

# **“Green Growth” or “System Transition”? Competing Discourses of China’s Past Economic Success and Future Perspectives**

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## **ABSTRACT**

Der Wechsel der Partei- und Regierungsführung in China im Winter 2012/13 wurde von der Erwartung begleitet, dass damit auch ein Wechsel in der Wirtschaftspolitik einhergehen würde. Insbesondere hofften viele Ökonomen, dass sich die neue Führungsriege wieder verstärkt ordnungspolitischen Reformen und einer Stärkung der Marktkräfte zuwenden würde, und sprachen entsprechend von einer „zweiten Transformation“. Im Mittelpunkt des Artikels steht die Frage, wie die konkurrierenden wirtschaftspolitischen Denkschulen in der Vergangenheit die Wirtschaftspolitik der Regierung beeinflusst und im Zusammenspiel mit der entsprechenden internationalen Agenda auf die Nachhaltigkeitspolitik der chinesischen Regierung gewirkt haben und welche Schlüsse sich daraus für die Nachhaltigkeitspolitik der neuen Führungsriege ergeben.

## **1. Introduction**

In the winter 2012–13 China experienced the inauguration of a new leadership generation, which was accompanied by hefty debates about economic policies. At the time, liberal economists had high hopes that the new leadership would prepare China for another “system transition” (*zhidu bianqian*) or “system shift” (*zhidu zhuanxing*) (henceforth “system transition”). In advance to the Third Plenary Session of the Chinese Communist Party’s 18th Party Congress, scheduled for the end of 2013, Chinese economists published numerous books and articles to suggest a new agenda for economic system

reforms and policy changes.<sup>1</sup> Their expectations were met when the Plenary Session indeed produced a decision that was to guide economic policies until 2020. The decision document of the Third Plenary emphasized the necessity of a "comprehensive deepening of reform"<sup>2</sup> and defined a long list of intended market-oriented reform projects, though it did not explicitly employ the concept of a system transition.<sup>3</sup>

Discussion about the necessity of economic policy change did not emerge only in the wake of the leadership change of 2012–13. On the contrary, the years ahead of the leadership change had seen a proliferation of publications and debates both within and outside China about the "Chinese model," its potential end and need for change.<sup>4</sup> This discussion comprised two major aspects. First, the roots and causes of China's past economic success and the potential lessons learnt for other developing countries. Secondly, the challenges faced by the incumbent "Chinese model" and appropriate economic policies to change it in order to prepare China for the future.<sup>5</sup> Thus, even before the leadership change of 2012–13 triggered a debate about a necessary economic system transition, China had been searching for a new growth model.

In this paper, I will argue that a substantial difference exists between the discourses centred on a new growth model and those focused on the system transition and that shifts and contradictions in China's economic policies largely reflect the conflicts between these competing perspectives on China's economy. Although supporters of both discourses ultimately search for the right path to a prosperous and stable society, the proponents of the former did and do so by emphasizing the importance of growth, while the proponents of the latter emphasize the importance of institutional reforms. The "growth model perspective" had (again) been dominant during the later years of the reign of Party Secretary Hu Jintao and Prime Minister Wen Jiabao. In contrast, the leadership shift to Xi Jinping and Li Keqiang opened a window of opportunity to (again) promote the

- 1 See F. Chi, Qiewu jiang "Zhengfu Zhudao" Dengtong yu "Zhongguo Moshi" (By No Means Is "Leadership of the Government" Equal to "Chinese Model"), in: Zhongguo Dangzheng Ganbu Luntan (Chinese Cadres Tribune) (2013) 6, pp. 16–19; J. Wu, Economics and China's Economic Rise, in: M. Aoki and J. Wu (eds.), The Chinese Economy: A New Transition, New York 2012, pp. 13–31.
- 2 Central Committee, Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform, 16 January 2014, [http://www.china.org.cn/china/third\\_plenary\\_session/2014-01/16/content\\_31212602.htm](http://www.china.org.cn/china/third_plenary_session/2014-01/16/content_31212602.htm) (accessed 10 January 2016).
- 3 The Decision document uses the word "system reform" (*tizhi gaige*) quite often, though, and emphasizes the need for system improvements and change in many contexts. See Central Committee, Decision of the Central Committee.
- 4 The origins of the "Chinese model" debate are often identified in the discussion of the "Beijing Consensus" (as opposed the alleged "Washington Consensus" of the Bretton Woods institutions) which emerged in 2004 as well as in the book on "China's miracle" in 1994 which was co-authored by Lin Yifu, who later became Chief Economist of the World Bank. See X. Li et al., Redefining Beijing Consensus: Ten Economic Principles, in: China Economic Journal 2 (2010) 3, pp. 297–311; Y. Fan and W. Zhang, "Xin Changtai" xia Jingji Zengzhang Dongle Jizhi Zhuanxing Sanzhong Jiexi (Three Arguments for a Transition of the Drivers of Growth under the "New Normal"), in: Jingji Wenti Tansuo (Enquiry into Economic Issues) 15 (2015) 10, pp. 171–175; B. Welsh and A. Chang, Choosing China: Public Perceptions of "China as a Model", in: Journal of Contemporary China 24 (2015) 93, pp. 442–456.
- 5 F. Chi, "Zhengfu Zhudao"; G. Li and H. Qiu, "Zhongguo Moshi" Xiang he Chu qu –Yige Jingjishehuexue Fenxi Moxing (Where is the "China Model" Heading? A Socio-Economic Pattern of Analysis), Shehui Kexue Zhanxian 2013 (8), pp. 39–52.

