TITOLO DELLA TESI
CHINA'S NEW NORMAL: DEVELOPMENTAL MODEL REFORM AND IMPLICATIONS FOR FOREIGN BUSINESSES

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After the beginning of Reforms, after Mao’s death, China embraced a transition process which led to epochal institutional, legal, economic and social transformation.

The centrally-planned system was gradually dismantled, with the rise of a dynamic private economy system accompanied by the equalization of State Owned Enterprises, while the Country got out from its previous autarchic isolationism, with the opening up to foreign direct investment. All of this, was pursued gradually, with an empirical and pragmatic approach, without questioning about the leading role of the Communist Party, which essentially retained the monopoly of the political authority and the overarching responsibility to coordinate the whole reform process, which was mainly centered on economic development, with functional institutional reshaping, in line with the tradition of the so-called “confucian” or “developmental” state, that characterized the developmental experience of many countries in Eastern Asia during the XX century.

The result was a four decade of unceasing economic growth, that lead the country to the status of second world economic power in early 2010s, but at the same time to serious environmental deterioration and social imbalances, whereas industrialization was pursued with little if none attention to social and environmental negative externalities, which nevertheless are mining the country economic and political stability.

While the global economy turned to one of its worst crisis since the 1929 collapse, with extensive impact on China’s macroeconomic stability, which reflected into a slowdown in the economic growth rate, China’s government acknowledged that the double-digit economic growth obtained by the so-called “world factory” model that characterized the developmental path after the reform was not possible anymore and that the adoption of a new model urged, in order to avoid the risk of falling into a middle-income trap.

This new awareness took the name of “New Normal” (新常态) in the public narration: a new phase of reform where a qualitative approach to growth would replace the
“growth by any means” approach, with major attention on environment protection and social stability, to be achieved by the promotion of less capital-intensive and value-added industries, advanced services and a new public welfare.

Such a new awareness is shaping a big number of medium and long term plans, at any level. This is opening many opportunities for foreign companies, that have not being looking for long at China as only a sourcing and manufacturing market, but also as an increasingly important market for their products and services.

The purpose of this work is to understand the implications brought by this transition for foreign companies, in the belief that a correct and integrated understanding of the many institutional, juridical and socio-economical facets of China transition to “New Normal” is crucial for effective entry and business strategies, in a fast developing -but still to a wide extent immature- market like China.

The work adopts a multi-disciplinary approach, where juridical and institutional analysis is conducted with reference to its historical, cultural and economic background, in the assumption that transition is a highly path-dependent, rather than a theological process.

The work consists of four papers.

The first paper represents a framework of the whole study, where the nature of China’s transition to New Normal is explicated in its institutional, legal and cultural background, resorting to a wide literature review. The further three papers explore, with a sectorial cut, three of the main pillars of the New Normal: the reform of healthcare (Paper 2), the food safety reforms (Paper 3) and the environmental protection reform (Paper 4).

In Paper 2, the Reform of healthcare is analyzed, with special focus on the bilateral investment opportunities and obstacles. Healthcare reform in China on the one hand is opening the market on the side of the demand for more and better quality products and services, with the progressive extension of basic insurance coverage to the 98% of the population to be achieved by 2020. On the other hand, the reform of public hospitals and the general lifting down of direct barriers to investment increase the degree of transparence and competition on the side of the supply. Foreign investors are thus
more attracted by a general climate of opportunities. However, the reform of healthca-
re is pursued also by means of industrial policy tools that aims at building up national
champion firms, which are then pushed to “go out” and acquire market share, technolo-
gies and resources, leveraging the institutional support and the growing domestic
market as their competitive advantages. The Reform of healthcare is then promoting
the international integration between China and the world in such a key sector, with a
general growth of bilateral investment amount and double-fold effect on the sides of
technology, economy and culture. An emblematic case is represented by the Traditio-
nal Chinese Medicine sub-sector, which is actively supported by national policies in
its technological enhancement, for its integration with western medicine solutions and
scientific approaches in the domestic market, and its promotion and expansion on the
international stage.

In Paper 3, we trace the emergence of a food security law, remarking the progressive
integration of China’s food safety management system with international standards
and practices, in a process which started forty years ago and had in China’s accession
to WTO in 2001 its turning point. Since the introduction of a socialist market econo-
my, which replaced the previous soviet-style centrally planned arrangement, food sa-
fety has arisen as one of the most urgent issues, with a legal framework not capable to
keep in step with the expansion of the food industry and the emergence of many re-
ported cases of failure, amongst which the melamine crisis in 2008 is the most tragical
one. Stricter normative provisions and a more effective management system introdu-
ced by the 2009 and the 2015 safety food laws, along with increased attention by the
public opinion, have opened important opportunities for foreign business operating in
the food&beverage sector, driven by a growing demand of quality products. Neverthe-
less, market and regulatory obstacles limit foreign operators at different stages of di-
stribution. In the paper, organic food certification and e-commerce retail regulation
are taken into account as two of the most interesting cases seizing the opportunities
and the obstacles that foreign exporters and investors might find in approaching the
Chinese food&beverage market.

In Paper 4, the legal framework for environmental protection is investigated. The
“world-factory” development model, which characterized China economy since late
70s, has led to enormous environmental damage. One of the main pillars of the New Normal phase is the so-called “Green Revolution”, which is making of China one of the most active players and contributors to the XXI century environmental protection global challenge, with massive investment in green technologies and environmental restoration, supported by a deep revisitation of the related legal framework, policies and institutional patterns. The demand for high-end technologies represents thus a big opportunity for western companies, which can leverage their higher capability in the sector. Anyway, normative provisions disciplining the import of machinery and the changing administrative mechanisms regulating public-private partnerships (PPP) require foreign investors and exporters to give up any episodic approach, whereas factors such as certification and compliancy tests costs, as well as unpredictable time frame for technology transfer, need for relevant investment and a long-termed financial strategy.

All of these reforms converge to the same horizon: increase the quality of life for the widest portion of Chinese citizen, opening and stimulating at the same time a deep reshaping of the country industrial landscape, with evident business opportunities for foreign firms, that can leverage their advanced know-how and technologies as a decisive competitive advantage.

However, legal and institutional reform present also challenges and barriers, for both authorities and foreign firms. Lack of financial and technical capability, along with institutional imperfections and imbalances, often undermine the actual enforcement of regulations and policies on the local level. Fast legal development and in institutional transformation, on the other hand, where international integration often coexists with mercantilistic purposes and protectionism, represent a barrier for foreign company, which overlays the already existing cultural and linguistic obstacles. In each paper challenges and barriers are highlighted as a counterweight of the business opportunities presented.
ABSTRACT

• **Purpose**: The paper aims at giving an overarching picture of China’s institutional and economic landscape in a transitional perspective at the stage of the so-called “New Normal”, with main focus on the policies designed to drive the country to a new developmental paradigm, which is likely to greatly affect both opportunities and challenges for foreign companies wishing to enter and develop their business in the local market.

• **Design**: the study is conducted in a multi-disciplinary approach, where institutional, juridical and economical analysis are conducted with attention to the relevant historical background.

• **Findings**: the transition towards a market economy is often criticized by observers as being incomplete. Nevertheless, such a representation implies a teleological intent that could be misleading, in the case of Chinese reform process, which appears to follow a logic which cannot be simplified as a mere (albeit gradual) convergence towards western-like models and best practices, but rather as a selective and experimental process in finding a Chinese way to the transition to a market economy and to international integration. Such a premise can have great implications for foreign business development strategies in the Chinese market for the years to come.
• **Research limitation/implication:** due to its multidisciplinary approach and to the number of different facets reviewed, the study may lack of a thorough insight of specific and important issues, so that further and more in-depth research is needed.

• **Practical implications:** a correct and in-depth understanding of the specific transi-
tional trajectory of China’s institutional and economic system is the best premise for a long-termed and winning business development strategy for foreign firms in the Chinese market.

• **Keywords:** China, new normal, industrial policy, institutions, business development

Deng’s reforms and opening up in late ‘70s gave start to a four decade period in which China’s economy grew at an average 10% growth rate, along with an increasingly deeper integration within the international system. After almost forty years, China is currently keeping growing, but at a lower pace. More than a transitory situation, the slowing down of economic growth is recognized by observers and Chinese authorities themselves as a structural trend, which reveals a danger and an opportunity for the future of the Country: on the one hand, it can warn about the risk for China to fall into the so-called middle-income trap, on the other hand it is the occasion for reshaping its economical, industrial and institutional scenario.

The New Normal concept is the government’s narration of such a turning point of China’s reform history, the umbrella under which fall all the policies that the government is carrying on in the effort to change the country developmental model and avoid the middle-income trap.

Investment-intensive and double-digit growth should leave the place to a sustainable growth model, which should be more inclusive and driven by internal consumptions rather than export, with improved quality of life for larger strata of the population.

Beyond such a narration, what are the policy measures that the government is designing and implementing for supporting this process? What are the main challenges and obstacles to be faced by this new stage of reform? And which kind of institutional and economic environment such a transition will leave, once completed?

China embraced in late ‘70s a new model, which culminated into the proclamation of
a market-socialism system with Chinese characteristics in early ‘90s and led to the integration of China into the world economy with its accession to WTO in 2001. Nevertheless, this huge reform process has been carried out gradually, according to an empirical and incremental approach, and with a certain degree of innovation, to the extent that it is not possible to track a mere convergence towards a western-like market economy model. The gradualism of reform is not only in the pace of change, but also in its nature: the reform does not disrupt the institutional landscape but gives old institutions new roles and interpretations, describing a path-dependent trajectory. We are probably not in front of an incomplete transition of China to modernity/capitalism/market economy but rather we have been assisting to the emergence of an original one, as if the attempt to give shape to a modernity with Chinese characteristics. Due to the huge and growing importance of this country in the international system, it goes without saying that the understanding of the direction of the New Normal course is would be an important premise for the understanding of the next future global business environment.

1. THEORETICAL FRAMEWORK

China current policies are tracking a roadmap for leading China towards a new model which is likely to reshape its institutions, industry and society over the next decades; this would be achieved by a series of policies which aspire to further the transformation of the economy and the institutional landscape. The academic fields that can provide us with the most appropriate framework for a deep understanding of this change are the studies on transition and the studies on economic development in East Asia. Transition appears as a rather uncertain notion, as far as it used in many cases that range from former USSR transition to capitalism, to African countries transition to market economy, up to China transition from market planned to market socialist economy, without clearly stating about which kind of transition are we talking about and “where” such a transition is supposed to lead to (Papava, 2005).
China in late ‘70s embraced a large programme of reforms which started a deep transformation of its economy with the progressive dismantle of the central-planned economy and the opening-up towards the outer world. In 1978, in occasion of the third plenum of the Chinese Communist Party (CCP), Deng Xiaoping officially started his programme of reform and opening up. In 1982, during the XII Congress of the CCP, the idea of “Socialism with Chinese Characteristics” was enunciated for the first time, while on 1992, during the XIII Congress, the President Jiang Zemin introduced the notion of Socialist Market Economy\(^1\), introduced into the Constitution, providing the theoretical basis for any further development in the reform process.

