The industrial sector was also addressed by a series of economic reforms, mainly aimed at improving the efficiency of the State Owned Enterprises, and at gradually allowing the emergence and development of a private sector alongside the public one. As a result, overall productivity rose as competition increased due to the newly born private sector, as well as because of the introduction of a system of incentives based on the market-oriented concept of profitability.

A third broad objective pursued by Deng Xiaoping and his successors was the progressive opening-up of the country to the global economy, which was achieved through a three-phased series of reforms involving the creation of Special Economic Zones, the gradual allowance of Foreign Direct Investment and partial liberalization of the financial sector, and the entrance in the World Trade Organization. Such an opening-up arguably resulted in both a far greater contribution of trade – and particularly exports – to the Chinese economy and GDP growth, and in technological spill-overs allowing China to catch up with more advanced economies (Perkins, 1994; Hou, 2011).

Overall reforms, although mainly implemented in a gradual, unconventional pattern allowing them to adapt to the Chinese national and local reality (Qian, 2002; Fan et al., 2013),

were arguably aimed at addressing the distortions of the pre-existing non-market system, by introducing both market prices and incentive systems, thus suggesting that China's growth could be almost entirely explained, from an institutional perspective, as the result of the mere correction of distortions and, as such, arguably a one-off phenomenon, unlikely to be repeated.

2.2 The Lewis model

Reforms undoubtedly played a pivotal role in transforming China's socialist, planned and rural economy into a 'socialist market economy' characterized by a strong preponderance of the industrial, and particularly manufacturing, sector.

However, if rural reforms were fundamental in introducing quasi-market incentives as well as in encouraging productivity growth in the agricultural sector, the phenomenon of structural transformation cannot be fully explained without the contribution of Lewis' (1954) model, which is particularly effective in schematizing the development pattern of most recently industrializing economies.

According to Lewis, indeed, GDP growth is ultimately the result of the massive transfer of work force from a traditional, rural sector towards a modern, industrial one, characterized by higher levels of labour productivity:

$$MPL^T < MPL^M,$$

where T and M identify the traditional and modern sector respectively (Zhu and Cai, 2012).

The rural sector is also differentiated from the industrial one by the validity of the inequality:

$$W^T > MPL^T,$$

signalling that wages in the traditional sector, or 'subsistence wages', do not mirror the marginal productivity of rural labour, which is close to 0. As a consequence, the transfer of rural labourers to the industrial sector (where, on the contrary, the equation $W^M = MPL^M$ applies) does not affect the total amount of rural output, but simply increases the level of rural productivity.

Eventually, the employment of rural surplus labour in the higher-productivity sector results in a productivity increase characterizing the economy as a whole, while at the same time encouraging higher levels of investment in the industrial sector - where the returns on capital

are particularly high as wages are kept at a low level by the virtually unlimited supply of labour -, thus boosting overall GDP growth.

Arguably, however, a productivity rise in the rural sector is not only a consequence, but also a pivotal precondition to releasing part of the farmers from their jobs in agriculture (Kennedy et al., 2006; Zhang et al., 2011; Zhu, 2012), and allowing their migration towards industrial areas. Indeed, if the relation $MPL^T \sim 0$ persisted, a considerable amount of rural workers would still be needed in order to produce a sufficient amount of agricultural output.

In the case of China, Lewis' explanation is particularly relevant when the specific conditions characterizing the East Asian giant after 1978 are taken into account: particularly high population growth rates during the 1950s resulted, in the 1980s and first 1990s, in a peaking working-age population, thus explaining the presence of a nearly unlimited supply of cheap labour force migrating from the rural areas towards the newly industrializing coastal areas (see appendix: figure 2). Furthermore, the enactment of rural reforms resulting in higher levels of productivity in the agricultural sector arguably played a pivotal role in releasing several Chinese farmers from their agricultural work, and allowing them to be employed in the industrial sector.

2.3 Harrod-Domar, Solow and the contribution of savings

Alongside particularly favourable demographic conditions, China was also characterized by an outstanding level of savings, both at a private and at a public level, as a result of a particularly high savings rate, peaking at a level of over 53% in 2008 (see appendix: figure 3).

From a neoclassical perspective, high levels of savings undoubtedly play a pivotal role in producing economic growth, as the accumulation of financial capital results in higher levels of investment, and consequently of output.

As shown by the model of growth proposed first by Harrod and then by Domar, indeed, GDP growth ($\Delta Y/Y$) can be expressed by the equation:

$$\frac{\Delta Y}{Y} = \frac{s^G}{c} - \delta$$

where s^G represents the gross national savings ratio, and $1/c$ is the national output-capital or output-investment ratio (Y/K), expressing the amount of additional output that can be

obtained from an additional unit of capital - or investment, as capital and investment are assumed to coincide in the Harrod-Domar model (Todaro, 2011).

Therefore, a direct relationship exists between a country's savings ratio and its level of GDP growth, as opposed to the inverse proportionality characterizing the relationship between capital-output ratio (K/Y) and output growth, highlighting the role of diminishing returns on capital in stifling GDP growth. Symmetrically, a positive role is played by Y/K , being the inverse of c and representing the output-investment ratio and therefore the level of productivity, although no explicit mention is made concerning this last element in the Harrod-Domar model.

2.4 Final remarks about three decades of growth

As more than one single factor seems to have accounted for China's outstanding economic performance during the three decades following Mao Zedong's death, more than one theory is required in order to provide a convincing explanation of it. Apparently, both accumulation of physical and human capital and productivity growth have played a fundamental role, while underlying both of them was arguably the deep structural transformation of the Chinese economy, from a planned, agricultural economy towards a market-oriented, industrial one.

Such a deep and fast-paced transformation was, indeed, the result of the combination of favourable demographic conditions and reforms aimed at changing the institutional framework, with a particular focus on incentives at every level of the Chinese economy, and eventually successful in achieving significant productivity gains. These gains were, in turn, obtained both in the rural sector and in the industrial one, as well as from the massive transfer of inputs between them.

III. CHINA'S TURNING POINT

Since June 2015, the Shanghai stock market has lost more than 40% of its value (Frankel, 2016), thus generating the idea, among investors as well as international observers, that the Chinese economy would be on the edge of a declining slope.

From a broader perspective, the stock market crash seems to be no more than an 'iceberg tip', as suggested by both Frankel (2015) and The Economist (2016): the capital market does not play as significant a role in China as it does in more developed economies, as most of the country's savings are invested in bank deposits and in the housing market (Fang et al., 2015), while the stock market remains much more unstable and 'immature' than most of their Western counterparts, as shown by the reliance of the government on the method of 'circuit breakers' to deal with losses (Biswas and Hartley, 2016).

Indeed, although the current economic slowdown of the world's most populated country is undeniable, its evidence is mainly to be found elsewhere, among 'real economy' data which have recently been showing a decreasing GDP growth rate – well below 7% in both 2015 and the first half of 2016 (Magnier, 2016; Wildau and Mitchell, 2016) from the 10% rate characterizing most of the years before 2010. As for its explanation, the same economic models clarifying China's extraordinary performance since 1978 can arguably also account for its current slowdown.