“institutional perspective.” As such, the dominant discourses among Chinese economists reflect and support core ideas of the respective party and government leadership. Today, supporters of the growth and the institutional interpretation of China’s economic success, have to acknowledge the environmental challenges resulting from it. The environmental problems have over the past decades become so obvious that Chinese political leaders can neither ignore the growing worries of the population nor the increasing costs to society. However, ideas for addressing the sustainability challenges differ between the proponents of a new growth model and those of a system transition. Therefore, this paper asks how these two approaches explain China’s economic success story and how they integrate the dimensions of sustainability, while examining their similarities and differences.

Environmental protection and climate change mitigation issues have become important issues in global governance and geopolitics, realms in which the different Chinese governments want to gain a stronger position.<sup>6</sup> Therefore, the Chinese understanding of environmental challenges and their interrelation with economic development has been strongly influenced by the international environmental discourse. Linking the development of this global discourse with differing interpretations of China’s economic success story, this paper argues that the former leadership, inspired by the growth model idea, tried to tackle the challenge of the environmental problems by betting on China front-running in a “global green growth race,” while the current leadership still struggles in the attempt to strengthen market forces, international competitiveness, and environmental regulation at the same time.

Previous research has discussed whether China’s success story constitutes a “Chinese model” and extensive literature as well as policy recommendations exist regarding the necessity of further institutional reforms. In addition, China’s environmental problems, as well as policies to tackle these, have gained widespread attention in the literature. However, both in and outside of China, very few attempts have so far been undertaken to link these issues for the purpose of better understanding the interrelation between economic ideas guiding China’s policies and changes thereof on the one hand, and strategies with regard to sustainability and “green” development on the other.<sup>7</sup> This paper attempts

6 Wang and French argue that even though China seems to claim greater influence in global governance, actual contributions in terms of personnel, finance, and ideas remain very limited. See H. Wang and E. French, China’s Participation in Global Governance from a Comparative Perspective, in: *Asia Policy* 15 (2013), pp. 89–114. Similarly, Conrad showed that China had difficulties to meet the expectations regarding its role in the international arena. Arguably this does not or no longer hold true at least in global climate negotiations. See B. Conrad, China in Copenhagen: Reconciling the “Beijing Climate Revolution” and the “Copenhagen Climate Obstinacy”, in: *The China Quarterly* 210 (2010), pp. 435–455. Ahead of the Paris Climate Conference negotiations in December 2015, the Chinese government made it explicit that China wants to take a more active role in global climate governance. See Y. Qi and W. Tong, China’s “Yes” to New Role in Climate Battle, in: *China Daily*, 4 December 2015.

7 Ho and Wang present a literature review regarding green growth concepts and green growth strategies for China. Interestingly, though, while they give a very concise summary of how the green growth concept emerged and evolved internationally, they ignore the related Chinese discourse; see M. Ho and Z. Wang, Green Growth (for China): A Literature Review, Resources for the Future Discussion Paper 14 (2014) 22, pp. 1–31, <http://www.rff.org/files/sharepoint/WorldImages/Download/RFF-DP-14-22.pdf> (accessed 11 January 2016). Ahead of the up-

to establish this link and to encourage an understanding of China's environment related policies as being embedded in economic discourses and competing interpretations of China's past economic success story and perspectives for the future.

For this purpose, the paper is structured as follows: section 2 introduces the concept of growth accounting as an economic approach to identify drivers of growth and shows how the concept is reflected in central ideas of the "growth model perspective;" section 3 looks into the institutional reform narrative of the "system transition perspective;" section 4 summarizes the process how in the past the global discourse regarding sustainability, environmental protection and "green growth" was integrated into the different perspectives on China's economic success story. The concluding section 5 argues that the current leadership, which is willing to encourage market-oriented reforms, faces major challenges in the attempt to implement environmental and social sustainability-oriented policies without recurring to the logics of the state-led "green growth" agenda and related problems.

## 2. The "Growth Model" Discourse

China's success of the last decades is a story of exceptional growth. High, for many years even double-digit growth rates stand as the main indicator for China's surge from a developing country to a lower-middle-income country. Economic growth has also been the central political imperative in China over many years, not only, but especially so after the country started its "reform and opening up" policies in late 1978.

Economic theory is to a large part occupied with understanding economic growth and the factors that drive it. As Straubhaar puts it, "[g]rowth is not everything, but without growth there is nothing."<sup>8</sup> Growth is the basis for feeding a growing (global) population, helps to overcome challenges of redistribution, and provides means for abating conflicts of interests. In addition, according to Straubhaar, in today's globalized world, countries with longer periods of low growth easily enter a downward spiral as they fall – more and more – behind other countries. Unsurprisingly, developing countries are therefore eager to enter and stay on trajectories of high economic growth rates as a means to overcome poverty and "catch up" with advanced economies.