The XVII Congress of Chinese Communist Party, in 2007, defined the market-socialism with Chinese Characteristics as “a multi-ownership-oriented basic market economic system, with the public ownership in the dominance”\(^2\).

According to Arrighi (2008), although most of Western scholar claimed Deng’s reforms and opening-up as a clear evidence of the dismissing of any kind of socialism, the nature of transition remains controversial for many observers who believe that China’s transition direction is not necessarily pointing towards a full implementation of a western-like capitalism: as far as basic assets like the property of lands remain controlled by the public, a market economy is not necessarily a capitalist economy and a market-socialist economy does not appear as an oxymoron. The result of transition is thus open to many options (Amin, 2005; Harvey, 2005).

The quarrel on the nature of China’s transition links to the debate about the theory of convergence, firstly introduced by the sociologist Kerr in 1960, who stated that every society, once reached the industrialization stage, would converge towards the same model, independently from their previous political and institutional system (Kerr et al., 1960). This idea has been adopted by many economists who believe that economic determinants prevail on national political systems in shaping a convergence pattern towards globalization (Duméz and Jeunemaître, 1994; Berger and Dore, 1996; Streiten, 2001). However, this point of view received many criticisms from a large


\(^{2}\) http://en.people.cn/90002/92169/92211/6275043.html
group of scholars, who argue that national state policies and institutions have a great impact on the transition trajectory towards different models (Boyer, 1996; Wade, 1990; Gourevitch 2008).

In particular, Robert Boyer’s theory of convergence can be seen as a bridge between the two poles of the debate, as he admits that technologies and market globalization push national systems and their institutions towards homologation –convergence- but such mechanisms are not perfect and it is unrealistic to identify one-fit-all best practices, which would apply for any country in the world. The most realistic outcome is a reciprocal influence by each national model, with a strong local characterisation.

If not all cases, Boyer’s theory perfectly fits the case of China, where the gradualism that characterized the whole reform and opening-up process over its four decade history, has never been given up in favour of the “shock therapy” advocated by major neo-liberal think-tanks and the so-called Washington Consensus (Stiglitz, 2002).

Focussing on East-Asia region, the debate specializes in the understanding of the dynamics that led to the development of a regional economic integration and industrialization pattern amongst the emerging economies of the area over the 20th century. The reference model here is Akamatsu’s *Flying Geese* model (1962), which proposed an explanation of the industrial development in East Asia as the result of an emerging regional labour division pattern, led by Japan. According to the Flying Geese paradigm, industrial development in Asia started with the previous commercial exchange between Europe and Asian markets. The penetration by European goods in Asia gave birth to a local demand for European goods. The Industrial Revolution initially destroyed the Asian local industry, with the delocalization of European capitals and technologies to Asia, in order to exploit lower production costs, but a new industrial base emerged throughout a process of imitation and technology absorption. A similar pattern, made by the sequence over time of cycles of importation, production and exportation led to the regional diffusion of industrialization, with technology flowing from previously industrialized areas towards new areas, with an overarching technological progression by the region as a whole, in a pattern recalling the V shaped formation that usually wild geese use to take on during flight.

Further interpretations of such a pattern essentially split into who believes that Aka-
matsu model is the ultimate demonstration that economic factors, whenever leaved free to exercise their power (Kojima, 2000), are preponderant in regional (international) convergence, finding in export and FDIs the fundamental vectors for industrial and technological diffusion in an essentially conflict-less scheme, and who consider the role played by the institutions as crucial in the emergence of an Asian regional integration (Wade, 1990; Amsden, 2001).

A wide literature testifies how a crucial role in the industrialization of Asian countries has been played by the active role of institutions, and markedly by the so-called Developmental State (Johnson, 1982; Wade, 1990; Amsden, 2001; Rodrik, 1995; Woo-Cumings, 1999).

Nonetheless, the diverse historical and geographical declinations of the developmental state make difficult to provide an analytical definition of such a concept, which can be deduced only ex post (Masina, 2002:26).

The fundamental idea of the Developmental State theory is that the stunning industrialization in East Asia can be attributed to the proactive role by the State, which leveraged the potential of international integration by means of many invasive and market-distorting actions, such as high level of national investment, subsidies, public enterprises, negative-tax credit selective allowance, allocation of payment balance surplus to the acquisition of technology. According to this view, as Rodrik (1995) puts it, the non-perfect tradability of inputs and technologies, as well as the importance of economies of scale within the modern industries, would have worked as a brake to industrialization without the massive intervention of the State.

A World Bank Report (1993) recognized the important role played by institutions in the East-Asian industrialization process, even though it underlined how the new industrializing countries of the area (Malaysia, Thailand, Indonesia) were successfully embracing a more market-friendly approach.

Japanese economist Ohno (2009), with reference to the new Asian industrializing countries substantial failure in catching-up with the previously industrialized countries of the area, argued that their market-friendly approach was the main reason for low performance: the lack of policies which would promote the industrial upgrade
transformed those countries in assembly platforms, with low and stagnant value-added, trapping their economy in a middle-income trap.

The case of China reveals participation to the Flying Geese pattern in the sectors in which unskilled labour force is a critical competitive advantage (Widodo, 2008; Ruan and Zhang, 2014). However, it is hardly deniable the great influence that the State policies, with high level on national investment, have exercised on the economic growth and industrialization performance, up to the extent that growing FDIs inflow could actually be seen as the consequence rather the cause of economic growth (Prestowitz, 2005). Openness to foreign capitals has always been selective and subordinated to the national interest: the cases of Toshiba, Honda and Toyota whose entrance to the market was conditioned by the Chinese government with strict technology transfer and equity sharing requirements, are paradigmatic (Shenkar, 2006).

The same logic applies for the growing amount of outflow FDI, where specific industrial policies are likely to affect emerging multinationals in their going-abroad decisions, promoting their international expansion through financial, fiscal, managerial measures (Wang et al., 2012; Lv and Spigarelli, 2016).

Despite all of that, China’s transition is still ongoing, with many challenges to be faced, and the middle-income trap is still there to be avoided. As the report by OECD (2013) highlights, Chinese authorities are aware that the growth model which characterized the first decades of reforms has been losing its efficacy in the latter years and needs to be changed towards a more broaden-base and demand-led model, which passes by further reform of key country sectors such as social welfare, healthcare supply, environmental protection, urbanisation and sustainable development. In particular, economic inequality is seen as one of the possible bottlenecks of the Chinese economy that would drive, if not addressed, towards the middle-income trap (Islam, 2015).
2. CHINA’S REFORMS AND INTEGRATION WITHIN THE WORLD ECONOMY

2.1 The Comprehensive Economic Reform towards a market-socialist economy: a chronology

No one would have expected China to undertake a four decade extreme dynamism period when on 1978 Deng Xiaoping started up the reform era. Still in 1994, top level economists like Krugman considered “current projections of Asian supremacy extrapolated from recent trends” as “almost as silly as 1960s-vintage forecasts of Soviet industrial supremacy” (Krugman, 1994:78). Indeed, as Zhang and Chang (2015) observe, in 1978 no written script was available for the reform programme to come and the actual mood by which the Chinese government was entering the new stage was a careful “crossing the river by feeling the stones” aptitude. The overall strategy was nevertheless clear: transform an agrarian country into an industrialized power and shift the national strategy from class struggle to economic growth (Zhang and Chang, ibidem). The reform process, that cannot be considered as concluded (and maybe should not at all, by its nature, be considered as a cycle, at least as far as the transition is not intended in a teleological sense), was characterized by two major phases (de Rambures, 2015): an initial “reform without losers” phase (1978-1989), in which the reform was carried on carefully by paying much attention to not compromise the social stability, and a second “reform with losers” phase (1989-2002), in which transition towards market economy speeded-up, with major social impact, preparing the ground to the final accession of China to WTO and official integration in the world economy.

After this important turning point, reforms kept improving and furthering on the basis of the achievements of the preceding phases. Because of its agrarian economic structure, the reform started from the countryside with the experiment in 1978 in the Province of Anhui of two areas in which farmers were allotted usage rights of the land, with reduced production quotas: it was the pilot project for the introduction of the Household Responsibility System, officially launched in 1982, with the formal di-
smantle of Maoist communes. The farmers were now allowed to place on the market the production exceeding quotas, starting the so-called “dual track” system. The result was a huge increase of productivity (Hou, 2011). At the same time, on 1979, coastal cities Shenzhen, Zhuhai, Shantou and Xiamen were designated as trial areas, prefiguring their formal recognition in 1980 as Special Economic Zones (SEZs). These areas received special permission to maintain flexible relations with foreign countries. Initially devoted as a landing platform for Hong Kong and Taiwan FDIs, the SEZs became the laboratory for the gradual opening-up of the country economy. As Jaggi et al. (1996) reports, the 1984 was a crucial turning point, with the reform shifting from the countryside to urban industrial areas, where SOEs were progressively encouraged to outsource their management and to adhere to managerial responsibility systems and the double-price system was transferred from agriculture to industry.

At the same time, the Company Law (1984) highlighted a perspective competition environment in which the same SOEs would compete within a multi-ownership environment. In this phase, the reform of SOEs was still preserving the “iron bowl” system. In nineties, however, the SOEs were strongly resized: from 1992 to 2005 SOEs employees felt from 35 to 6 million, with those who were left behind losing all the benefits related to their status, such as pension scheme, housing, a canteen, health care and schools (de Rambures, 2015). With the law “on Reform on the Economic Structure”, adopted by the Third Plenum of the 12th Central Committee of CCP, the progress made in the past six years were recognized and the concept of “a coordinated commercial economy”, a prelude to the Third Plenum of 14th Central Committee which proclaimed that the fundamental role of the reforms was establishing a “socialist market economy with Chinese characteristics”, in which the State should have the role of making fundamental resource distribution decisions on the macroeconomic level. In the end of 1993, the State Council launched the “Decision on Implementation of Management System of Taxes”, with the first implementation of a tax responsibility system and setting the revenue sharing criteria between central and local governments, perfected in 1995. In 2002, the income tax revenue sharing reform completed this public finance architecture transition process.
Contextually to the start up of the tax reform, the State Council declared the intention to separate the central and commercial bank functions. On 2004 the equitization of Commercial Banks was completed, confirming the State as the reference shareholder. On 1996, China began the current account convertibility of CNY to USD. That was an important milestone towards the integration within the world economy: while the State Council declared in early 1994 the intention to establish a platform for equal competition as a condition for the integration of China with the global economy, it was with the recognition, in 2001, of China’s WTO full membership status that the process reached its not-return point, although –as we will see afterwards- the relating internal measures were agreed to be implemented according to a gradual schedule. In 1998 the State Council formally recognized the market as the main regulatory instrument for the real estate and housing, whereas the ownership remained a prerogative of State and collective ownership (the latter applies the case of rural areas), while the usage of land, based on lease agreement, is intended to be a marketable value. In 1997, with the 15th CCP National Meeting, the non-State sector was formally recognized as a fundamental economic structure of the Socialist transformation, in 1999 this recognition was included into the Constitution, where the private sector was shifted from a “supplement” to a “major component” of the socialist market economy. It was with the 16th and 17th CCP National Meeting that the private sector was recognized as “equal partner” of the State sector. In July 1999, China implemented the first set of laws governing the issuance and trading of securities.