A GDP growth rate of nearly 10% is, undoubtedly, hardly sustainable beyond the already extraordinary time lapse of three decades, and the models developed by theorists such as Solow (1956), Romer (1990) and Lewis (1954) provide convincing explanations of both China's recent rise to becoming the second world economy and of the current slackening of its economy.

A particularly low starting point, allowing for a faster-paced output growth while tending towards the steady state, technological catching up with more developed economies and structural transformation from agricultural to industrial economy, were arguably one-off factors allowing China to grow at a sustained pace for more than three decades, as were most of Deng Xiaoping's successful attempts at addressing the distortions of a planned socialist economy through the introduction of market-oriented rules and institutions.

However, while it is usually agreed that a bigger economy is unlikely to sustain two-digit growth rates, it is still to be understood whether China's 'landing' on the ground of slow or

stagnating growth, where most developed economies have already been dwelling for decades, is going to be a 'soft' or a 'hard' one (Frankel, 2016).

1. The Neoclassical model

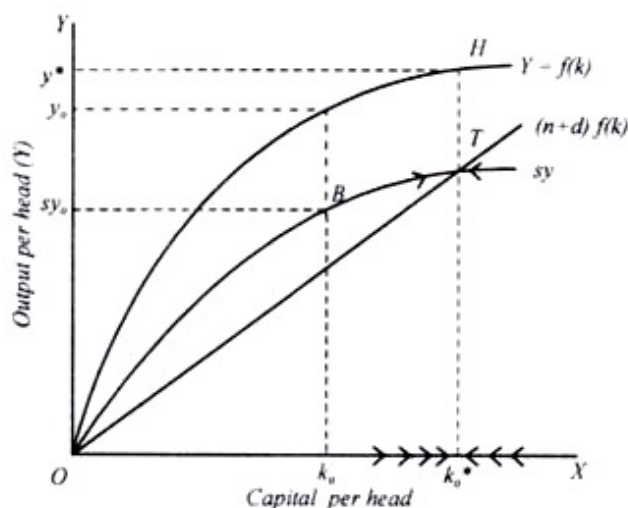
1.1 The first Solow model

According to Solow, probably inspired by the previous Harrod-Domar model, the pace of growth of output per capita in a specific country economy significantly depends on the level of savings (measured by the average saving rate, s) and consequently of capital investments in the short term ($K_{t+1} = (1 - \delta)K_t + I_t$, or $\frac{K_{t+1}}{N} = (1 - \delta)\frac{K_t}{N} + s\frac{Y_t}{N}$), but eventually becomes null in the long term unless productivity growth, only present in Solow's extended model as an exogenous factor, intervenes.

Therefore, the first Solow model is mainly focused on defining the concept of 'steady state', the long-term equilibrium of an economy where output growth equals n , or the rate of population growth, and the level of both capital and output per capita is thus stable.

Nevertheless, even in the long term, the savings rate still plays a pivotal role, as it contributes to the definition of the level of capital and output per capita that are likely to be achieved when the steady-state equilibrium occurs.

In the case of China, both high saving rates (reaching peaks of above 50% in the first decade of the 2000s – see appendix: figure 3) and a particularly low initial level of capital and output per capita – China was the poorest area of the world in terms of GDP per capita at the beginning of the 1980s, as highlighted by Ding and Knight (2009) – contributed to a particularly fast-paced and long-sustained convergence to a steady state which appears not to have been reached yet.



Indeed, the level of GDP per capita is still significantly lower than its high-income economies' counterparts, and if cross-country differences in terms of the output per capita level at the steady state is mainly to be explained by different levels of savings, where a direct proportionality exists between s and Y^*/L (or K^*/L), it is likely that scope for growth is still left to the Chinese economy, although the pace of economic development is likely to slow down as the steady state comes closer (as shown by the convexity of the functions depicted in the graph above).

1.2 Taking productivity growth into account

When the first Solow model - where a long-term equilibrium is to be reached in the form of a steady state when both capital and output per capita are stable, and their growth rates null - is extended, a third element is to be introduced in the neoclassical production function, so that:

$$Y = f(K, L, A).$$

In the equation above, A represents the level of technological advancement, or the Total Factor Productivity, according to different interpretations. In the perspective of this extended model, assuming that A grows at a constant rate g , both capital and output would increase at a rate equal to $n+g$, while their per capita values would grow at a pace equal to g , or the rate of technological development.

According to this model, economy can virtually grow indefinitely, by avoiding the diminishing returns on scale through the productivity gains resulting from technological advancement as well as from an improved allocation of production inputs.

Nevertheless, the nature of technological progress itself seems to provide a further explanation of China's current slowdown, as well as of its past faster-paced growth.

According to Romer (1990), indeed, technology, and progress in general terms, differs significantly from the majority of economic goods, in its being both non-rival and partially excludable. As a non-rival good, it is not subject to the law of diminishing returns, as it cannot be exhausted through repeated use by different economic actors. In addition, its partially excludable nature explains the phenomenon of 'technological spill-overs', namely partial and often casual transfers of knowledge between economic actors, usually taking place, at a macroeconomic level, between countries at different levels of development, usually from the most advanced economies towards the developing ones.

In such perspective, an under-developed economy can improve its productivity faster than a developed one, as it is far less complex to reach the global technology frontier than to shift it outwards.

Indeed, during the last decades, while innovation and productivity gains have apparently played a pivotal role in contributing to China's economic performance, paired with capital accumulation - as the country's economic growth arguably started when China was far from its steady state -, such gains were mainly the result of the country's technological catching up with the most advanced world economies.

This phenomenon was reported by both Romer (2004) and Abrami et al. (2014), and was defined by the latter as 'innovation by acquisition', thus highlighting the fundamental role played by knowledge transfers from abroad – mainly Europe and USA – in the form of both technology and management skills.

1.3 From catch-up to innovation

Recently, indeed, the scope left for catching up with foreign economies seems to have narrowed considerably, as China begins approaching the global technology frontier, and as reported by Woetzel et al. (2015), an 'innovation imperative' is starting to face the second world economy. In order to sustain high levels of economic growth, the East Asian giant should therefore more convincingly embrace a focus on pure innovation, as opposed to imitation and adaptation of foreign technology; a focus for which, however, China still seems to lack a fitting cultural and institutional framework, at least in the short term.

As highlighted by Abrami et al. (2014), indeed, despite significant investment and focus on academic education and research and development on the part of the Chinese government, the institutional and political system is still far from favourable to innovation. The influence of the Communist party is widespread both among firms and at the academic level, with party members playing a huge decisional and control role in boards and committees. The East Asian giant seems to lack that freedom of thought which is undoubtedly a fundamental precondition for pure innovation, as opposed to the mere adaptation of foreign ideas and incremental improvement.

2. Reaching the Lewis Turning Point

2.1 Signals of a structural slowdown

A further contribution to the explanation of China's recent slowdown is arguably provided by the model of Arthur Lewis. As highlighted by both Das and N'Diaye (2013) and Cai (2015), China seems to be currently reaching what is known as the 'Lewis Turning Point', a moment in time or, more likely, a time lapse, characterized by the exhaustion of surplus labour in the rural sector and by consequently rising wages, in turn resulting in lower returns on investments and in a shrinking amount of capital available in the industrial sector.