Economic theory employs different ways of conceiving and calculating economic output (often: Gross Domestic Product (GDP)) and its growth. One popular approach to understand growth is growth accounting, which defines an increase of overall output as the sum of additional contributions from the factors labour and capital on the one hand, and increases of a residual called "total factor productivity" (TFP) on the other.

coming leadership Leonard presented different Chinese schools of thought with regard to models, economy, politics and foreign policy, but left out the topics of environment or sustainability. See M. Leonard, *What Does the New China Think?*, in: M. Leonard (ed.), *China 3.0*, European Council on Foreign Relations, London 2012, pp. 9–24.

8 T. Straubhaar *Why Growth Is so Important*, in: *Intereconomics* 38 (2013) 6, pp. 290–291, 290.

Additional input of labour can reflect an increase of the active workforce, for example, due to an earlier baby boom, a higher rate of employment of women, or the employment of formerly redundant rural workers in industry. Additional input of capital can come from increases in foreign or domestic investment, from private or public investors. The residual TFP is assumed to reflect technological progress. As the latter is difficult to measure or to capture directly from national accounts, TFP is usually indirectly inferred by calculating the contributions of labour and capital inputs to growth, and then deducting these from total output growth. In other words, that part of growth that is not explainable by additional labour and capital inputs is defined as growth resulting from technological progress.<sup>9</sup>

Growth accounting is used for assessing and comparing economic development of different economies, especially emerging economies. It became ever more popular with an article by Paul Krugman published in *Foreign Affairs* in 1994 in which he argued that the alleged economic miracle of the new industrializing Asian economies (Taiwan, Hong Kong, South Korea and Singapore) was by no means as exceptional as assumed at the time,<sup>10</sup> because their economic growth had been mainly relying on additional labour and capital inputs, but hardly on advances in technological progress. Therefore, as the labour and capital would eventually grow slower, so would economic growth slow in the absence of substantial increases in TFP. As a consequence of Krugman's article, which ended with an outlook on China, a large body of literature has emerged to assess the contribution of labour, capital, and technological progress to China's economic growth, though very often such growth accounting exercises for China face statistical difficulties.<sup>11</sup>

Regardless of the technical challenges of applying growth accounting to Chinese data, the general logic of growth accounting has been fully embraced by discussion regarding China's growth model. Following the logic of growth accounting, China's economic success of the early reform decades has been attributed to the abundant supply of labour in the first decades and massive investment in later periods. The increase of the workforce in the 1980s, for example, resulted amongst other from an earlier baby boom that had been encouraged by population policies under Mao Zedong. In addition, many people who had been sent to the countryside during the Cultural Revolution returned to the cities. By the end of the decade, a first wave of migrant workers entered the industrial labour market in southern China's coastal areas. Migrant workers from rural areas became the main factor of workforce growth in the industrial sector throughout the 1990s and in the early years of the new century. To a certain extent, private entrepreneurship in the beginning of the 1990s also implied an influx of workforce into (more) productive sectors, as people voluntarily left the inefficient state sector to create their own businesses. Later, the

9 R.J. Barro, Notes on Growth Accounting, NBER Working Paper 6654 (1998), pp. 1–30, <http://www.nber.org/papers/w6654> (accessed 10 January 2016); C.R. Hulten, Total Factor Productivity: A Short Biography, NBER Working Paper 7471 (2000), pp. 1–75, <http://www.nber.org/papers/w7471> (accessed 10 January 2016).

10 P. Krugman, The Myth of Asia's Miracle, in: *Foreign Affairs* 73 (1994) 6, pp. 62–78.

11 See F. Cai and W. Zhao, When Demographic Dividend Disappears: Growth Sustainability in China, in: M. Aoki and J. Wu (eds.), *The Chinese Economy: A New Transition*, New York 2012, pp. 75–90.

dismantling of a majority of state-owned enterprises (SOE) had a mixed net impact in terms of workforce growth. While many former SOE employees eventually found new work in more productive and efficient sectors, others dropped out of the labour market. However, as much as the large, and abundant, and increasing Chinese workforce has been interpreted as one of the factors contributing to past growth, the foreseeable decline of China's working population due to demographic change<sup>12</sup> has been one of the triggers for the debate about a new growth model.