This formally established the juridical base of China’s Capital market which began with the 1990 establishment of the Shenzhen and Shanghai exchange, and was further enhanced with the Securities Exchange Act in November 2005. During the 10th National People’s Congress, the 4th Constitutional Amendment was adopted, in which it was explicitly stated that “the legal private property rights of citizens cannot be violated” and that “the State must respect and protect the rights of its citizens”. The formal recognition of private property was then perfected with the “Real Right Law of the People’s Republic of China” on 2007.
2.2 The integration of China within the international economy

Economic reform was accompanied and to some extent embedded into a gradual integration process with the international economics. Nowadays, China has 13 active FTA agreements, while further 16 are under negotiation.

Exhibit 1. China FTAs (2003-2016)

<table>
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<th>Country</th>
<th>Year</th>
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<tr>
<td>Australia</td>
<td>2015</td>
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<tr>
<td>South Korea</td>
<td>2015</td>
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<tr>
<td>Switzerland</td>
<td>2014</td>
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<tr>
<td>Iceland</td>
<td>2014</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>2011</td>
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<tr>
<td>Peru</td>
<td>2010</td>
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<tr>
<td>Singapore</td>
<td>2008</td>
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<tr>
<td>New Zealand</td>
<td>2008</td>
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<tr>
<td>Pakistan</td>
<td>2007</td>
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<td>Chile</td>
<td>2006</td>
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<tr>
<td>Asean</td>
<td>2005</td>
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<tr>
<td>Hong Kong</td>
<td>2003</td>
</tr>
<tr>
<td>Macau</td>
<td>2003</td>
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</table>

Source: China FTA Network, MOFCOM

The FTA (Free Trade Area) agreements furthered the integration of China within the international economy since early 2000’s, along with the 110 BITs (Bilateral Investment Treaties) that are currently in force and have being signed since earliest phases of reforms3 (UNCTAD). The BIT number is likely to change very soon as China is

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3 The first BIT was signed on 29/03/1982 with Sweden.
negotiating a new BIT with EU that will replace, as effect of the Art. 26 of the Lisbon Treaty, all the current BITs that China signed with virtually each of the EU state members in the past years (Shan, 2015). A similar negotiation is ongoing also with USA⁴.

In spite of such a variety of international agreements, the milestone of China’s integration into the world economy is the accession to WTO. China’s accession to WTO was on the basis of a Protocol signed on 10 November 2001, by which China undersigned a programme of liberalizing commitments in order to “better integrate in the world economy and offer a more predictable environment for trade and foreign investment in accordance with WTO rules”⁵. The major changes introduced by the WTO accession are as follows (IMF, 2004:11)⁶:

- **Trade in Goods**: reducing by 2004 all tariffs on imported goods down to an average of 8.9% for industrial goods and 15% for agriculture products, with an allowed range respectively of 0-47% and 0-65%. Removal of import quotas by 2005.

- **Trade in Services**: by 2003 foreign firms will be permitted to retail every kind of product; by 2004 foreign firms will have the right to engage in import and export of virtually any kind of good; by 2006 distribution will be liberalized for foreign firms. Foreign Banking sector will be enabled to operate by 2006 thoroughly with Chinese clients, Foreign Insurance providers will be allowed to entry the non-life market upon accession with a 50% equity and with a fully-owned enterprise by 2003.


⁵ [https://www.wto.org/english/news_e/pres01_e/pr252_e.htm](https://www.wto.org/english/news_e/pres01_e/pr252_e.htm)

⁶ Data have been integrated by the description available at [https://www.wto.org/english/news_e/ pres01_e/pr243_e.htm](https://www.wto.org/english/news_e/pres01_e/pr243_e.htm)
- **MFN status and National treatment:** China recognizes the Most Favoured Nation status to all the others members of WTO, whose goods will not be discriminated by any measure against local ones.

- **TRIMs:** no mandatory requirements for inflowing FDI will be admitted (e.g. technology content, etc.)

- **TRIPs:** China will enact measure in order to protect intellectual property rights

- **Agricultural subsidies:** China accepted upon accession to reduce down to 8.5 every internal subsidy to agriculture and to remove every export subsidy measure to the same sector

- **Trading Partner Safeguard:** other WTO members can impose product specific restrictions on imports if they can demonstrate that they cause threaten to their national industry. They can moreover invoke, for 15 years from accession to come, “nonmarket economy” (NME) provisions as an antidumping prevention measure.

After 15 years from China’s accession to WTO regime, it is undeniable that many progresses have been made in the application of the provisions of the accession protocol. However, there are many points that still raise frictions between China and the international community, markedly with USA and EU. According to Zeng (2013), in 2012 were 29 the disputes that have been rose by WTO members against China. Most of the cases point out the Chinese government support of domestic firms through tariffs, subsidies, grants, refunds, and tax exemptions finalized either to advantage their export performance or to restrict the domestic market to foreign operators.

On the other side, the dispute rose by China, at the same time, accounted for 11 cases and mostly reflected the concern about antidumping investigation coming from the NME status that can be invoked by WTO members. Even though since 2013 many
world countries granted China with the Market Economy status, USA and EU still rejects it, despite of China’s pressures\(^7\). The reason is that whenever a WTO member is classified to be invoked as a NME (just like China currently still can be) antidumping investigation can be carried on taking similar country prices as reference: being China production costs likely to be lower than the most of other countries, such investigations are perceived to be detrimental from the Chinese perspective.

Nonetheless, although the 15 year transition is come to its end on 11\(^{th}\) December 2016, so that China status is supposed to have switched, \textit{de jure}, to the Market Economy Status (Urdinez and Masiero, 2015)\(^8\), major WTO partners USA, EU and Japan have claimed that they will not take any initiative to change their antidumping investigation procedures as they find that the price distortion is still evident, despite of the commitments of the Protocol signed in 2001 by China\(^9\). The quarrel is thus far from being settled and is more likely to assume a political rather than a juridical nature.

3. CHINA’S INSTITUTIONAL SYSTEM AND THE REFORM

China institutional system as it appears now can be considered as a fast changing landscape in which modern (and diverse) western influences overlap an ancient tradition, which mainly refers to Confucianism and Legalism, in a context characterized by several contradictions, uncertainty and a general distance between formal provisions and actual implementation.

\(^7\) http://en.ce.cn/main/latest/201607/20/t20160720_13997298.shtml

\(^8\) Section 15(a) of China's WTO Accession Protocol

3.1 Political power structure and sources of law

China’s current constitution is dated back 1982 and was amended four times, with the last revision occurred in 2004\textsuperscript{10}. According to the Chapter 3 of the Constitution, the highest organ of the State is the National People Congress, a unicameral organ entitled as the main legislative body, composed by 3000 members, who meet once a year for a 10 days plenary session, during which various types of law are adopted (Lawrence, 2013:22), amongst which the so-called “basic laws”, statutory laws which affect the entire society (Chen, 2008:181). The National People’s Congress is assisted in its legislative function by the by the Commission for Legislative Affairs. Because of the sporadic occurrence of plenary meetings, a smaller group of 161 members that meets every two months, rounded up in the National People’s Congress Standing Committee, carries out a part of the legislative duties (Lawrence, 2013:18) and detains important prerogatives, like the power to give interpretation of the Constitution. The National People’s Congress, according to the Constitution, supervises four national-level political bodies:

- State Council: the highest organ of State administration
- State Central Military Commission: the direction of the armed forces of the Country
- The Supreme People’s Court: the highest judicial organ
- The Supreme People’s Procuratorate: prosecutor’s office

These bodies also share an important role in lawmaking. In particular, as stated by the Law on Legislation, adopted after several years of debate in 2000, the State Council detains a quasi-legislative power consisting in issuing regulations and administrative measures (PRC Constitution, Art.52 and 53), up to the extent to be pointed out by many scholars as “the \textit{de facto} most powerful law-making institution in China” (Chen, 2008:183), despite the fact that his regulations are formally set at a

\textsuperscript{10} \url{http://english.gov.cn/2005-08/05/content_20813.htm}
lower hierarchical level respect to the laws issued by the National People’s Congress. According to the Law on Legislation, moreover, the next hierarchical level in lawmaking is represented by the local regulations, which can be issued by the several sub-national administrative levels, like the 23 Provinces, the 5 Autonomous Regions and the 4 Municipalities. Finally, at the bottom of the hierarchy introduced by the Law on Legislation, there are the government rules, which are the most common type of regulation in China (Chen, 2008:190). A special mention should be dedicated to international treaties and their position within the sources of law hierarchy. Although the majority of scholars agree in positioning them directly under the Constitution (Che, 2005; Guan, 2004; Wang, 1993; Wu, 2000), on the same level as other laws issued by the corresponding legislative institutions, some scholars tend to think at them below the basic law level (Chen et al., 2000:97), due to the quasi-constitutional nature of the latter.

Despite of such a description, the actual implementation of the political process in China is different from this scheme and it is deeply characterized by the substantial and overarching overlay of the State and the Communist Party, whose leadership is not mentioned in the Chapter 3, even though is mentioned in the Preamble of the Constitution.

The juridical basis of the Communist Party leadership is instead to be found in the Party’s own constitution, whereas it is stated that “the Party commands the overall situation and coordinates the efforts of all quarters, and the Party must play the role as the core of leadership among all other organizations at corresponding levels”\textsuperscript{11}. In practice, the Party nominates the leaders of all four state-level organs and operates Party committees within each of them. The courts and prosecutors’ offices, the police, and some ministries account directly to Party Central Committee commissions and departments. Party committees are embedded in the State Council and its ministries, the courts, prosecutors’ offices, state-owned enterprises, and all other public institutions, such as education institutions and hospitals, as well as in most private compa-

\textsuperscript{11} http://news.xinhuanet.com/english/special/18cpcnc/2012-11/18/c_131982575.htm
nies and many NGOs (Lawrence, 2013). For this reason, the National People’s Congress is often argued to be no much more than a “rubber stamp” which ratifies anything the Communist Party proposes\textsuperscript{12}, despite of any attempt made over years in order to separate the Communist Party and the legislative process (Chen, 2008:192), to the extent that even the prevalence of the Constitution as the primary source of law is often argued by many scholars, who criticize it as a “mere façade with many unenforced and decorative norms” (Zhang, 2010).