During its first structural transition, transforming the Asian country from a stagnating rural economy into a thriving industrial one, China had heavily relied on what has been defined as its primary source of comparative advantage in global markets (Cai, 2015), namely a seemingly unlimited supply of cheap labour force.

An inexpensive – but relatively well-educated – workforce, indeed, has apparently been the pivotal element underlying China's role as 'the world's factory' (Zhang et al., 2011; Zhu and Cai, 2012), acting as a lure for Foreign Direct Investment as well as allowing the production of cheap manufactured goods to be exported in order to boost the trade component of China's GDP. During the last years, however, the second world economy has seemingly started to show some signals of rising wages, which are particularly significant when opposed to the stagnating trend of inflation (see appendix: figure 6): Zhang (2012) reports a 13.8% rise in labour costs per employee - measured in Renminbi - in the urban manufacturing sector between 2003 and 2010, while Cai and Du (2011) calculate an average annual growth rate of 10.2% between 2000 and 2010 for the monthly salaries of migrant workers (see appendix: figure 4).

2.2 The demographic factor

Arguably, the development of China's strong comparative advantage in manufacturing at an international level during the last three decades has been significantly linked to the particularly 'favourable' demographic conditions of the 1980s and 1990s, following the demographic boom of the 1950s and 60s.

As a consequence of both a natural trend, as higher levels of development are usually associated with a lower birth rate, and of government policies aimed at restricting an excessively burgeoning population, however, such favourable demographic conditions have

begun deteriorating already at the end of the XX century, when the growth rate of working age population has started to decrease (see appendix: figure 2).

Indeed, as proposed by Feng (2011), who also mentions a ‘young and productive labor force’ among the fundamental factors underlying China’s past economic boom - accounting for an estimated 15 to 25% of the total growth between 1980 and 2000 -, it is likely that the recent weakening of demographic growth, and the increasing dependency ratio, will eventually result in a shrinking economic growth.

Furthermore, Feng opposes the idea that a relaxation of Deng’s one-child policy would lead to a radical change in the short-term scenario of a reduced supply of cheap rural labour. According to his 2011 work, indeed, the Chinese fertility rate decreased throughout the second half of the twentieth century mainly because of ‘individual choice’, which resulted in turn from improving economic conditions, while the government’s birth-control policies played only a secondary role. According to data, indeed, total fertility rate has more than halved, from 5.8% to 2.3%, between 1970 and 1980, some years before the one-child policy was introduced, at the beginning of the 1980s.

	1950	1970	1980	1990	2000	2005
Population size (millions)	552	829.9	987.1	1,143.3	1,265.8	1,307.6
Birth rate (per thousand)	37	33.4	18.2	21.1	14	12.4
Death rate (per thousand)	18	7.6	6.3	6.7	6.5	6.5
Natural increase (per thousand)	19	25.8	11.9	14.4	7.6	5.9
Total fertility rate	5.8	5.8	2.3	2.3	1.6	1.5

Source: Feng, 2011

In this perspective, the recent modification of the one-child policy in order to allow two-children families in 2015 (Phillips, 2015) is unlikely to result in a substantial increase in fertility, as it would be unable to oppose the natural correlation between decreasing fertility and economic growth.

Moreover, in addition to the effect of the overall demographic trends, a fundamental role in accounting for China's development of its comparative advantage has arguably been played by the gradual relaxation of the *hukou* system, namely the household registration system which was introduced in 1958 in order to control migration and labor mobility between rural and urban areas, as well as across different regions (Fang and Dwen, 2005). Although a further liberalization of rural-urban migrations could still play some role in the near future, the large-scale effects of the first liberalization are unlikely to be repeated, thus further increasing the influence of the current negative demographic trends on the short- and medium-term outlook of the Chinese economy.

Indeed, although it is sometimes argued that surplus labour is still largely available to Chinese firms, thus denying that Lewis Turning Point scenario is going to occur, at least in the short-term, data about the actual availability of rural workers are themselves highly uncertain, and figures are often overestimated, as observed by both Zhu and Cai (2012) and Cai (2010), the last mentioning, as responsible for such uncertainty, both the changing sources of employment (increasingly private enterprises as opposed to state-owned enterprises) and the growing importance of informal as opposed to formal employment.

Overall, a 'pessimistic' interpretation seems more convincing, calling for the end of the first demographic dividend – which, according to Lee and Mason (2006) is a period during which the working age population grows more rapidly than the non-productive share of the population, thus lowering the dependency rate and freeing up investment capital - and the exhaustion of what had appeared to be a virtually unlimited reserve of cheap labour to be transferred from the agricultural sector to the industrial one in order to boost both returns on capital and overall productivity.

2.3 The contribution of productivity

Alongside the demographic element, productivity gains at both the rural and industrial level have apparently played a fundamental role in the structural transformation of the Chinese economy as well. Among the drivers of such gains, in turn, the reallocation of factors of production, and specifically labour, seems to have contributed to most part of the overall TFP growth, which can be defined as the resultant of both intra-sector and inter-sector productivity gains, as highlighted by Fang and Dwen (2005). According to their calculations, indeed, a better allocation of workforce alone accounted for 20% of total GDP growth between 1978 and

1997, while intra-sector productivity, or technical advancement, contributed to a far lower 3% during the same years (see appendix: figure 7).

As reported by Zhu (2012), however, the contribution of inputs reallocation from agriculture to the industrial sector to the overall productivity growth has arguably decreased over time. Indeed, as a result of the decline of the agriculture's share of the Chinese economy as a whole, both in terms of employment and value added, the rural sector has shrunk in its contribution to productivity growth from a percentage of 2.1% per year between 1978 and 1988 to one of 0.6% between 1998 and 2007, thus also reducing the extent of the reallocation of rural inputs to the industrial sector. In addition, such a decreasing trend seems likely to persist in the future, thus reducing the prospects of productivity growth to its intra-sector component, namely the one resulting from technological progress as opposed to simple inputs reallocation.

Undoubtedly, the decomposition of economic growth into its main drivers – physical and human capital, labour and productivity – is not devoid of complexity, and particularly so in the case of China, where official economic data are often lacking or uncertain (Brandt and Zhu, 2010; Wu, 2014). However, although different figures have been proposed in order to quantify the contribution of productivity growth to overall economic growth – from nearly 15% according to Young (2003), to the more than 77% contribution to per capita GDP growth proposed by Zhu (2012) -, the view highlighting the role played by inter-sector productivity gains in accounting for China's overall economic performance seems quite convincing, as well as particularly effective in accounting for the current slowdown, as the shrinking contribution of inputs reallocation to overall productivity growth can at least partially justify the slower pace of overall GDP growth.

3. A new structural transition

3.1 The Chinese ‘new normal’ and the service sector

As China reaches its Lewis Turning Point, characterized by the exhaustion of rural surplus labour as well as by a far narrower scope for inter-sector productivity gains, part of the labour force currently employed in the industrial sector is likely to undergo a further transfer towards the emerging service sector, characterized by a lower level of productivity (Baumol, 1967), thus allowing a second structural transformation to take place, as well as probably reducing China’s prospects for additional productivity gains.