Huge capital investment is seen as another characteristic of China's past growth model. During the 1980s, the early 1990s, and again in the years following China's accession to the WTO in 2001, foreign investment contributed considerably to capital input growth. For a long time, China was the most important destination for foreign direct investment (FDI) among the developing countries and in Asia. The growth rates of FDI somewhat declined later in the new century, although capital investment still contributed heavily to China's economic growth due to increased government spending. This was especially true in the course of the global financial crisis, when the Chinese government initiated a "stimulus package" to defend China's economy against the impact of declining global demand. However, the positive effect of additional investment on GDP growth has been on the decline for years. Therefore, this reduced impact of investment as driver for growth is another major argument for the need to identify a new growth model.<sup>13</sup>

As additional labour and capital investment are unlikely to sufficiently boost further economic growth, the new growth model discourse stresses the need for China to embark on a new growth trajectory based on knowledge and innovation. In other words, the contribution of TFP or technological progress to growth must be increased. This resonates with Krugman's stance that only technological progress can support a lasting economic miracle. Against this background, the High-Tech Development Plan (2006–2020) propagated by the former Chinese leadership,<sup>14</sup> which stresses "indigenous innovation," fit as well into the new growth model narrative as did the "new emerging strategic industries," which were identified in 2009–10 as an additional remedy against the impact of the global financial crisis.<sup>15</sup>

The importance attributed to the growth factors labour, capital, and technological progress puts the growth model narrative and related policy initiative in a neoclassical tradition of economic thinking. This approach, as mentioned, is not China-specific. However, a growth accounting-based view is rather blind to institutional factors. It does

12 Ibid.

13 World Bank and Development Research Center of the State Council, *China 2030: Building a Modern, Harmonious, and Creative Society*, Washington 2012.

14 State Council of the People's Republic of China, *Guojia Zhongchangji Kexue he Jishu Fazhan Guihua Gangyao (2006–2020 nian)* (Medium- to Long-Term Plan for the Development of Science and Technology [2006–2020]), February 2006, [http://www.gov.cn/zwggk/2010-10/18/content\\_1724848.htm](http://www.gov.cn/zwggk/2010-10/18/content_1724848.htm) (accessed 10 January 2016).

15 State Council of the People's Republic of China, *Guowuyuan Guanyu Jiakuai Peiyu he Fazhan Zhanlǜxing Xinxing Chanye de Jueding* (Decision of the State Council on the Accelerated Support and Development of Strategic Emerging Industries), 18 October 2010, [http://www.gov.cn/zwggk/2010-10/18/content\\_1724848.htm](http://www.gov.cn/zwggk/2010-10/18/content_1724848.htm) (accessed 10 January 2016).

not, for example, address the role of the state in steering the process of workforce growth (or decline), in encouraging private or public investment, or in designing an innovation system that eventually supports technological progress. Therefore, this perspective is compatible with different understandings of the role of the state in the economy. Proponents of a strong role for the government could uphold the “growth model perspective” by arguing that – in a developing country like China – the state is best prepared to steer the shift from labour-intensive to knowledge-intensive production or from labour and capital to knowledge-driven growth. This “growth model perspective” is not necessarily market-oriented.

### 3. The “System Transition” Discourse

In contrast to the growth model discourse which focuses on the drivers of growth, the recent debate about a new system transition stresses the need for institutional and market-oriented reforms. This reform discourse is based on institutional economics, which on the one hand stresses the importance of market prices as coordinating mechanism of economic activities and on the other hand underlines the importance of rule of law, property rights, private entrepreneurs, accountability, and budget constraints to guarantee the functioning of markets.

The promoters of a system transition interpret China’s past economic success story primarily as a transition from a planned to a market economy. From this perspective, fluctuations in China’s economic growth rates over the past decades can be interpreted as periods of reform progress and gridlock. According to this view, China’s economic success was triggered by market-oriented reforms in the late 1970s which first rehabilitated private economic activity in rural areas. These reforms were later expanded to the industrial sector. Reform initiatives such as price liberalization, the introduction of free markets, and the contract responsibility system as well as the liberalization of foreign and private firm market access triggered economic growth throughout the 1980s. The reform initiative stalled between 1989 and 1991 as a consequence of suppression of the protest movement of 1989. Only in 1992 did the government again push for market reforms, following a respective call by Deng Xiaoping on his famous trip to South China.<sup>16</sup> Financial reforms, ownership reforms (de facto privatization of many SOEs), the introduction of private real estate and car ownership as well as enhanced protection of private property during the 1990s were further – though originally highly contested – steps on the way from a planned to a market economy. The accession of China to the World Trade Organization (WTO) in 2001, initiated by the then-Prime Minister Zhu Rongji, was a decisive milestone in this process and geared to further integrate China into the global economy. The accession to the WTO actually served as a means to push for reforms within China. Proponents of system transition could refer to the requirements of

16 W. Zhang, *Ideology and Economic Reform under Deng Xiaoping, 1978–1993*, Oxon 2010.

the WTO to overcome resistance against market-oriented reforms.<sup>17</sup> In sum, the system perspective argues that China's economic success in the past was not a result of government planning and intervention or state-investment strategies. Rather, it was achieved by liberalizing the economy, reshaping it towards a market economy and harvesting the efficiency gains or "reform dividend" resulting from it (see below).