3.2 Administrative levels and border management

The understanding of China’s institutional system, its structure and functioning cannot pass through the implications brought by the huge extension of its territory, with its big variety of different levels of economic and infrastructural development, the presence of 56 different ethnic groups and the historical background in which such processes and social interactions took place.

China, as its autonym suggests (中国, literally “central kingdom”), has always been existing (or, at least, perceiving itself) as the centre of a concentric system of territories, in which the concept of “centre” did not only served the scope of delimiting the inner world from the outer world, but also the dominant Han ethnicity with respect to other non-Han minorities, who lived within the boundaries of the empire and were considered at the same time culturally inferior and military powerful and dangerous. For this reason, the management of periphery has always been set as a priority by the Chinese state and has been carried out essentially by means of military control and acculturation of non-Han ethnicities (Potter, 2011).

With the emersion of a modern westphalian-like system of states in Eastern Asia, which arose as a result of the interaction with the western imperialism and passed through the progressive disintegration of the Chinese empire, the problem of periphery has been redefined under the point of view of the (re)construction of the nation state, which culminated with the foundation of the People’s Republic of China in

\textsuperscript{12} http://www.economist.com/blogs/analects/2012/03/national-peoples-congress
1949, as well as in the light of the construction of a socialist society (Arrighi, 2008). It is possible to make the distinction within two kinds of periphery: an “inner periphery”, which is formed of those non-Han majority areas (Tibet, Xinjiang and Inner Mongolia), and an “outer periphery”, made by those Han majority areas which for several reasons felt out of the Chinese world and got integrated within the international system (Hong Kong, Macao and Taiwan). Both of these kinds of peripheries, although different in their characteristics and in their management by the central power, have always been conceived as both the border of the Chinese world and a shelter for its interaction with the outside world (Potter, 2011), just like highlighted by the role that Hong Kong has been playing as a financial and export platform for the integration of the “Chinese factory” within the world economy, and by the role that western provinces are assigned to play in the “One belt, one road” strategy for the years to come.

Under the light of such a background, it is possible to better explain the current administrative subdivision of China, its institutional layout, its regional policies and the challenges that institutional system is facing in coping with the new stage of reform. China is subdivided into 33 territorial units (34 including the contented province of Taiwan): 22 Provinces (23 including Taiwan), 4 Municipalities, 5 autonomous Provinces and 2 Special Administration Regions (SARs). As the five autonomous Provinces and the 2 SARs coincide respectively with the inner and the outer periphery, they are very important in the general understanding of the China’s institutional system.

The five autonomous Provinces are Guanxi, Xinjiang, Tibet, Ningxia and Inner Mongolia, which are areas with major presence of ethnic minorities and are placed along the land border which separates China from its neighbours. As they are also amongst the poorest areas of the country, the ethnical and developmental issues are often overlaid. Since early 2000s, due to growing economic gap between the coastal and the inner areas, China launched a massive programme aimed at the economical and infrastructural development of western areas, commonly called “Western Development Programme” (西部大开发).

Priorities of the Western Development Programme (WDP) include the attraction of
inward foreign investment, the implementation of financial reforms, tax incentives, market-based and policy lending to support capital projects, securities investments, expanded insurance provisions and development of natural resources (Lai, 2002). According to the former Chinese premier Zhu Rongji, the WDP can be summarized in the following points:

(a) infrastructure investment; particularly transportation, resource development, telecommunications

(b) environmental protection and construction, emphasizing investment in forestry, land, and other unused environmental resources

(c) harmonization of local development in China’s western regions with national economic and development conditions, and

(d) expanding reliance on technology and human capital as the basic condition for economic development (Zhu, 2000).

The WDP highlights the tensions that often arise between the central government priorities and local development needs, in particular in autonomous regions. According to the Constitution, local People's Congresses are appointed to an implementation role of national provisions, with small-if any- discretionary and supervision power (Art. 115-118). This approach is strengthened by the Nationality Region Autonomy Law (NRAL), which confers the central government the power of setting the priorities, while leaving implementation up to the local governments (Art. 25).

Such an approach, while trying to ensure the harmonization of development and economic conditions to the whole country, is likely to give rise to tensions between the centre and the periphery: in fact, interpretation and application of WDP priorities reveal policy choices that tend to overlook local conditions, such as local cultural systems rooted in nomadic pastoralism and small-scale economies, which might be th-
reatened by the policy orientation of the WDP (Ni, 1998). The outer periphery situation is disciplined by the so-called “one country, two systems approach”, which applies for Hong Kong and Macao and is at the core of the proposal for the reunification with Taiwan, and finds its juridical basis in the same constitutional previsions that apply for the inner periphery. Moreover, the article 31 of the Constitution provides that special administration zones can be created in the light of specific conditions.

While there are no specific constitutional previsions for the degree of autonomy enjoyed by the SARs, they find their basis in other sources of law, like the Sino-British treaty which regulated the reunification of the former British colony Hong Kong with mainland China.

3.3 Chinese institutional reform challenge: establishing a rule of law regime with Chinese characteristics

Rule of law is a relatively new concept to China, as its introduction into the public debate can be substantially dated back to the dissolution of the Empire, in the beginning of the 20th century (Wang, 2010). A thorough and precise definition is also controversial, if considering the different historical, institutional and cultural background. The father of Chinese reform, Deng Xiaoping, with his usual pragmatism, defined it essentially in terms of supremacy of law, as the need to institutionalize the democracy into written law, “so as to make sure that institutions and laws do not change whenever the leadership changes, or whenever the leaders change their views or shift the focus of their attention”\(^\text{13}\). Such an approach was finally institutionalized in 1999 into the Constitution, with the amendment of Art. 5, par.1, which states as follows: “The People’s Republic of China practices ruling the country in accordance with the law and building a socialist country of law”.

In the latter days the rule of law is a core concept in the public debate in China, as it is seen as one of the most qualifying points of the legal reform, in response to domestic

and international challenges, set respectively by increased people expectations and by
the external pressure by globalization, as the White Paper (2008) issued by the State
Council recognizes.

The same documents also releases the guidelines for the promotion of the rule of law,
as follows:

• adhering to the leadership of the CPC, the people as the masters and ruling the coun-
try by law, ensuring that the CPC always plays the role as the core of leadership in
directing the overall situation and coordinating the efforts of all quarters in legal con-
struction, ensuring the people’s position as masters of the country according to pre-
scriptions of the Constitution and the law, and making sure that all work is carried on
according to law;

• persevering in focusing on both construction and the rule of law, continuously im-
proving the legal system in light of the objective needs of economic and social deve-
development, and making legal construction serve economic and social development as
well as the construction of a harmonious society;

• striving for rooting the legal construction in the reality of Chinese society, drawing
on valuable foreign experience for reference while basing our efforts on China’s ac-
tual conditions without copying indiscriminately other countries’ legal systems or po-
itical mechanisms;

• and persisting in basing legal construction on institutional building and enhancing
the public’s awareness of the rule of law, and unremittingly enhancing the level of le-
gal civilization of the whole society\textsuperscript{14}.

The rule of law is then framed essentially in line with the above mentioned Deng’s
definition and the subsequent Constitutional approach, as the supremacy of law, fina-
lized at building the right environment for social and economic development, taking

\textsuperscript{14} \url{http://www.china.org.cn/government/whitepaper/2008-02/29/content_11116239.htm}
though into consideration the social and institutional reality of China, whereas any contribution from foreign models should not be uncritically imitated. Such a view of the rule of law can appear as somewhat limited, if compared to the theoretical approaches and praxis in western countries, where the rule of law theoretical premises and practices have emerged as the result of the struggle for individual rights which accompanied the transition to modernity, a historical phenomenon which has no relevant comparison in the Chinese history (Blasek, 2015).

While facets like the supremacy of law seems to be assumed as a grassroots of modern China legal system, despite the fact that in classical Chinese legal thinking was dominated by the Confucian bias for moral standards and social behaviour as the supreme regulatory institutions (Mo, 2010), other important aspects of the concept of rule of law, as it unfolded in Western countries, like the separation of powers and the protection of human rights, are far from being accepted and included into the agenda of legal reform in China, at least not in the same terms and to the same extent as such ideas are defined and pursued in the West.

The separation of power, in fact, is a cornerstone in the western definition of the rule of law, tracing back to Locke and Montesquieu thought, in the belief that separation of power between a legislative, an executive and a judiciary bodies can prevent its misuse and abuse over the inalienable individual rights of the citizens. In China, the concentration of power refers to the Confucian view of an harmonic society, where a benevolent -and absolute- authority receives the mandate from the Heaven (天命) for ruling and caring the people, which owes its respect to it. Such a view has been transferred, in modern China, into the idea of “socialist harmony”, which ranks the interest of the whole society as a much higher value than individual rights, and which is claimed to be achievable only under the guidance of the Communist Party\(^\text{15}\). The establishment of a rule of law regime, even though confined to the purpose of promoting the supremacy of the law, it thus challenged by the presence of a Party whose position, by claiming a monopolistic supervising role, as Zhang (2003) puts it, is essential-

ly above the law itself.

4. CHINA’S ECONOMY

4.1 Macroeconomic facts: China towards the New Normal course or a middle-income trap?

China enjoyed substantial growth over the last 15 years, with yearly growth rate often above the 10%.

*Exhibit 2.* China GDP growth rates from 2000 to 2015

![China GDP Growth (2000-2015)](image)

*Source:* China Statistics Bureau

Since 2010, however, the growth rate is inexorably decreasing, tending to stabilizing towards lower and lower value, which are now under the 7% (Exhibit 2). Such a phenomenon is commonly called in development economy as the middle-income trap, in particular in referring to the experience by Asian NICs in failing the catch up with advanced economies (Ohno, 2009; Masina 2011). Since the starting of the Reform and
Opening-up era, China’s economy relied on a investment intensive and export-led development model (IMF, 2004).

**Exhibit 3.** Contribution to GDP growth by Exports, Investment and Consumption

![Graph showing contribution to GDP growth](image)

**Source:** China Statistics Bureau

As we can see in the Exhibit 3, the contribution by Export of goods and services to the GDP growth rate has fallen down in occasion of the global crisis, turning into a negative factor, while the Gross capital formation, aside from the anti-cyclical measures taken in 2009 and 2013, have being constantly decreasing. The Final Consumption Expenditure has been instead increasing its contribution share, overcoming the Gross Capital Formation as the main driver of growth since 2014. While the investment share is being eroded by manufacture sector overcapacity (IMF, 2012), the final consumption is still braked by several factors affecting the propensity to consume, like low disposable income by a large part of the population -which is highly influenced by factors such as inequality, high uncertainty due to insufficient social welfare support, household registration system (户籍) restrictions.