In Baumol’s (1967) view, indeed, economic activities can be classified into two broad categories, according to their technological structure: the ones that are subject to rapid increases in productivity, and the ones undergoing such increases only at a slow and sporadic pace.

More specifically, the major element of differentiation is the role of labour as a productive input: whether it is primarily an instrument for the attainment of the final product, or whether it is the final product itself, in turn justifies if labour-saving technologies can be introduced - without harming the quality perceived by the final customer – and therefore whether productivity gains can be achieved.

In Baumol’s model, where the only considered input cost is the hourly wage W_t , assumed to be the same across the two sectors of the economy (an industrial sector with productivity growing at a r rate, $Y_{2t} = bL_{2t}e^{rt}$ and a service one characterized by zero productivity growth, $Y_{1t} = aL_{1t}$), relative costs in the constant-productivity sector (C_1/Y_1) rise, as a consequence of wages growing to reflect the productivity gains in the other sector. Eventually, diminishing returns on scale are incurred in the constant productivity sector, thus resulting in higher prices, decreasing demand, and a lower amount of output produced – under the condition of elastic demand. A different scenario, where demand elasticity is low or the goods produced by the constant productivity sector are considered ‘merit goods’ – and therefore the demand is stable as a result of subsidies and incentives provided by the public sector –, would imply that a bigger amount of inputs is needed in order to produce the same amount of output.

In the case of China, the share of GDP accounted for by the service sector is currently showing an upward trend, reaching a level of over 50% in 2015, as opposed to the symmetrical decline of the industrial sector (see appendix: figure 11). These figures seem therefore to confirm the pertinence of Baumol’s model and of his explanation of a slackening GDP growth

as a result of the transfer of productive inputs – mainly labour – from a high-productivity to a less efficient sector, in a pattern which is analogous and contrary to the first structural transformation depicted by Lewis’ model.

Nevertheless, a structural rebalancing of the Chinese economy towards services and consumption, even if characterized by a single-digit GDP growth rate, seems rather desirable, to the point of being defined as China’s ‘new normal’ (KPMG International team, 2015); as China is arguably exhausting its main source of comparative advantage, namely an abundant supply of cheap labour, policies should actually be adopted in order to ease and encourage an overall structural change of the Chinese economy as a whole, and eventually achieve a ‘soft landing’ on the ground of a more sustainable pattern of growth.

As suggested by both Zhu and Cai (2012), Das and N’Diaye (2013) and Cai (2015), efforts are required from the Chinese government in order to rebalance an excessively investment-driven, export-oriented economy with a strong focus on manufacturing towards a consumption and productivity-driven one, where the absolute prevalence of manufacturing is challenged by an emerging service sector. Such a structural transformation, even though characterized by a slower pace for economic growth, seems indeed to be an unavoidable element of any transition from a developing towards a developed economy, and thus an objective to be achieved rather than an obstacle to the East Asian giant’s development in the long term.

3.2 A second demographic dividend

Justifying the emergence of a second structural transition is also the idea, proposed by Lee and Mason (2006), that the positive impact of demographic conditions on the economic development of industrializing countries is not exhausted with the first demographic dividend, namely a period characterized by a rising support ratio (the ratio of producers to consumers) and the availability of high amounts of investment capital. On the contrary, a second demographic dividend is likely to follow, as the huge mass of young labourers of the first demographic dividend gets older, and consequently more likely to accumulate financial assets in anticipation of retirement, thus further increasing the availability of investment capital. Financial capital would therefore increasingly replace the human capital of the first structural transition depicted by the model of Arthur Lewis.

As China is currently exhausting its first demographic dividend, the second one is likely to follow in the short term, and could even be already in progress – as the particularly high saving

rates, resulting in high levels of investment as opposed to consumption (see appendix: figure 12) seem to show.

According to Lee and Mason, however, the successful exploitation of the potential of a second demographic dividend is not automatic: effective economic policies are indeed fundamental, especially in China, in order to allow as well as to foster a profitable employment of growing amounts of financial capital, and a further openness to international markets – to be considered not only as recipients of exports, but also at a financial level, as providers of investment opportunities for Chinese savers – is arguably required in order to fully exploit such potential.

4. The role of institutions

4.1 The institutional context

Among the ultimate determiners of growth, institutions have often been named alongside productivity gains and capital accumulation, mostly in terms of a framework of formal and informal rules and social structures, and particularly of incentives, eventually encouraging – or stifling – economic development, as first observed by North (1994). An unfavourable institutional context, indeed, seems to underlie most unsuccessful experience of economic growth, as shown, for instance, by the analysis of the economic performance of several Sub Saharan African countries provided by Birdsall (2007) and Collier (2007), where poverty and underdevelopment appear to be inextricably related to the presence of conflicts and the weakness of institutions.

As the opposite seems to be true as well, in such perspective Chinese institutions, and mainly the series of reforms enacted by Deng Xiaoping after 1978 with the aim of transforming a socialist, planned economy into a ‘hybrid’, ‘socialist market’ one, are likely to have played no less than a pivotal role in accounting for China’s extraordinary economic development.

However, if on one side of the debate the gradualism and peculiarity of Chinese reforms have led many to declare the end of the universal validity of the Washington consensus, with its emphasis on free markets and the absence of state intervention, and to praise the ‘purposive involvement of the state in helping structural transformation’ (Fan et al., 2013), on the other side it has been argued that reforms were only effective as long as they addressed the distortions deriving from a non-market economy, and merely replaced the socialist institutions with market-oriented ones (Qian, 2002).

As well as denying the pivotal role played by the institutions – at least the formal ones – in shaping the Chinese growth pattern, such perspective would also suggest a narrower scope left for institutions to boost economic growth, as the most obvious inefficiencies have arguably been addressed already. Apparently, indeed, the mostly successful correction of the distortions stemming from a purely planned economy, as well as its opening up to the international markets, has played a pivotal role in bringing the Chinese economy closer to the levels of productivity characterizing more technologically advanced countries.

Nevertheless, significant scope seems still to be left for further improvement. According to Zhu (2012), China’s productivity is still less than one third of the US one, while further reforms

reducing the overall level of inefficiencies of its economic system to a level comparable to the American one would likely result in an additional gain, in terms of Total Factor Productivity, of 30% for China's industrial sector.

4.2 The 'Silk Road Vision'

One of the fundamental focuses of more than three decades of reforms in China has arguably been the country's increasing openness towards the international scene. In particular, such a long-term objective has started to be more convincingly pursued since 2001, year in which the East Asian giant joined the World Trade Organization.

The first decade of the twenty-first century has, since then, been characterized by further reforms aimed at achieving a Chinese integration in the global economy, by partially and gradually liberalizing both the trade and financial sector. In order to access the WTO, China's average import tariff has fallen from about 43% to nearly 10% between the end of the twentieth century and 2001 (Singh, 2011), and reforms have been implemented in order to allow inflows of investment from foreign firms to enter China, including the traditionally state-controlled fields of telecommunication and finance, while quota on most of the Chinese exports have in turn been removed by the other WTO members (Chow, 2001).