As a consequence, from the perspective of a system transition, the ten year reign of the Hu Jintao/Wen Jiabao leadership has been interpreted as a lost decade.<sup>18</sup> During this period, the influence of the state on the economy, which theoretically had been tamed by ownership reforms in the late 1990s and the principles of the WTO, again increased. This trend, which has popularly been framed as "the state steps in, the private (sector) steps back (*guojin mintui*)",<sup>19</sup> was even further facilitated by the global financial crisis and a huge stimulus package bundled to fight the crisis, because the crisis was used to justify stronger government intervention and the stimulus package helped to expand the influence of state-backed enterprises.<sup>20</sup>

It is against this background that the transition discourse re-emerged in 2012-13 as described in the introduction. Many economists (including a large number of Chinese economists) expected or at least hoped that the incoming leadership would curb state intervention into market processes and reduce government support for state-related enterprises as was expressed in numerous conversations in China with the author during that time.<sup>21</sup> By the time of this writing, while many economists who had hoped for another system transition still insist in its necessity, their mood has become much more pessimistic. In the face of weakening economic growth and perceived slow progress in policy implementation, discussions were abound in 2015 as to whether the new leadership would actually be willing and able to change track and implement another round of substantial reforms.<sup>22</sup>

Referring to the above, China's economic success story of the past can be interpreted quite differently, depending on the economic theories favoured. The juxtaposition of a

17 D. Fischer, *Calculated Risk? China and the WTO* (in German), Reports of the Federal Institute for Russian, East European and International Studies, Bonn 2000; P.B. Prime, *China Joins the WTO: How, Why and What Now?*, in: *Business Economics* 27 (2002) 2, pp. 26–32.

18 I. Johnson, *Chinas Lost Decade*, in: *The New York Review of Books China Archive*, 27 September 2012, <http://www.chinafile.com/chinas-lost-decade> (accessed 10 January 2016).

19 J. Wu, Xin "Guo jin Min tui" Fengxian yu Gaige Gongjianzhan (The New Risk of "The State Coming in and Pushing the Private Out" and a Firm Strategy of Reforms), in: S. Hu and S. Wang (eds.), *Zhongguo 2013: Guanjian Wenti* (China 2013: What Matters Most), Beijing 2013, pp. 126–132.

20 D. Fischer, *China's Policies for Overcoming the Crisis: Old Reflexes or Strategy for a New Reform Miracle?*, in: *German Development Institute Briefing Paper* (2009) 7, pp.1–4, [https://www.die-gdi.de/uploads/media/BP\\_7.2009.pdf](https://www.die-gdi.de/uploads/media/BP_7.2009.pdf) (accessed 12 January 2016).

21 See B. Naughton, *The Political Consequences of Economic Challenges*, in: *China Leadership Monitor* 39 (2012), <http://www.hoover.org/research/political-consequences-economic-challenges> (accessed 10 January 2016).

22 D. Fischer, *Like an Athlete on Dope – China's Economy in 2015 and its Detoxification*, in: *German Chamber Ticker* (2015) 5, pp.18–19, [http://china.ahk.de/fileadmin/ahk\\_china/GC\\_Ticker\\_Landingpage/GC\\_Ticker\\_PDF\\_Versionen/GCT-05\\_0918\\_FINAL\\_\\_2\\_.pdf](http://china.ahk.de/fileadmin/ahk_china/GC_Ticker_Landingpage/GC_Ticker_PDF_Versionen/GCT-05_0918_FINAL__2_.pdf) (accessed 10 January 2016); B. Naughton, *Reform Agenda in Turmoil: Can Policy-Makers Regain the Initiative?*, in: *China Leadership Monitor* 48 (2015), <http://www.hoover.org/research/reform-agenda-turmoil-can-policy-makers-regain-initiative> (accessed 10 January 2016).



“growth model perspective” and a “system transition perspective” helps to identify different possible explanations for success and different interpretations of looming challenges. Of course, it may be overly simplistic to look into just two alternative narratives of China’s success story. However, as will be shown below, for the purpose of showing that different readings of the economic success story have influenced the respective perspectives on sustainability challenges as well as ideas for addressing these, the juxtaposition of the “growth model” and the “system transition perspective” is quite helpful.

#### 4. A Tale of Two Discourses: Embracing Sustainability Challenges

China’s economic development process of the last four decades coincided with a growing global understanding of sustainability challenges. The origin of the global sustainability discourse dates back to the 1972 Club of Rome flagship publication, “Limits to Growth,” which stressed the rapid exploitation of the earth’s resources as a result of a quickly growing global population.<sup>23</sup> At that time, China had just begun to end its long period of global isolation and was still very much struggling with the ramifications of the Cultural Revolution. Only a few years later, in 1978, a Chinese scientist who had studied the scientific approach of the report, emulated it to model China’s population development, thereby preparing China’s one-child policy.<sup>24</sup> Political priority in China at that time was set to balance economic and social development as a fast growing population threatened to inhibit substantial improvements in economic well-being.

In the same vein, when the famous Brundtland report, “Our Common Future,” provided an authoritative definition of sustainability in 1987<sup>25</sup> and stressed the triple character of sustainability referring to economic, social, and environmental sustainability, China’s focus remained on balancing social and economic targets. This implied a strong emphasis on economic growth as the decades before Deng Xiaoping’s policies of reform and opening up had been rather weak in this regard. High economic growth was henceforth stressed as a necessary means to improve people’s livelihood and fight poverty; growth rates became a major indicator for economic and administrative performance. Environmental sustainability on the other hand, did not play a major role. Concerns regarding environmental protection were rather neglected in favour of economic growth.