Despite of GDP growth over the last four decades, the economic development did not benefit all the population strata: according to the Investigation Center of Chinese So-
cial Sciences (2014), in 2008 and 2009, the income Gini index reached 0.49. Even though it decreased from this peak down to 0.47 on 2014, it is still above the “alert line”, which is commonly set at 0.4. The wealth Gini index is still higher, 0.73 in 2012, with the 1% of households detaining the 33% of the national wealth against the 1% detained by the bottom 25% of households. Amongst the main reasons for inequality are high levels of corruption (Wu, 2006) and the household registration system (or Hukou institution), which essentially discriminates urban and rural citizen in benefiting of social welfare resources. According to Chen et al. (2010), if Hukou restrictions were removed, internal migrants consumption would raise by 20.8%. Low disposable income negative effect on consumption is then exacerbated by the absence of a satisfying social welfare supply, with most of the unemployment risk, health and education costs directly sustained by the households, partly explaining their high propensity to save (Luo, 2004).

From the matter of fact of the economic slowdown, the Chinese government introduced the narration of the New Normal (新常态), which can be simply considered as the acknowledgment that the double-digit growth age is come to its end and that the country’s development model should shift towards a new macroeconomic stability, finding new sources of growth and preventing thus the country to fall into a middle-income trap. The first time that such a concept has been publicly mentioned, was in occasion of the RPC President Xi Jinping visit to Henan Province on May 201416. At the core of the New Normal development model there is the shift from a quantity to a quality approach to growth, which articulates itself in the following pillars17:

- **internal consumption** should substitute investment and export as the main driver for growth, with the redistribution of wealth and the extension of social welfare as supporting strategies. More reliance on internal consumption will also stabilize growth and prices, making the whole economy less dependent to international markets fluctuations.


17 [http://www.chinadaily.com.cn/opinion/2014-10/10/content_18716671.htm](http://www.chinadaily.com.cn/opinion/2014-10/10/content_18716671.htm)
boosting technology innovation and service industry is the priority for sustaining job creation and rising the internal income, throughout the production of more value added, with higher creative and leading potential, and decreasing reliance on a capital-intensive economic growth model, which needs to be more socially and environmentally sustainable.

4.2 Macro-control with Chinese characteristics: a developmental state model

The transition of China from a central planned economy to a socialist-market economy has passed through the gradual acknowledgement of the role of the market (whose recognized status has evolved from “regulatory” to “decisive” in the latter three decades) with the withdrawn of the state from an all-pervading to a macro-control role. The most important task of macro-control has been firstly described in 1995 by the Fifth Plenary Session of the 14th National Congress of the CPC as dealing with the relation amongst the reform, development and stability, with “reform as the means, development as the purpose and stability as the premises”.

The stress on the developmental purpose of macro-control function links to the traditional idea of the Developmental State in East Asia industrialization and the vast literature that documents how market-distorting state intervention played a decisive role in the industrial development of many areal economies (see Par. 1), while the focus on stability refers to the long-termed orientation that macro-control assumes in China, like the RPC President Xi Jinping pointed out at the symposium of economic experts hold on 8th July 2014, when he restated that macro-control has to “accurately hold the balance point of reform, development and stability, accurately hold the balance point of short-term target and long-term development”.

Such a nature of macro-control in the Chinese market-socialist economy has been essentially confirmed and explained in details by the Decision of the CPC Central Committee on Some Major Issues Concerning Comprehensively Deepening the Reform, approved at the Third Plenary Session of the 18th National Congress of the CPC
in 2012, which declared that “the main task of macro-control is to keep the economic aggregate in balance, promote the coordination of the major economic structure and the optimization of productivity arrangement, reduce the impact of economic periodical fluctuation, keep watch for regional and systemic risks, stabilize market expectation and realize a sustainable and healthy development of economy”.

As Zhang and Chang (2015) puts it, the transition to a market economy in China has not been simply limited to the dismantle of the central planned economy with its replacement by market mechanisms, but was targeted to the ultimate integration of the first into the macro-control system, where the state plays its function in a market-oriented environment, by intervening in strategic planning, fiscal and financial control, by means of a set of tools which includes industrial policy, trade policy, exchange rate policy, regulatory policy, capital control, financial supervision (Zhang et al., 2010).

The main leverages by which the state implements its macro-control task are the strategic planning institutions and the SOEs (state-owned enterprises), whose respective roles, in spite of the reform process that has been continuously reshaping both, appear as fundamental, rather than as a residual of an incomplete but ineluctable transition towards a pure market-economy.

The strategic planning is headed by the Central Leading Group on Financial and Economic Affairs and the State Council and finds in the National Development and Reform Commission (NDRC) the leading executor of a “three carriages” implementing structure, which includes also the Bank of China and the Ministry of Finance, whose ability to design and implement fiscal and monetary policies is then strictly subordinate to the national strategic planning, guaranteed by NDRC (Zhang and Chang, ibidem).

On the other side, even though SOEs diminished in number, they still account for up of 50% of the non-agricultural GDP, often shielded from competition, and are the tool used by the state to keep the control of key industrial sectors (such as petroleum and mining, telecommunications, utilities, transportation, etc.), acquire foreign technology and assets (by means of overseas investment), and supervise the stock market (through the domination of the listing on national stock index) (Morrison, 2014).
4.3 Policies and plans for the New Normal Phase

The current transformation of the Chinese economical, institutional and social landscape under the new normal is led by a set of policies, which set a number of mid and long termed targets, both at a general and at a sectorial level.

The main long-termed targets fall under the denomination of “two 100-year plans”, by which the CPC assumes two symbolic dates (2021 and 2049, respectively one hundred years from the foundation of the CPC and one hundred years from the birth of the RPC) as two macro-historical turning points. This two plans respectively aim at transforming China into a “moderately prosperous society”, eliminating any extreme poverty by 2021, and to transform China into a fully developed country by 2049 (CESIF, 2016:52).

On the mid-term, these general goals are addressed by general and sectorial plans. The most important and comprehensive one is the five-year plan, come to its 13th edition in 2016 (2016-2020).

The plan cover many issues, setting general targets for areas which range from the economy, infrastructure, environmental protection and social development. Its main pillars are:

1- Economy growth. Keep the yearly growth rate around the average of 6.5%
2- Economy structure. Increase the service sector’s weigh within the national economy from 50.5% to 56%
3- Energy consumption. Keep the energy consumption within the limit of the equivalent of 5 billion tons coal in 2020 (compared with 4.3 billion tons in 2015).
4- Energy efficiency. Reduce by 2020 the energy consumption and the CO2 emission per each GDP point respectively by 15% and 18% with respect to levels in 2015.
5- Air quality. Obtain at least a classification as “good” for the at least the 80% of the days in urban area (compared with the 76.7% rate in 2015).
6- Nuclear Energy. Increase the installed capacity from 28.3 GW to 58 GW by the end

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18 http://uk.reuters.com/article/uk-china-poverty-idUKKCN0S60K620151012

of the five year period.
7- Infrastructure. Extend the high-speed rail track network from 19.000 Km to 30.000 Km and increase the number of civil airport by 50 units.
8- Per capita GDP. Increase the per capita GDP by at least the 6,5% on a yearly base.
9- Employment. Creation of at least 50 million jobs in urban areas.
10- Urbanization. Increase the urban population share from 56,1% to 60%. Provide at least the 45% of population with a urban Hukou.

Beside the five year plan, many sectorial and specific plans set the guidelines for specific industries or social facets. As the New Normal Course aims at boosting the innovation of industry as one of its main cornerstone, two plans deserve our attention here. The first is the Made in China 2025 plan, launched on 2015 and pointing out that China should turn into a “manufacturing power” by 2025. By “manufacturing power” it is meant that China should improve not under the facet of the quantity of its production (which is already characterized by a substantial overcapacity), but rather under the facet of the value-added and the environmental sustainability of its industrial sector. The guidelines of this plan are:

1- Developing an innovation driven industry.
2- Focus on quality rather than quantity.
3- Focus on environmental sustainability.
4- Rationalize the national industrial layout as a whole.
5- Improve the human capital.

On this basis, the principal aim is to improve the local content of the national industry from 40% to 70% by 2025, prioritizing the following industries: IT, automatization, aerospace, navigation technologies and logistics, railways, clean energy transportations, agricultural machineries, new materials and biopharma.

Within these industrial sectors, IT is one of the most important because of its cross-cutting position within the modern industry. For this reason, the government has launched a specific plan, called Internet plus, which aims at developing and integrat-
ing technologies such as mobile devices, cloud computing, big data and the “internet of things” with the modern manufacturing, e-tailing, internet banking and services.

In order to support the development of the domestic economy and its key sectors, China considers its further integration within the world economy as an important part of its strategy. Since early 2000’s there was an increase of the number of outward foreign investment, which led China to reach in few years the eleventh place in the list of countries having stock of foreign direct investment abroad\(^\text{20}\). This is seen partly as the result of the so-called **“Go Out Policy”** (走出去战略), initiated in 1999, by which the Chinese government has actively encouraged its national enterprises to invest overseas\(^\text{21}\).

The most massive example of how China actively supports overseas investment is the **“One Belt One Road”** (一带一路) Strategy, representing the effort to build a terrestrial new silk road opening China westward and linking it to Europe by means of massive infrastructure investment in both west China and neighbors country, while on the other hand strengthening a maritime silk road, by improving its trade relations with South-east Asia and gradually expand towards South Asia and Africa, finally reconnecting the maritime and terrestrial tracks in the mediterranean sea (Zhang and Zhang, 2015).

5. CONCLUSIONS: IMPLICATIONS FOR BUSINESSES

Last four decades history of China’s transition towards a market economy, with stunning economic growth, has shown us as it has been (and being) a reform process deeply involving economical, technological, institutional and social aspects, whose trajectory nonetheless is not simply pointing towards an inexorable and substantial convergence to a western-like model but, more complexly, is designing, by means of an empirical approach, a quite original model, which tends to combine and integrate,


\[^{21}\] [http://www.gov.cn/node_11140/2006-03/15/content_227686.htm](http://www.gov.cn/node_11140/2006-03/15/content_227686.htm)
even though with several contradictions and difficulties, selected internationally widespread arrangements with traditional and Chinese specific patterns, with a certain degree of innovation and novelty, like the macro-control system above described shows us.

On the global arena, China’s claimed but not recognized market-economy status is just the political side of this issue, whereas the reluctance by major trade partner USA, EU and Japan -beyond any possible mercantilistic use of tactics- reveals how the transition towards a market economy by China is probably not only considered as “unsatisfactory” under a quantitative point of view, in its extent, but probably also in its nature itself. Such a contradiction, however, is not likely to stem China’s integration into the world economy, certified and by its active role as overseas investor and its growing international influence. This fact has been confirmed by the 19th Congress of the PCC, held in October 2017, where the claim for increased international integration is paired by the task to not giving up the research of a “Chinese way” to new developmental patterns, which embrace “economical modernization” and “ecological civilization”, keeping the track of the “Socialism with Chinese Characteristics for a New Era” and pursuing the development of “socialist democracy”22. This project looks far beyond the national boundaries, whereas it commits in “following a path of peaceful development and working to build a community with a shared future for mankind” on the one hand, while on the other hand increasing global power is pursued by “building strong armed forces and fully advancing the modernization of National Defense and the Military”.