Apparently, joining the WTO has eventually resulted in substantial benefits for the Chinese economy. Wang (2011) highlights how China's growth indicators significantly improved after its accession to WTO, achieving an average annual GDP growth rate of 10.5%, and of 27.3% for imports and exports, between 2001 and 2007.

In addition, more 'intangible' benefits seem to have resulted from an increased level of competition in the domestic market due to its accession by foreign firms, which contributed to raise the standard of quality and to generate technological spill-overs.

Lastly, China's accession to the WTO seems to have sealed a new period of outward openness for the second biggest world economy, as well as opened the way to other initiatives in this direction. Though ideologically rooted in the era of Deng Xiaoping's leadership, the 'Silk Road Vision' is an example of this, as it has undergone significant developments during the last decade.

While China's GDP growth slows down as its economy rebalances from exports and manufacturing towards domestic consumption and the lower-productivity service sector, indeed,

China's increasing openness to the world economy seems to be resulting in a growing influence of the East Asian giant in the Pacific area, as highlighted by Kynge (2016), who reports how the last three years have witnessed a surge in China's government-backed loans to other Asian economies (see appendix: figure 14).

Such a trend in China's financial support targets appears to be a signal of a broader ideological refocusing, arguably aimed at extending the PRC's economic influence on the neighbouring countries, and prospectively recreating the ancient 'Silk Road' by building infrastructure and developing trade linkages between those countries belonging to the strategic commercial route which centuries ago linked Eastern Asia to Europe and Africa. Such broader plan seems also to be confirmed by China's financial commitment to the establishment of the Asian Infrastructure Investment Bank (Lin, 2016), aimed at providing funds for infrastructure-related projects in the developing world.

The increasing commitment of the second world economy towards both the economies of its geographical neighbours and the developing world in general, paired with its overall openness towards the global markets, while identifying China as a second emerging 'pole of influence' – alongside the USA – is also likely to open new prospects for a healthier, even if slower, economic growth, based on a more balanced contribution of trade and on China's growing influence over global economic policies.

5. The financial side: a temporary crisis

Arguably, a pivotal role in triggering the recent surge of worrying about the fate of the Chinese economy has been played by its financial markets, and particularly by the Shanghai stock market crash, characterized by a decrease of 8.5% in its total value during one single day – the 24th of August 2015, or ‘Black Monday’ as reported by the Economist (2015a).

However, when analysing the recent evolution of the Chinese financial markets, both their effects on the country’s real economy and international repercussions seem to be far less significant and more manageable than the ones stemming from the past US financial crisis.

5.1 The Chinese stock market

High volatility and the frequent succession of peaks and crashes seem to have characterized the Chinese stock markets – both the Shanghai and Shenzhen ones – since their reopening in 1990 (Deng, 2015; Ji and Thomas, 2003).

Furthermore, according to Fang et al. (2015), the Chinese stock market, although big in absolute size – the capitalization of Shenzhen and Shanghai combined equals \$8.4 trillion, the biggest in the world after the US stock market – is still small relative to the total amount of savings available in the country, mostly invested in bank deposits and, more recently, in the real estate market.

In addition to a relatively low capitalization and to a particularly high volatility, the Chinese stock market is also characterized by a low openness to international investors, and, consequently, by a scarce integration with the global financial system (according to Fahey and Chemi (2015), less than 2% of Chinese shares are owned by foreigners), as well as a high degree of public control. Indeed, Shanghai and Shenzhen seem to be characterized by the frequent use, on the part of the Chinese government, of several tools aimed at preventing an excessive devaluation of the Chinese stocks, such as the mechanism of circuit breakers, automatically closing the trading day if the market is down by more than 7%, or the daily price limits preventing individual daily stock prices from falling by more than 10% (Kim, 2016).

Arguably, the combination of the aforementioned issues results in a Chinese stock market which is both still immature and unable to trigger a financial crisis with worldwide effects comparable to the ones stemming from the 2008 US Credit Crunch, thus supporting the idea that Shanghai and Shenzhen can hardly mirror the evolution of the broader Chinese economy

(Riley, 2016) and that, as highlighted by Boskin (2015), China's main issues lay well beyond its financial markets, rooted, by contrast, in the real economy and in its complex institutional framework.

5.2 The Chinese housing market

A better estimation of the Chinese economic performance can be inferred by the evolution of its housing market, which has recently undergone a period of fast rising prices. Several factors underlay the Chinese 'housing boom', among which the sustained growth of per capita income during the previous decades – at a rate of nearly 9% - seems to have played a pivotal role, mostly by generating excessively rosy expectations of a similar growth in the future, and thus encouraging several low and middle-income households to buy new houses at high price-to-income ratios, with the intermediation of the mortgage market. Fang et al. (2015) report figures of nearly 8 for current price-to-income ratios: when forecasts are particularly optimistic, indeed, such ratio is expected to decrease in the near future as a consequence of a rising denominator – income - and families are more eager to sustain higher initial levels.

Another fundamental factor contributing to the recent boom seems to be ascribable to the shortage of investment opportunities facing the high amount of savings available in the Chinese economy. Despite the stock market experiencing a relatively rapid growth in the 2000s, indeed, bank deposits have always been significantly favoured as investment vehicles. However, as real interest rates started to stagnate at an average level of nearly 0.01% in the decade 2003-2013, real estate began representing a relevant alternative for Chinese households. Indeed, returns and volatility are currently more attractive in the housing market than for both bank deposits and equities, averaging annual returns of 15.7% and volatility of 15.4% in first-tier cities (Shanghai, Beijing, Guangzhou and Shenzhen) as opposed to the 7.3% annual return and 51.5% volatility characterizing the Shanghai stock market in the same period.

Nevertheless, similarly to the Chinese stock market, the real estate sector is not devoid of government intervention, arguably resulting in sizeable price distortions. Following the Chinese government targeting of such market as fundamental for the economic development of the country, indeed, its characterization as a 'too-big-to-fall' sector has begun playing a pivotal role in encouraging excessive confidence in an unlimited growth of the level of prices.

Meanwhile, by contrast, intervention of local governments on the supply side of the market have contributed to create a downward pressure on prices, as the public sector has started to increasingly rely on the sale of public land for its own funding at the local level.

The potential – and likely - downward trend of housing prices, paired with the persistence of contrasting expectations of an upward trend for both prices and incomes, could represent a threat to the stability of the economic system as a whole, as the current price bubble could eventually burst if subjected to excessive pressure. If expectations turned more realistic, indeed, aligning themselves to the slackening income growth, house prices would eventually plummet.

However, a crisis comparable to the US Credit Crunch seems rather unlikely: down payments of at least 35% of the house value (38% for the lowest end of mortgage-borrowers) and the nature of Chinese recourse loans – implying the possibility for banks to collect borrowers' other assets in the event of mortgage defaults –, together with the prohibition of mortgage refinancing, lowers the overall level of systemic risk considerably (Fang et al., 2015).