The next big push for global discourse on sustainability came with the United Nations Conference on Environment and Development (the so-called “Earth Summit”) in Rio de Janeiro in 1992 and was quickly embraced by the Chinese government. The Earth

23 D.H. Meadows et al., *The Limits to Growth: A Report for the Club of Rome’s Project on the Predicament of Mankind*, New York 1972.

24 S. Greenhalgh, *Missile Science, Population Science: The Origins of China’s One-Child Policy*, in: *The China Quarterly* 182 (2005), pp. 253–276.

25 World Commission on Environment and Development, *Report of the World Commission on Environment and Development: Our Common Future*, 1987, <http://www.un-documents.net/our-common-future.pdf> (accessed 12 January 2016).

Summit subscribed to the triple concept of sustainability and decided for a global, multi-level agenda for action, the so-called "Agenda 21." In China, Deng Xiaoping had just re-enforced<sup>26</sup> China's reform policies of reform and opening up with his famous trip to Southern China and the government had soon afterwards officially identified the "socialist market economy" as China's economic target system. In this context, the Chinese government welcomed the global sustainability initiative and prepared a national Agenda 21 throughout 1992 and 1993. The respective "National Agenda 21 – White Paper on China's Population, Environment and Development in the 21<sup>st</sup> Century" was finally approved by the State Council in March 1994 and later that year, the State Council called on government institutions at all levels, to "consider China's Agenda 21 as an overarching strategic guideline for the formulation of economic and social development plans, and particularly to integrate it into the Five Year Plan (1996-2000), plans for the year 2010, and into day-to-day management."<sup>27</sup> In practice, the emphasis was still primarily on balancing economic and social needs, but the agenda included the target to "bring pollution of the environment under control so as to improve the ecosystem and rationally use natural resources."<sup>28</sup> Economic policies, influenced by the global agenda, started to target at "efficient growth" in contrast to "extensive growth," thereby reacting to the fact that exaggerated priority for growth in the 1980s had resulted in rather inefficient production structures and wasteful use of resources.

When the global climate negotiation resulted in the United Nations Framework Convention on Climate Change (Kyoto Protocol) of 1997, China did soon sign it in 1998, but it did so as a non-Annex I country, i.e. as a developing country without specific obligations to reduce greenhouse gas emissions.<sup>29</sup> The Chinese government saw the responsibility for climate change mitigation to be with the developed nations due to their historic contributions to greenhouse gas emissions.<sup>30</sup> In any case, this major event in the global environmental discourse had little impact on national discourse.<sup>31</sup> This was also related to fact that the Chinese government at that time was far more preoccupied with defending China's economy against the Asian financial crisis, coping with decreases in foreign direct investment and addressing inefficiency and debt problems of the state-owned enterprises than with climate change mitigation. In addition, the closure or privatization of many SOEs as part of institutional reforms to strengthen the economy led

26 After the suppression of the urban protest movement of 1989, which had mainly been triggered by contention regarding economic and social issues, the reforms had been stalled for about two years. It took the personal initiative of Deng Xiaoping, who officially was long retired, to revive the reform process in early 1992.

27 UN, Institutional Aspects of Sustainable Development in China, 1998, <http://www.un.org/esa/agenda21/natlinfo/countr/china/inst.htm> (accessed 10 January 2016).

28 Ibid.

29 China Daily, China Ratifies Kyoto Protocol, 4 September 2002, <http://www.china.org.cn/english/China/41661.htm> (accessed 11 January 2016).

30 Information Office of the State Council of the People's Republic of China, China's Policies and Actions for Addressing Climate Change, 2008, pp.1–53, <http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File419.pdf> (accessed 10 January 2016).

31 A. Hu and Q. Guan, *Zhongguo Yingdui Quanguo Qihou Bianhua* (China Mitigates Climate Change), Beijing 2009.

to an unprecedented level of urban unemployment. In this situation, further economic reforms and the preparation of China's accession to the WTO were arguably of much higher importance than environmental sustainability.

The next major event on the global sustainability agenda, the World Summit on Sustainability in Johannesburg, also called the Earth Summit 2002, was staged just shortly before a leadership shift to Hu Jintao and Wen Jiabao in China. It was under their reign that China finally embraced the triple concept of sustainability more actively. Specifically, the concept reverberated in the "scientific outlook on development" propagated by Hu Jintao since 2004, as well as in the later endorsed concept of a "harmonious society." ("A 'harmonious society' advocates an overall, co-ordinated and 'sustainable development' concept, making the interests of different sectors balanced. So long as we follow this 'scientific development' concept, we can get rid of social unrest and the destruction of natural resources that generally occurs in developing nations.")<sup>32</sup> As can be inferred from the above quote, Hu originally put emphasis on balancing economic, social and environmental targets.