In other words, it can be also said that China’s integration within the international economy, while is pushing the country on the track of reforms, is retroacting on the international system itself, posing several challenges and opportunities which are needed to be tackled by the rest of the world, in its turn involved in a deep reconsideration of itself, because of the global crisis which started in 2007.

22 http://news.xinhuanet.com/english/2017-10/19/c_136691759.htm
For China, the New Normal Course is the decisive challenge for its ultimate transformation into a middle-high income country. The high priority given to the development of a strong internal market and to the improving of the innovation capacity of its national manufacture landscape is an important occasion also for western companies, whose know-how, technologies and high quality product could meet the growing demand in China for both.

However, because of such an epochal transformation, entering China might mean entering a fast changing world, where a deep degree of understanding of the local institutional and cultural environment is a crucial discriminant of success. Assuming that the current transition phase will have as its final and natural outcome the convergence towards a western-like business can be highly misleading, at least in the short and midterm. Empirical and incremental approach in institutional reform, as described in the past paragraphs, implies a high level of unpredictability of the process, which can often lead to contradictory and unexpected outcomes. So, for example, economic disclosure of certain industrial sectors and markets could co-exist with increased protectionism in strategical sectors, while market-friendly reforms could go along with strengthened role of SOEs and/or increased direct and indirect government support for local enterprises.

On the institutional side, reform of political process and public administration, even though pursued by introducing many elements sourced from the international best practices, which will probably have the effect of reducing the gap between China and the rest of the world, is expected to keep moving forward with a certain degree of path dependence inertia, with relevant influence on important business-related aspects, such as judicial practices, individual right protection, state-society relations.

The growing importance by China on the international scenario, with the huge amount of foreign direct investment which every year is flowing outward, is of course likely to have big implications even for those companies who are not considering to directly entering China: on the one hand, China’s emerging multinationals are likely to be important future competitors even in the highest technology sectors, on the other hand China outward investment can be an important financial source and a privileged
channel for entering China for many European SMEs which have a competitive advan-
tage in key strategic sectors, such as green technologies, healthcare, constructions, infrastructures, automation.

REFERENCES


Masina P, (2002). Rethinking development in East Asia: from illusory miracle to economic crisis, Richmond, Routledge Curzon


THE HEALTHCARE REFORM IN CHINA: OPPORTUNITIES AND OBSTACLES FOR BILATERAL INVESTMENTS

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ABSTRACT

• **Purpose:** the purpose of this paper is to assess the overarching current opportunities and obstacles framework for EU-China bilateral investment in the healthcare sector.

• **Design:** literature, industry, trade and regulation analysis within a multidisciplinary approach

• **Findings:** the study highlights opportunities provided by China’s healthcare reform to bilateral investment and related obstacles

• **Research limitation/implication:** this research contributes to explain how China’s healthcare reform and sector policies can impact the strategic horizon of business players, both in Europe and in China. The study addresses the issue on a country (EU and China) and sector (healthcare) level, with smaller scale and sub-sector insights which are essentially finalized to integrate the analysis and express the growing complexity of the described patterns as long as the focus goes in-depth, highlighting then opportunities for further research.

• **Practical implications:** this paper is helpful for firm strategic management, policy makers and scholars in getting a thorough and general overview of the business

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23 This Paper was written during the mobility to Beijing Normal University (China, 2015-2016) within the framework of the CHETCH Programme, whose purpose was -amongst the others- contributing to the updating of the data reported in the Paper by Spigarelli and Wei (2014). The paragraph 3.1 of this paper extensively rely in its structure on the above mentioned work.
opportunities and relating obstacles brought by China’s healthcare reform process to EU-China bilateral business cooperation.

• **Keywords:** healthcare reform, China, Foreign Direct Investment, international business cooperation

1. THEORETICAL FRAMEWORK

In our analysis of bilateral investment opportunities between China and EU, we will mainly refer to the literature on FDI location choice determinants, as the most complete framework for explicate the strategy behaviour of both Chinese and European firms on the international scenario.

Such theoretical framework is highly diverse in its approaches; as international trade and foreign direct investment became a more and more relevant phenomena within the international scenario, many scholars felt the need to find a theoretical approach that would explain the motivations behind international expansion.

Some of the first contributions were brought by McDougall (1960) and Kemp (1960), explained Foreign Direct Investment as a response to the opportunity to find new markets characterized by higher profitability, thanks to high growth rates, lower labour costs and lower exchange risk.

Similar considerations were integrated by Vernon (1966) with the theory of product life cycle: mature stage of product life cycle will decrease profitability so that the only way to extend the life cycle would be the reduction of operative costs. Besides these motivations, Vernon’s model highlights how the introduction in a new market of a product/technology whose life cycle has already been exhausted in the home market will have the chance to enjoy a new life cycle.

Authors such as Hymer (1974) and Kindleberger (1969) stressed the importance of ownership advantage (like know-how, patents, technologies) in multinational firms’ decision in investing abroad, while the theory by Buckley and Casson (1976) underli-
ned the specific weight of transaction costs (like negotiation and information costs, market risks), framing up the international expansion as an internalisation of those processes (like production and sourcing) that due to high transaction costs would be more expensive if externalized.

The first holistic approach to FDI, which absorbed trade, ownership and internalisation theories, was introduced by Dunning (2002), with his OLI paradigm: There are four types of FDI derived from OLI theory of Dunning. These are market seeking FDI, resource seeking FDI, efficiency seeking FDI and strategic asset seeking FDI.

The market-seeking FDI aims at penetrating the local markets of host countries in order to exploit its potential. The resource-seeking FDI is intended to seek natural resources, physical infrastructure and the access to technologies and know-how. The efficiency-seeking FDI is motivated by creating new sources of competitiveness for firms and it goes where the costs of production are lower. Lastly, strategic asset seeking FDI aims advancing company’s global or regional strategy into foreign networks of created assets like technology, organizational abilities and markets.

This quick review of the main literature milestones on FDI motivation cannot avoid including the contribution brought by the Institutional theory which suggests that firms operate in a complex environment and so their decisions are largely determined by institutions, which set the “rules of the game” (Peng, 2009), such as regulations and incentives (Francis et al., 2009).

Under the light of such a diverse theoretical framework, it is thus worth to take into account geographical and sector facets, that is to say the provenience of firms –with their organizational, cultural, institutional background- and the destination markets – with all their structural vertical and horizontal characteristics.

Fuming et al. (2001) offered a comprehensive explanation for western FDI to China in the pharmaceutical sector: market-seeking motivations, such as huge market potential, are predominant, while resource-seeking motivation are decreasing their importance, along with labour costs incessant rising. Sector incentives and regulations offered by the Chinese government have few or none relevance, according to this study.
Under the geographical point of view, beside the above mentioned literature on FDI location choice, it is worth consider the growing *corpus* of literature specializing on the study of emerging market multinationals international expansion, as a peculiar declination of the overall FDI phenomena. In describing China Outward Foreign Direct Investments (OFDI) determinants, it is useful to make the distinction between push and pull factors, represented respectively by specific home and host country advantages/disadvantages in going abroad (Lv and Spigarelli, 2016).

Push factors can include the policies enacted by the Chinese Government aimed at supporting local firms in going outward (Peng et al., 2008) as well as the need by local firms to overcome domestic institutional and market constraints (Luo and Tung, 2007). This scheme is possible to be translated on a sub-national level, as different regional and local institutional and market environment can influence the intensity of outward internationalization strategies (Liu et al., 2014; Sun et al., 2015).

Pull factors, as they refer to host country specific advantages, besides the level of economic development, as defined by parameters like market size, strategic assets, natural resources, cheap operational costs (Buckley et al., 2007; Cheng & Ma, 2008; Kolstad & Wiig, 2012; Stoian, 2013), when related to China OFDI, should incorporate institutional and political dimension (Child & Marinova, 2014). Nevertheless, there is no unanimity on how and to what extent all of these factors impact Chinese OFDI location choice. A large body of evidences confirms that the most of Chinese outward investments are driven by market and market-seeking factors (Alon et al. 2014; Amighini et al. 2013; Buckley et al, 2007; Kolstad & Wiig, 2012; Deng, 2009). Further studies explore the asset-seeking motivation behind Chinese OFDI (Amighini et al., 2011; Spigarelli et al. 2013), where Chinese firms go abroad pushed and pulled by the need to get access to advanced technologies and human capital. Anyway, both market-seeking and asset-seeking motivation appears as related to the industrial sector of reference (Amighini et al. 2011; Lu et al., 2011).
In relation to Chinese OFDI, there are still few studies that investigate the sectorial dimension, with industry-level of analysis (Wang et al., 2012; Lv and Spigarelli, 2016). Specific industrial policies can significantly promote the outward expansion of local firms, especially in “sensitive” and “strategic” industries (Lv and Spigarelli, 2016). Moreover, technology-intensive sectors can be more likely to be driven by asset-seeking purposes (Aminghini et al., 2011; Spigarelli et al., 2013). For this reason, sector specificity should be considered as related to both pull and push factors (Spigarelli, 2016).

2. BACKGROUND CONTEXT AND ITS OPPORTUNITIES: A POLICY PERSPECTIVE

Inflow and outflow FDI in relation to the Chinese healthcare sector cannot be analyzed without an insight of the socio-economic background context and of the policies that have been implementing by the government in the latter years. Four decades of unceasing economic growth and of one-child policy –recently substituted by the two children policy– has dramatically impacted the socio-economic scenery of China, with a fast emerging middle-class and a progressively ageing population. Such a context is having a great influence in determining the side of demand for healthcare products and service, contributing to pushing the authorities in designing and implementing a deep reform of healthcare, which has been undergoing for several years, reshaping the sector landscape and affecting opening important room for business international cooperation (Spigarelli, 2016).

1.2 The healthcare reform and policies

The reform took place on 2009 and has been implemented according to three phases.

- **Phase I (2009-2011)** focused in expanding the basic medical insurance coverage up to reach the 90% of the population, revise the reimbursable essential drugs list (EDL) and start the pilot reform of public hospitals.
• The *Phase II* (2012-2016) strengthened the targets of the first phase, by aiming to expand the basic medical insurance coverage up to the 98% of the population, further enlarge the EDL, strengthen the Informative System infrastructure, strengthen both fixed (hospitals, beds) and human (specialized resources and their efficiency) assets of national healthcare.