5.3 Financial reforms

The financial sector has been among the last to be addressed by the Chinese government's attempts of economic reform, but is apparently arising as one of the current focuses of economic policy interventions, mainly as a tool to extend the country's opening up towards the global economy to the financial sphere.

According to Prasad et al. (2005) and to Prasad (2016), the main challenge posed to China in its path towards financial development is currently the implementation of an effective combination of financial policies: namely, the establishment of a flexible exchange rate for the Renminbi, the liberalization of the Chinese capital account and the internationalization of its financial markets, in order to allow a more significant participation of foreign investors by removing both formal and informal obstacles.

Prasad et al. (2005) also highlight how exchange rate flexibility should forerun the opening up of the Chinese capital account, as an increased integration with the world economy is likely to result in more frequent and wider financial shocks, thus making the availability of a further 'control tool' – a flexible exchange rate, not pegged to foreign currencies such as the US dollar – pivotal for the Chinese economy and its Central Bank, the PBC.

On the contrary, capital account liberalization, which involves more significant risks, could be implemented successively, in a more mature financial context characterized by adequate sets of regulations aimed at preventing both the outburst of internal financial shocks and the contagion of external ones, as taught by the 2008 Credit Crunch. Allowing the free circulation of financial capital in and out of the country without liberalizing the exchange rate, and consequently the interest rate could indeed result in significant outflows of investment capital, as Chinese savers could choose to invest in the higher-yielding and less volatile liabilities and stocks of more advanced foreign financial markets.

Nevertheless, an open capital account is a fundamental element for a more complete integration of China in the world economy, and is likely to bring advantages in the form of both increasing FDIs and more investment opportunities for Chinese savers, and particularly for the country's emerging middle class, as highlighted by Biswas and Hartley (2016).

Eventually, all of the three above-mentioned elements - flexible exchange rate, capital account openness and more developed financial markets – seem to be fundamental conditions underlying the future status of reserve currency of the Renminbi, which could affect the Chinese economy at both a financial and symbolic level, representing the increased integration of China in the world economy as well as resulting in advantages such as an easier access to cheap foreign credit and a lower currency risk for domestic importers and exporters (Prasad, 2016).

6. The challenges ahead

6.1 The environmental threat

Some additional aspects are to be taken into account when analysing the past and present performance of the Chinese economy. The sustainability of high levels of GDP growth is, indeed, far from unconnected to the political, social and environmental spheres, and these are likely to exert a significant influence on the future development of the second world economy, especially in the long term.

Environmental degradation, in particular, seems to emerge among the most urgent concerns; as highlighted by Albert and Xu (2016), China is currently the world's largest source of carbon emissions, with its huge economy still largely relying on the highly polluting coal (accounting for 64.2% of the total energy use in 2014).

However, in addition to the economic cost of pollution, estimated at nearly 3.5% of GDP, or \$230 billion in 2010 according to Wong (2013), an even higher cost is arguably arising, from a political perspective, for the Chinese Communist Party, as increasingly aware and informed citizens start to show their discontent through frequent demonstrations, both in rural and urban areas – more than 700 demonstrations arose in 2013 according to Albert and Xu (2016).

The huge cost exacted by China's astounding economic growth in terms of both environmental degradation and social unrest is unquestionable. What is still uncertain, however, is how the East Asian giant is going to tackle the challenge of enacting a further transformation of its development pattern, 'from the explosive growth of the past 30 years to the sustainable growth of the next 30 years' (Wong, 2013).

Such a challenge is not only technologically complex, as it would arguably require the second world economy to dismiss coal as an energy source in order to more convincingly embrace greener, renewable sources; it is also characterised by a high political risk, as the Party's legitimacy is almost entirely grounded in a rapidly expanding economy and fast growing income levels, and a trade-off between environmental sustainability and fast-paced economic development, which is likely to be a reality in the short term, would require highly uncomfortable decisions on the part of the Chinese leadership.

6.2 The political threat

Furthermore, environmental concerns are hardly the only cause of political discontent and disorders in the one-party China.

According to Pei (2006), increasing social inequality and widespread corruption, as well as economic inefficiencies arising from China's hybrid institutional system, seem to represent particularly thorny issues for the Communist Party to deal with, and potential 'Achilles' heels' threatening to undermine the legitimacy of the current political system.

Indeed, as shown by the recent evolution of the Gini coefficient - measuring the level of income inequality among a country's population with values ranging between 0 and 1, the first representing perfect equality and the second maximal inequality -, income distribution seems to have grown increasingly unequal during the more than 30 years of China's economic development, from nearly 0.3 to more than 0.5 between the 1970s and 2015 (see appendix: figure 12).

Increasing levels of inequality are arguably both a consequence of widespread corruption and of an extraordinarily fast-paced growth, as the Chinese 'elitist authoritarian regime' allows politically privileged groups to disproportionately increase their wealth, while the state itself is in control of the main economic resources and opportunities (Pei, 2006).

Corruption itself appears, indeed, as an unavoidable appendix of any authoritarian regimes, as the lack of 'democratic constraints from below', paired with the exploitation of information asymmetries with the central government, allows the system's bureaucrats to engage in rent-seeking activities.

Both rising inequality and widespread corruption, being inherent in the nature of the Chinese authoritarian regime itself, could easily endanger the stability of the one-party system, especially if paired with the public opinion's rising concerns for the slowing pace of the Chinese economy.

IV. CONCLUSION

After three decades of extraordinarily fast growth transforming one of the poorest countries in the world into the second world economy, the pace of the Chinese economic development seems to have eventually slowed down.

Interpreting this phenomenon in light of the fundamental economic theories of growth, it has been concluded that the same elements underlying such an astounding economic development as the one experienced by China, can also explain its more recent slowdown.

Being the explanation of the Chinese performance a particularly complex issue, however, more than one model has been used in order to provide a more comprehensive set of causes and mechanisms.

Decomposing the concept of growth into its main components, the role of both capital accumulation and productivity gains has been highlighted in its contribution to GDP growth as a whole.

While different attempts have been made, in the last decades, at quantifying the exact contribution, in percentage terms, of capital and productivity, obtaining significantly different results due to the inherent complexity of such exercise of accounting as well as to the uncertainty of data, there seems to be a widespread consensus concerning the pivotal role played by both factors, and consequently the exclusion of a purely capital-driven or productivity-driven growth. In turn, it is concluded that underlying both capital accumulation and productivity growth was apparently a particularly favourable set of structural and institutional conditions, namely a booming working-age population and a high saving rate paired with a large scope for technological catching up with the most advanced economies and the implementation of mostly successful reforms aimed at correcting the distortions of the purely planned economy of Mao Zedong's age.

Symmetrically, the current slowdown seems to be the consequence of the partial exhaustion of such favourable conditions, and particularly of a worsening demographic dividend and a narrower scope for both technological catching up and efficiency improvements following the correction of the most evident flaws of the socialist system, as well as of the exhaustion of China's fundamental comparative advantage in international markets – the abundant supply of cheap surplus labour.

Therefore, the new trend of a slower, one-digit GDP growth rate can arguably be defined as a structural phenomenon which is likely to characterize the future path of the Chinese economy, rather than the temporary effect of unstable financial markets. More uncertain, by contrast, is whether China's slowdown will be characterised by a 'hard landing', and thus result in a crisis comparable to the 2008 Credit Crunch.