However, a new turn to the growth model agenda was already taking shape: a flagship publication on China's sustainable development published in 2007 demanded a new theoretical basis for China's sustainability strategy:

*it is all too obvious, that China's fast development since the Third Plenary Session of the 11th Party Congress [in 1978, D.F.], mainly profited from a reform dividend. [...] Following the increase of China's national power, China is well prepared to derive its future growth impetus from a development dividend (translation and emphasis by the author).<sup>33</sup>*

Although the author of that publication hardly foresaw the looming global financial crisis, he nevertheless prepared the ground for the Hu/Wen leadership strategy to defend against this crisis. This shift first materialized in the enormous stimulus package of 2009, but soon was matched with industrial policies for traditional pillar industries as well as seven "newly emerging industries." These newly emerging industries (energy saving and environmental protection, new-generation information technology, biotechnology, high-end equipment manufacturing, new energy, new materials and new-energy vehicles)<sup>34</sup> mirrored the acceptance of the global environmental sustainability challenges and the need for technological progress as driver of growth. By fostering new high-tech and green industries, the Chinese government hoped to profit from the development divi-

32 China Daily, Harmonious Society, 29 September 2007; see special website for the 17th National Congress of the Communist Party <http://en.people.cn/90002/92169/92211/6274603.html> (accessed 10 January 2016); emphasis added.

33 W. Niu, Zhongguo Kechixu Fazhan Zonglun: Zhongguo Kechixu Fazhan Zonggang, di yi Juan (General Discussion of China's Sustainable Development: The Overview of China's Sustainable Development, Volume 1), Beijing 2007.

34 The US-China Business Council, China's Strategic Emerging Industries: Policy, Implementation, Challenges, and Recommendations, 2013, pp. 1–24, <https://www.uschina.org/sites/default/files/sei-report.pdf> (accessed 10 January 2016).

dend, to prevent environmental costs from lessening growth, and to secure technological progress as basis for future growth.<sup>35</sup> Following the growth accounting logic, environmental pollution and its repercussions were addressed as a factor lessening the growth potential, whereas green industry development was welcomed as a means of reducing environmental costs and improving on TFP at the same time.

The Chinese leadership was not alone with this kind of reasoning. In the course of the financial crisis, national governments turned to the development of green technology and industries and "green growth" as a potential way out of the crisis. Against the background of the Fourth Report of the Intergovernmental Panel on Climate Change (IPCC) on the Serious Threat of Climate Change and the Copenhagen Climate Summit of 2009, a crisis strategy based on "business as usual" scenarios of growth was hardly convincing. Instead, many countries saw the chance to establish competitiveness in climate-related technologies. As a result, the *New York Times* wrote in early 2010, "[the] Race Is on to Develop Green, Clean Technology."<sup>36</sup> Later, in 2011, Barack Obama famously coined this idea as "the sputnik moment of our time" and used it for explaining huge additional investment in biomedical research, information technology, and clean energy technology as a means to defend against potential competition from and a power shift to China.<sup>37</sup> The enthusiasm for green industries and "green growth" continued at least until the Rio+20 Summit of 2012, for which many global organisations prepared publications on the concept of "green growth,"<sup>38</sup> which stressed the advantages of low carbon and sustainability-oriented production and consumption. "Green growth" combined the idea of growth with environmental sustainability and opened a perspective for national growth strategies based on competitiveness in the respective industries.

After the Rio+20 Summit, the global discourse soon returned to a more comprehensive sustainability concept as mirrored in the "2030 Agenda for Sustainable Development"<sup>39</sup> not least because of widespread criticism that "green growth" ignored the social pillar of sustainability.<sup>40</sup> In addition, doubts remained as to whether "green growth" would actually support environmental sustainability. Other factors, such as advances in unconventional methods of accessing fossil fuels and falling oil prices also lessened the enthusiasm

35 A. Hu, *China: Innovative Green Development*, Heidelberg 2014.

36 K. Bennhold, *Race Is on to Develop Green, Clean Technology*, in: *New York Times*, 29 January 2010, [http://www.nytimes.com/2010/01/30/business/global/30davos.html?\\_r=1](http://www.nytimes.com/2010/01/30/business/global/30davos.html?_r=1) (accessed 11 January 2016).

37 B. Obama, *Remarks by the President in State of Union Address*, The White House, 25 January 2011, <https://www.whitehouse.gov/the-press-office/2011/01/25/remarks-president-state-union-address> (accessed 10 January 2016).

38 See OECD, *Towards Green Growth*, OECD Publishing, 2011, pp. 1–142, <http://dx.doi.org/10.1787/9789264111318-en> (accessed 10 January 2016); UN, *World Economic and Social Survey 2011: The Great Green Technological Transformation*, 2011, pp. 1–211, [http://www.un.org/en/development/desa/policy/wess/wess\\_current/2011wess.pdf](http://www.un.org/en/development/desa/policy/wess/wess_current/2011wess.pdf) (accessed 12 January 2016); UNEP, *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication – A Synthesis for Policy Makers*, 2001, pp. 1–42, [http://www.unep.org/greenconomy/Portals/88/documents/ger/GER\\_synthesis\\_en.pdf](http://www.unep.org/greenconomy/Portals/88/documents/ger/GER_synthesis_en.pdf) (accessed 12 January 2016).