• The *phase III* (2017-2020) will aim to stabilizing the achievements of latter phases and to reduce regional and generational differences, with more attention on the demand coming from ageing population.24

The Healthcare reform can be seen as a part of the New Normal Course, the new country strategy introduced by the Chinese government aiming at transforming the economical, industrial and social landscape from the previous high growth rate, export-oriented development pattern towards a more sustainable model, characterized by higher value-added production, market-friendly environment, internal consumption as engine of growth, in line with the vision for a socialist inspired harmonious society, as described by the 12th five year plan (2011-2015) (Tung, 2011; Deloitte, 2011; WHO, 2012; Wong et al., 2012), which paid great attention to the Healthcare sector enhancement, with many objectives ranging from industry reinforcement and concentration, improved managerial and professional standards, enhancement of international ventures and export as an leverage of competitiveness (CCCMPHIE, 2012).

This orientation has been stressed by the new sector plan, named “Essential points of the national plan for the health system and healthcare (2015-2020)”, which aims to extending to the whole population the basic healthcare service coverage and tackle the emerging issues that will be likely to put under pressure the healthcare system in the future, such as the ageing population, the rapid growing urbanization, by means of the enhancement of the informative system and managerial capability (Lv and Spigarelli, 2016).

The same plan pays a great attention to the peculiar role played by Traditional Chinese Medicine (TCM) within the Healthcare sector landscape: even though Chinese people are more and more oriented to address their health problems using Western medicine, the majority of them are still using TCM as their first choice (WHO, 2011, p.69). TCM is considered as an important part of Chinese culture and tradition, to be protected and even actively promoted abroad. The above mentioned sector five year plan stresses the importance to improve the legislation, information and standards, increase research innovation in the TCM, in the light of strengthening the integration with western medicine within the national structures and expanding the export propensity (Spigarelli and Wei, 2014).

The 13th five year plan (2016-2020), is substantially on the same wave of the previous one. The 60th Chapter of the plan is the one who illustrates the main targets: deepen the reform, with particular attention to the rural and urban disparity. Under this facet, it is very important to note that the five year plan aims at enhancing the reform of the household registration system (hukou), in order to extend the urban welfare system to all residents.25

2.2 The role of EU-China relations in healthcare reform

The opening towards foreign markets is likely to be an important piece of the Country’s policy as testified by the “negative list approach” to inflow foreign investment, with further opening trials for key sectors within the pilot free trade zones, as we will see in the next chapters. Such an approach should be contextualized within the overall strategy on the side of trade international relations, with China proactively seeking to enhance the cooperation on bilateral investment with US and Europe (Shan & Wang, 2014).

In particular, negotiations for a bilateral investment treaty (BIT) with the EU have been running since 2012 and once closed and ratified, the same BIT will replace the current bilateral agreement in force between China and each EU member states (Shan

& Wang, 2014) which, before the ratification of the China-EU BIT, will continue to be the only referring legal frameworks for bilateral investments.

As for the healthcare sector, the most interesting framework for cooperation can be found on the intergovernmental level, both on the national one, like in the case of the 3 year action plan signed between China and Italy Healthcare ministers on January 2016\(^{26}\) or in the case of the hospital alliance signed by China and 5 EU member states on June 2016\(^{27}\), both on the decentralized one, like in the case of the agreement signed between the Jiangsu Province and the Capital Region of Denmark on 2015\(^{28}\).

These intergovernmental programmes act as a framework for the involvement of several stakeholders, on the institutional, academic and on the business level and represent a very important occasion to facilitate the establishing and development of bilateral relations within the sector (Cesif, 2016, p. 198).

### 3. INDUSTRY PATTERNS IN THE HEALTHCARE SECTOR IN CHINA

Healthcare reform, while affecting consumptions, habits, and behaviours of Chinese people are having a significant impact on the industry. Industry growth and development can be act as a push and pull factor for investment, whereas its growth in value and profitability attracts new players and its technological development increases the demand for technology.

#### 3.1 Pharmaceutical industry trends and patterns

The pharmaceutical industry, despite its size, appears as still a highly fragmented industry (Yuanjia, Ung et al., 2007), characterized by strong rivalry. The three major

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\(^{26}\) [The](http://www.nhfpc.gov.cn/zhuzhan/gjjl/201601/7fb9d89cc276437388da234b4c96ecfd.shtml)

\(^{27}\) [http://en.nhfpc.gov.cn/2016-06/21/c_70029.htm](http://en.nhfpc.gov.cn/2016-06/21/c_70029.htm)

\(^{28}\) [https://www.regionh.dk/english/businesses/china/healthcare%20cooperation/Pages/Hospital-cooperation.aspx](https://www.regionh.dk/english/businesses/china/healthcare%20cooperation/Pages/Hospital-cooperation.aspx)
firms share only the 8.4% of the market\textsuperscript{29}, slightly less than the 10% registered on 2010 (Datamonitor, 2010, p. 2). Amongst the top 20 firms in sales, 11 are Chinese firms, 9 are foreign.

Distribution is consequently highly fragmented to same extent and it is often criticized for its inefficiency and lack of transparency. China’s top three distributors - Sino-pharm Group, Shanghai Pharmaceutical, and Guangdong Jiuzhoutong Pharmaceutical - detained in total less than 20% of overall market share in 2009. Anyway, on the side of distribution, the trend is of a slight progressive concentration, whereas the same three leaders were accounting for 22%, one year later, in 2010 (PWC, 2012). The overall distribution structure continues, however, to show a high fragmentation, if compared to other advanced markets: in the US, for instance, the top three pharmaceutical commerce companies controlled the 96% market share (Deloitte, 2011).

Aside from this general picture, in recent years, Chinese pharmaceutical market has increased its scale. In 2011, the gross output of Chinese pharmaceutical market was $24,061 billion: $32,5 billion more, if compared to 2005 performance. The industrial added value was $15,280 billion on 2013, with an annual growth rate of 15.35%, which is larger than the GDP and national industrial average growth rate. Total profit increased as well, at a rate higher than that of production value\textsuperscript{30}. Furthermore, from 2000 to 2010, the number of pharmaceutical enterprises above the “designated size”\textsuperscript{31} increased from 3,301 to 7,039 (then slightly decreasing again, for the reasons we are going to discuss further). From 2000 to 2013, revenues from principal business increased from $21.43 billion to $331.08 billion (see Exhibit 1).

\textsuperscript{29} http://www.en-cphi.cn/news/show-30008.html


\textsuperscript{31} As stated by the National Bureau of Statistics of China, the relevant size is reached when revenue from principal business is more than 5 million yuan. 5 million yuan were equal to around $0.8051 million in 2015.
Exhibit 1. Manufacture firms in the pharmaceutical industry, above designated size

<table>
<thead>
<tr>
<th>Year</th>
<th>n. of enterprises</th>
<th>Gross industrial output value ($100 millions)</th>
<th>Total assets ($100 millions)</th>
<th>Revenue from principal business ($100 millions)</th>
<th>Total profits ($100 millions)</th>
<th>Value Added Tax Payable ($100 millions)</th>
<th>Annual average n. of employees (10,000 persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>3301</td>
<td>234,57</td>
<td>368,56</td>
<td>214,30</td>
<td>17,99</td>
<td>15,20</td>
<td>90,48</td>
</tr>
<tr>
<td>2001</td>
<td>3488</td>
<td>268,79</td>
<td>432,13</td>
<td>253,45</td>
<td>22,13</td>
<td>17,47</td>
<td>89,39</td>
</tr>
<tr>
<td>2002</td>
<td>3681</td>
<td>313,25</td>
<td>486,46</td>
<td>300,28</td>
<td>26,52</td>
<td>19,77</td>
<td>89,39</td>
</tr>
<tr>
<td>2003</td>
<td>4063</td>
<td>380,62</td>
<td>568,49</td>
<td>362,27</td>
<td>34,20</td>
<td>22,18</td>
<td>125,80</td>
</tr>
<tr>
<td>2004</td>
<td>4397</td>
<td>n/a</td>
<td>631,93</td>
<td>423,17</td>
<td>36,82</td>
<td>24,43</td>
<td>129,19</td>
</tr>
<tr>
<td>2005</td>
<td>4971</td>
<td>565,62</td>
<td>738,53</td>
<td>534,94</td>
<td>45,01</td>
<td>29,18</td>
<td>134,56</td>
</tr>
<tr>
<td>2006</td>
<td>5368</td>
<td>686,32</td>
<td>839,13</td>
<td>645,28</td>
<td>50,94</td>
<td>33,44</td>
<td>142,02</td>
</tr>
<tr>
<td>2007</td>
<td>5748</td>
<td>912,03</td>
<td>991,55</td>
<td>855,45</td>
<td>83,33</td>
<td>44,12</td>
<td>149,71</td>
</tr>
<tr>
<td>2008</td>
<td>6524</td>
<td>1236,06</td>
<td>1237,16</td>
<td>1161,86</td>
<td>124,46</td>
<td>62,51</td>
<td>164,33</td>
</tr>
<tr>
<td>2009</td>
<td>6807</td>
<td>1506,98</td>
<td>1490,70</td>
<td>1450,12</td>
<td>158,62</td>
<td>72,37</td>
<td>174,94</td>
</tr>
<tr>
<td>2010</td>
<td>7039</td>
<td>1890,72</td>
<td>1790,09</td>
<td>1838,55</td>
<td>214,35</td>
<td>88,10</td>
<td>188,77</td>
</tr>
<tr>
<td>2011</td>
<td>5926</td>
<td>2406,11</td>
<td>2128,89</td>
<td>2332,42</td>
<td>258,62</td>
<td>107,93</td>
<td>194,69</td>
</tr>
<tr>
<td>2012</td>
<td>6387</td>
<td>n/a</td>
<td>2539,20</td>
<td>2791,88</td>
<td>300,47</td>
<td>132,46</td>
<td>n/a</td>
</tr>
<tr>
<td>2013</td>
<td>6525</td>
<td>n/a</td>
<td>2991,92</td>
<td>3316,08</td>
<td>333,60</td>
<td>152,80</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Source:** China Statistical Yearbook, several years.