While it is unquestionable that several challenges are posed to darken the future prospects of the second world economy, however, China has already shown in the past an outstanding ability to transform itself in order to emerge from its condition of under-developed country.

Undoubtedly, undergoing a second structural transformation, completing the process of opening up to the world economy, dealing with increasingly urgent environmental concerns and defending the legitimacy of the one-party system while undermined by a context of widespread corruption, rising inequality and a slowing economy are hardly easy challenges. However, if China will manage to transform itself into a more consumption-oriented and innovation-driven economy, while fully integrating itself in the global market, it is likely to persist in its path of development, although at more sustainable growth rates, and eventually achieve a 'soft landing' on the ground of a sustainable pattern of growth.

A large scope for further economic growth seems to be left for China: it is mainly a matter of further institutional reforms and political will to exploit it, by tackling the huge flaws of its hybrid system and encouraging pure innovation by loosening the government control on both academic institutions and the business sector.

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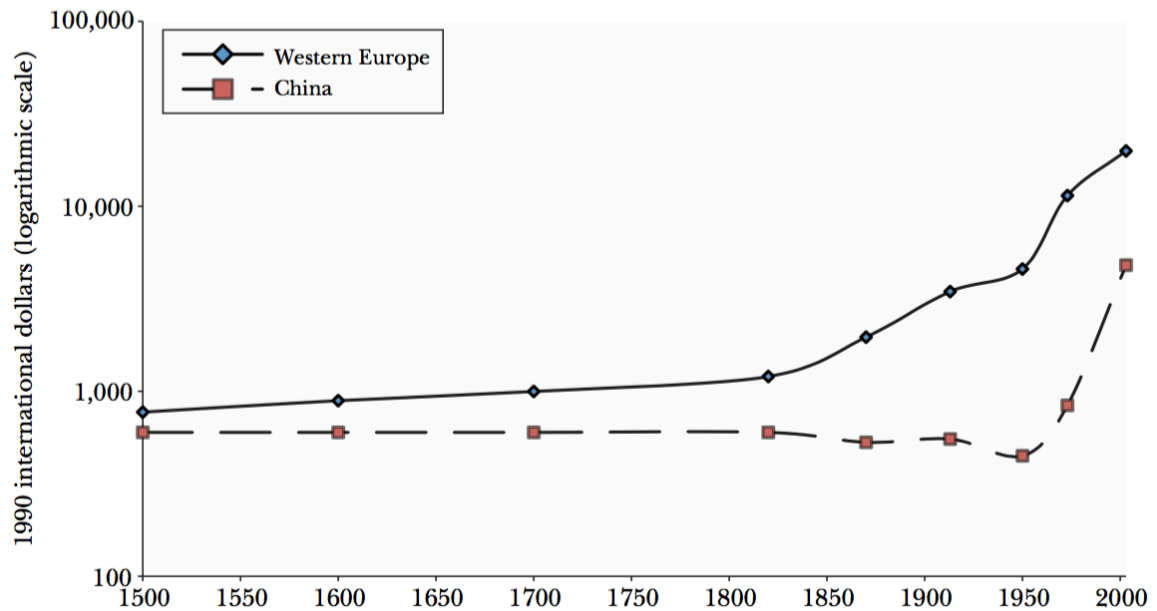
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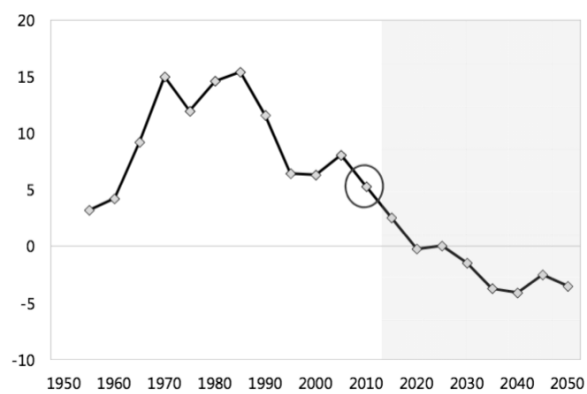
VI. APPENDIX

1. The long-term path of per capita GDP in China and Western Europe



Source: Zhu, 2012

2. Growth in working age population (%)



Source: Young (2003)

3. Gross national saving (as a percentage of GDP): an international perspective

	1990	1992	1995	2000	2005	2006	2007	2008
China ¹	39.2	38.8	42.1	36.8	51.2	54.1	54.1	54.3
China ²	35.6	36.4	38.1	37.3	48.2	49.5	51.8	53.2
India	23.0	21.4	24.5	23.8	34.3	35.8	37.6	33.6
Japan	33.2	33.2	29.3	27.5	26.8	26.9	27.0	...
Korea	37.7	36.9	36.2	33.6	32.7	31.2	30.6	31.9
Mexico	23.6	18.6	21.1	23.8	23.3	25.5
Singapore	43.6	45.8	49.3	46.9	48.7	49.9	51.7	48.3
Australia	18.6	18.0	18.7	19.7	21.6	21.8	22.5	...
Canada	17.3	13.4	18.3	23.6	23.8	24.4	23.7	...
France	20.8	19.6	19.1	21.6	18.5	19.3	19.9	18.9
Germany	25.3	22.3	21.0	20.2	22.2	23.9	25.9	26.0
Italy	20.8	19.1	22.0	20.6	19.5	19.6	20.0	18.2
Switzerland	33.1	28.6	29.6	34.7	36.9	35.5	31.2	...
United Kingdom	16.4	14.3	15.9	15.0	14.6	14.2	15.6	...
United States	15.3	14.2	15.5	17.7	14.6	15.8	14.0	12.1

Note: ¹ expenditure-based estimate of GNS. ² production-based estimate of GNS.

Source: National accounts of OECD countries database; ADB; NSB.

4. Chinese average monthly wage growth



Source: ILO Global Wage Database. World Bank, Accenture Institute of High Performance.

5. GDP per capita growth rates: international comparisons

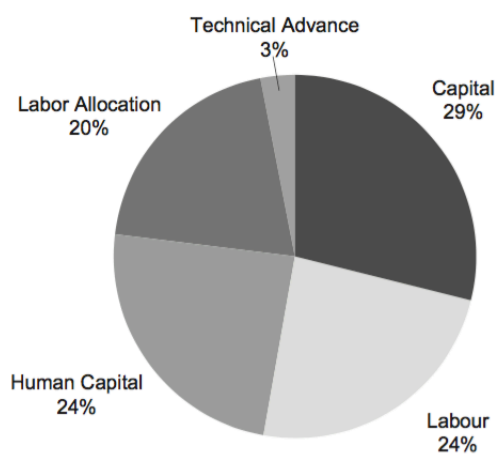
	1980	1990	2000	Average during 1980–2000	Change between 1980 and 2000
<i>GDP per capita growth rate per annum (%)</i>					
China	6.46	2.29	7.64	8.43	1.18
South Asia	3.87	3.42	2.36	3.33	–1.50
Sub-Saharan Africa	1.07	–1.76	0.79	–0.59	–0.28
Latin America and the Caribbean	3.87	–1.39	2.41	0.57	–1.46
High-income economies	0.46	2.26	2.83	2.06	2.37
<i>GDP per capita per annum (constant 2000 \$)</i>					
China	186.44	391.65	949.18	476.44	762.74
South Asia	235.32	327.86	449.60	329.11	214.28
Sub-Saharan Africa	589.60	530.75	515.38	528.72	–74.22
Latin America and the Caribbean	3565.73	3258.70	3852.41	3481.26	286.68
High-income economies	17304.14	21916.68	26368.33	21419.46	9064.19