39 General Assembly, *Transforming Our World: The 2030 Agenda for Sustainable Development*, Resolution Adopted by the General Assembly of the United Nations on 25 September 2015, 2015, pp. 1–35, [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E) (accessed 10 January 2016).

40 Ho and Wang, *Green Growth*.

for “green growth” strategies. While these issues also played a certain role in China, the reduced enthusiasm for the “green growth” agenda rather resulted from the change of leadership, and criticism targeted the growth logic rather than that of green industries. By 2012, the fallout of the huge stimulus package of 2009 became increasingly visible in the form of inefficiencies, excessive production capacities, debt problems, and continuously declining growth rates.<sup>41</sup> Therefore, the incoming leadership of Xi Jinping and Li Keqiang explicitly propagated to again reap the “reform dividend” as the best means to actually produce a “development dividend.”<sup>42</sup> This was not only a clear rebuke of the credo followed during the latter half of the Hu/Wen reign, but also an attack on the growth model logic.<sup>43</sup> However, as the system transition discourse had been much less explicit on previous environmental issues, many of the books and suggestions published on necessary institutional reforms in 2012 and 2013 were rather silent with regard to strategies and solutions concerning environmental sustainability.

## 5. Outlook: Towards Ecological Civilisation?

This paper has linked competing interpretations of China’s past economic success as represented by the “growth model” and the “system transition perspective” with the emergence of Chinese policies regarding sustainability and “green growth.” It has been shown that the “growth model perspective” tends to stress the different input factors that drive growth, and therefore sees environmental pollution mainly as a factor that lessens growth. The “system transition perspective” on the other hand criticizes the “growth model perspective” as ignoring the institutional fabric of the economic system. Merely stressing growth, from this perspective, has led to a state-centred development, debts and inefficiencies, which resulted in low-quality growth.

The paper has further shown the influence of the evolving global sustainability discourse on China. Over time, this influence has contributed to an increased general acknowledgement of social and environmental sustainability in China as the country has become an important player in global sustainability discourses not least, because of China’s prominent success in limiting population growth and reducing poverty on the one hand, and the more than obvious environmental degradation on the other. Even though this influence has increased over time, the general reception to these concepts has varied. Simply put, in those periods of fast system transition progress, the propensity to consider environmental issues was lower (or rather left to the market), whereas in the years prior to the latest leadership change, which were dominated by the growth logic, there was a propensity to turn sustainability issues into a (green) growth contributing factor. This

41 See Y. Deng et al., Monetary and Fiscal Stimuli, Ownership Structure and China’s Housing Market, NBER Working Paper 16871 (2011), pp. 1–62, <http://www.nber.org/papers/w16871> (accessed 10 January 2016); World Bank and Development Research Center of the State Council, China 2030.

42 Central Committee, Decision of the Central Committee.

43 Fan and Zhang, “Xin Changtai”.

distinction became all the more obvious when the incoming leadership and its intellectual supporters rather openly criticized the growth model logic pursued by the former leadership.

However, by supporting a much stronger role for markets in the economy, the current leadership faces the challenge to align the market logic with environmental and social sustainability.<sup>44</sup> China's new leadership has tried to stress quality instead of quantity of growth and development.<sup>45</sup> It is, however, not very explicit about the means to achieve this goal. In regards to environmental sustainability, the current leadership – according to the decision document of 2013 – wants to rely on market mechanisms.<sup>46</sup> This fits well into the system transition logic, as it stresses the importance of institutions (both formal and informal), although the document is silent on the issue of market failure. In addition, the second transition to sound market institutions currently faces a lot of difficulties, as can be inferred from the political and economic developments and conflict that plagued China in 2015.<sup>47</sup> Therefore, it is very possible that the leadership will eventually give in to the growth model logic again. Not because this is necessarily better for the environment and the society, but because it is better prepared to support the political status quo. It is this perspective that arguably has triggered the pessimism among those economists that hoped for substantial reforms in 2012 and 2013.

44 D. Fischer, *The Importance of Being Earnest: The Green Economy and Sustainable Development in China*, Asia Policy Brief, Bertelsmann Stiftung (2012) 2, pp. 1–8, [http://www.bertelsmann-stiftung.de/fileadmin/files/user\\_upload/Asia\\_Policy\\_Brief\\_2012\\_02.pdf](http://www.bertelsmann-stiftung.de/fileadmin/files/user_upload/Asia_Policy_Brief_2012_02.pdf) (accessed 10 January 2016).

45 A. Pandey, *Xi Jinping Embraces China's New Normal: A 6.5 Per Cent Annual Growth Target Through 2020*, in: *International Business Times*, 3 November 2015, <http://www.ibtimes.com/xi-jinping-embraces-chinas-new-normal-65-annual-growth-target-through-2020-2166586> (accessed 11 January 2016).

46 Central Committee, *Decision of the Central Committee*.

47 Fischer, *Like an Athlete on Dope*.