6. Chinese inflation rate



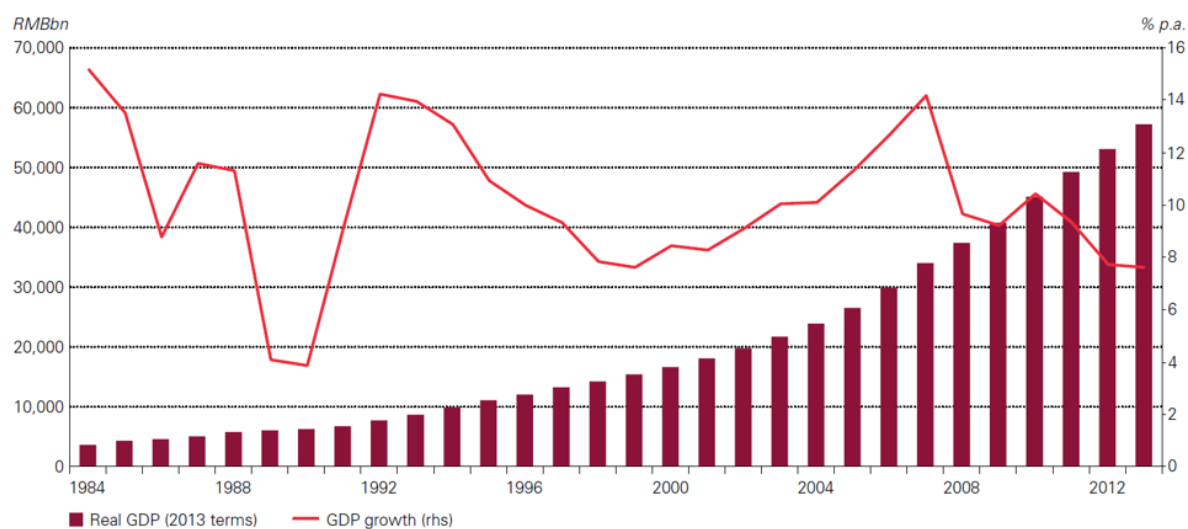
Source: www.tradingeconomics.com, National Bureau of Statistics of China

7. Decomposition of China's growth




Source: Fang and Dewen, 2005

8. Chinese GDP growth



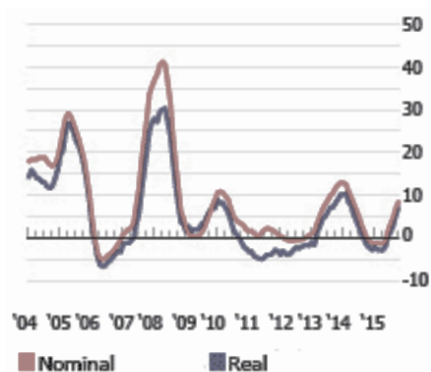
Source: IMF, Precious Metals Insights, World Gold Council

9. Chinese GDP per capita growth (%)

2011	2012	2013	2014	Graph
9.0	7.2	7.2	6.7	

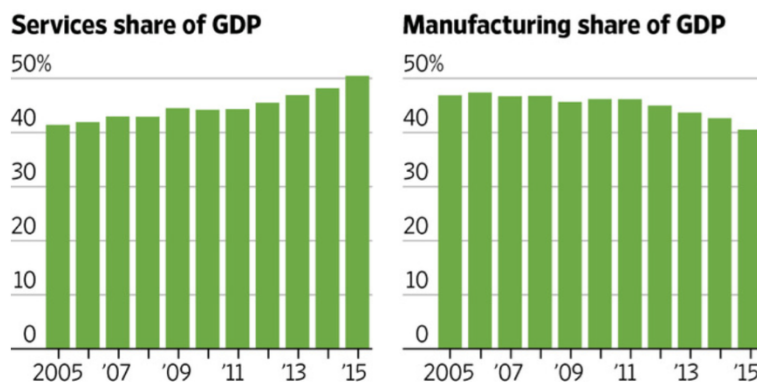
Source: World Bank, available at <http://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG>

10. Chinese annual house price change (%)



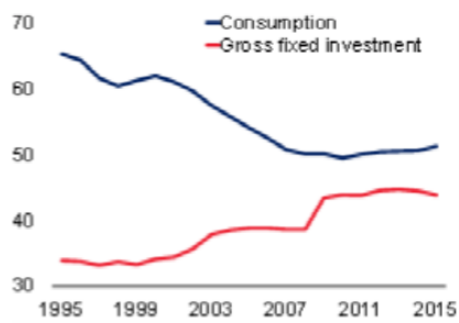
Source: ehomeday, available at <http://www.globalpropertyguide.com/Asia/China/Price-History>

11. Service and manufacturing sector as shares of the Chinese GDP



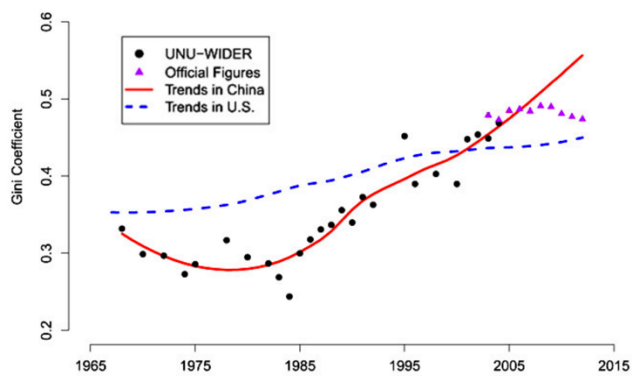
Source: Magnier, 2016

12. Consumption and investment (% of GDP)



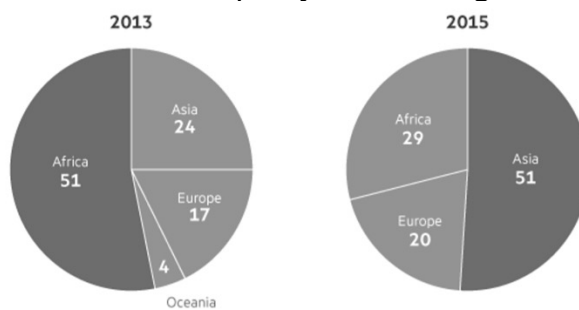
Source: Vashakmadze and Nguyen, 2016

13. Gini Index evolution in China in comparison with the US



Source: 'Income inequality in today's China', PNAS, 2014

14. Focus of Chinese policy bank lending switches from Africa to Asia



Source: Kynge, 2016