The number of firms has more than doubled from 2000 to 2010, increasing also in their scale. After 2010, however, their number has slightly decreased, while scale continued to grow. State-owned enterprises (SOEs), foreign enterprises and private enterprises are all competing in the market (see Exhibit 2). Even though the number of private firms has more than doubled in only six years, their average size is averagely much lower than the State-owned enterprises (SOEs) and foreign firms. SOEs, on their side, underwent a period of reorganization: their number decreased from 1,500 to 419 in 2011, but their average scale and gross domestic output grew.
Exhibit 2. The number and average size of pharmaceutical firms

<table>
<thead>
<tr>
<th>Year</th>
<th>Foreign Pharmaceutical Enterprises</th>
<th>State-owned Pharmaceutical Enterprises</th>
<th>Private Pharmaceutical Enterprises</th>
<th>Other Kind of Enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n. units</td>
<td>Gross industrial output value ($100 mil)</td>
<td>Average Size ($100 mil)</td>
<td>n. units</td>
</tr>
<tr>
<td>2000</td>
<td>542</td>
<td>53,20</td>
<td>0,10</td>
<td>1496</td>
</tr>
<tr>
<td>2001</td>
<td>568</td>
<td>59,66</td>
<td>0,11</td>
<td>1341</td>
</tr>
<tr>
<td>2002</td>
<td>604</td>
<td>69,15</td>
<td>0,11</td>
<td>1180</td>
</tr>
<tr>
<td>2003</td>
<td>701</td>
<td>83,76</td>
<td>0,12</td>
<td>1001</td>
</tr>
<tr>
<td>2004</td>
<td>743</td>
<td>109,45</td>
<td>0,15</td>
<td>939</td>
</tr>
<tr>
<td>2005</td>
<td>890</td>
<td>139,46</td>
<td>0,16</td>
<td>676</td>
</tr>
<tr>
<td>2006</td>
<td>955</td>
<td>173,81</td>
<td>0,18</td>
<td>590</td>
</tr>
<tr>
<td>2007</td>
<td>1035</td>
<td>233,39</td>
<td>0,23</td>
<td>559</td>
</tr>
<tr>
<td>2008</td>
<td>1144</td>
<td>334,79</td>
<td>0,29</td>
<td>527</td>
</tr>
<tr>
<td>2009</td>
<td>1144</td>
<td>420,98</td>
<td>0,37</td>
<td>508</td>
</tr>
<tr>
<td>2010</td>
<td>1140</td>
<td>510,63</td>
<td>0,45</td>
<td>507</td>
</tr>
<tr>
<td>2011</td>
<td>951</td>
<td>596,20</td>
<td>0,63</td>
<td>419</td>
</tr>
</tbody>
</table>

Source: China Statistical Yearbook, several years.

Market growth, technical progress, increasing investment and industrial reorganization led some large-scale enterprises to establish themselves as leaders in basic drugs supply. On 2005, there was only one pharmaceutical firm with more than 10 billion yuan ($1.22 billion) sales turnover, while in 2010 they were ten. Similarly, pharmaceutical enterprises with more than 5 billion yuan ($0.61 billion) sales were 17 in 2010, while in 2005 they were three32.

Enterprises listed in Exhibit 3 were the top 20 firms in Chinese pharmacy market in 2014. Guangzhou Pharmaceutical Corporation was the first as for prime operating revenue, while China Resources Pharmaceutical Group had most gross assets and raked first on total profit.

**Exhibit 3. Financial and economic data: ranking the top 20 firms in 2014**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Prime operating revenue</th>
<th>Gross assets</th>
<th>Total profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guangzhou Pharmaceutical Corporation</td>
<td>China Resources Pharmaceutical Group</td>
<td>China Resources Pharmaceutical Group</td>
</tr>
<tr>
<td>2</td>
<td>Xiuzheng Pharmaceutical Group</td>
<td>China National Pharmaceutical Group</td>
<td>Yangzte River Pharmaceutical Group</td>
</tr>
<tr>
<td>3</td>
<td>Yangzte River Pharmaceutical Group</td>
<td>Guangzhou Pharmaceutical Corporation</td>
<td>Yunnan Baiyao Group Company Limited</td>
</tr>
<tr>
<td>4</td>
<td>Weigao Group</td>
<td>Tianjin Pharmaceutical Holdings Ltd</td>
<td>Weigao Group</td>
</tr>
<tr>
<td>5</td>
<td>Shijiazhuang Pharmaceutical Group</td>
<td>North China Pharmaceutical Group Corporation</td>
<td>Xiuzheng Pharmaceutical Group</td>
</tr>
<tr>
<td>6</td>
<td>North China Pharmaceutical Group Corporation</td>
<td>Weigao Group</td>
<td>Qilu Pharmaceutical Co. Ltd</td>
</tr>
<tr>
<td>7</td>
<td>China National Pharmaceutical Group Corporation</td>
<td>Sichuan Kelun Pharmaceutical Limited</td>
<td>China National Pharmaceutical Group Corporation</td>
</tr>
<tr>
<td>8</td>
<td>China Resources Pharmaceutical Group Limited</td>
<td>Shijiazhuang Pharmaceutical Group</td>
<td>Pfizer Incorporation</td>
</tr>
<tr>
<td>9</td>
<td>Harbin Pharmaceutical Group</td>
<td>Yangzte River Pharmaceutical Group Ltd</td>
<td>Shanghai Fosun Pharmaceutical Group</td>
</tr>
<tr>
<td>10</td>
<td>Tianjin Pharmaceutical Holdings Ltd</td>
<td>Qilu Pharmaceutical Co. Ltd</td>
<td>Guangxi Wuzhou Zhongheng Group</td>
</tr>
<tr>
<td>11</td>
<td>Bayer Group</td>
<td>Harbin Pharmaceutical Group</td>
<td>Zhengda Tianqing Group</td>
</tr>
<tr>
<td>13</td>
<td>Pfizer Incorporation</td>
<td>Tasly Group</td>
<td>Jiangsu Hengui Pharmaceutical Ltd</td>
</tr>
<tr>
<td>14</td>
<td>Jiangxi Jiminkexin Group</td>
<td>Xiuzheng Pharmaceutical Group</td>
<td>Guangzhou Pharmaceutical Corporation</td>
</tr>
<tr>
<td>15</td>
<td>China Yuanda Group</td>
<td>Yunnan Baiyao Group Company Limited</td>
<td>Beijing Sihuan Pharmaceutical Co. Ltd</td>
</tr>
<tr>
<td>16</td>
<td>Shandong Buchang Pharmaceutical Co., Ltd</td>
<td>Jilin Aodong medicine Group</td>
<td>Jiangsu Haosen Pharmaceutical Group</td>
</tr>
<tr>
<td>17</td>
<td>Hangzhou Huadong Medicine Group Co.</td>
<td>Xinhecheng Group</td>
<td>Tasly Group</td>
</tr>
<tr>
<td>18</td>
<td>Shanghai Fosun Pharmaceutical Group</td>
<td>Chongqing Huapont Pharm. Co.</td>
<td>China Yuanda Group</td>
</tr>
</tbody>
</table>
The number and the size of foreign enterprises in China in the pharmaceutical industry has been increasing since 2000. From the Exhibit 4, it is possible to see that the number of enterprises in 2000 was 542, while in 2010 peaked at 1,140 units. After 2010, however their number slightly decreased, settling at 951 in 2013. Notwithstanding, the total assets they hold continuously grew, from $6.9 billion to $71.58 in 2013. In 2013, revenues from principal business reached 73.29 billion (about fifteen times of that in 2000), while total profit was about 8 billion in 2013 (almost 20 times of that in 2000).

Exhibit 4. Main Indicators of foreign firms in the Chinese pharmaceutical market

<table>
<thead>
<tr>
<th>Year</th>
<th>n. unit</th>
<th>Gross industrial output value ($100 million)</th>
<th>Total assets ($100 million)</th>
<th>Revenue from principal business ($100 million)</th>
<th>Total profits ($100 million)</th>
<th>Value added tax payable ($100 million)</th>
<th>Annual average number of employees (10,000 persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>542</td>
<td>53,16</td>
<td>69,77</td>
<td>48,17</td>
<td>4,33</td>
<td>3,97</td>
<td>n/a</td>
</tr>
<tr>
<td>2001</td>
<td>568</td>
<td>59,69</td>
<td>76,43</td>
<td>55,65</td>
<td>5,11</td>
<td>4,55</td>
<td>n/a</td>
</tr>
<tr>
<td>2002</td>
<td>604</td>
<td>69,12</td>
<td>85,77</td>
<td>65,21</td>
<td>6,08</td>
<td>5,36</td>
<td>n/a</td>
</tr>
<tr>
<td>2003</td>
<td>701</td>
<td>83,76</td>
<td>101,75</td>
<td>75,95</td>
<td>9,12</td>
<td>5,77</td>
<td>16,92</td>
</tr>
<tr>
<td>2004</td>
<td>743</td>
<td>n/a</td>
<td>109,39</td>
<td>83,89</td>
<td>9,99</td>
<td>6,00</td>
<td>16,63</td>
</tr>
<tr>
<td>2005</td>
<td>890</td>
<td>139,45</td>
<td>158,13</td>
<td>128,69</td>
<td>13,74</td>
<td>9,02</td>
<td>22,62</td>
</tr>
<tr>
<td>2006</td>
<td>955</td>
<td>173,81</td>
<td>184,96</td>
<td>162,25</td>
<td>16,11</td>
<td>10,41</td>
<td>25,29</td>
</tr>
<tr>
<td>2007</td>
<td>1035</td>
<td>233,40</td>
<td>238,59</td>
<td>216,28</td>
<td>27,05</td>
<td>14,03</td>
<td>27,4</td>
</tr>
<tr>
<td>2008</td>
<td>1144</td>
<td>334,87</td>
<td>330,33</td>
<td>313,28</td>
<td>40,82</td>
<td>20,40</td>
<td>31,77</td>
</tr>
<tr>
<td>2009</td>
<td>1144</td>
<td>421,03</td>
<td>409,16</td>
<td>406,27</td>
<td>52,66</td>
<td>24,20</td>
<td>34,77</td>
</tr>
<tr>
<td>2010</td>
<td>1140</td>
<td>510,68</td>
<td>483,36</td>
<td>488,08</td>
<td>66,22</td>
<td>29,13</td>
<td>38,21</td>
</tr>
<tr>
<td>2011</td>
<td>951</td>
<td>596,13</td>
<td>554,00</td>
<td>571,86</td>
<td>66,43</td>
<td>35,06</td>
<td>39,35</td>
</tr>
<tr>
<td>2012</td>
<td>946</td>
<td>n/a</td>
<td>646,82</td>
<td>653,08</td>
<td>75,87</td>
<td>37,66</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: Ministry of Industry and Information Technology of the People’s Republic of China, The rank of manufacture firms in the pharmaceutical industry in 2014

http://xfps.miit.gov.cn/n11293472/n11295176/n11298973/14522230.html
http://www.miit.gov.cn/n1146285/n1146352/n3054355/n3057601/n3057603/c3524486/content.html
In 2010, foreign firms produced 27.01% of gross industrial output value, 26.55% of prime operating revenue, 30.89% of total profit, and 27.1% of total assets (Exhibit 5). That was the turnaround of a trend showing a growing importance by foreign operators within the national landscape since earliest 2000s: starting from 2011, the position of foreign companies appeared to be reshaped towards a smaller scale. On 2011 their gross output value turned back to 2005 levels (24.78%), total asset share decreased to 23.93%, prime operating revenue to 22.10%, and total profit to 24.21% (Exhibit 5). Anyhow, despite the persisting importance of foreign companies, their share in the market has never seemed to be overtaking national firms that are keeping their role and competitive position.

Competition among foreign firms and Chinese companies is going to be strongly affected by the dynamics in proprietary technology. At the moment, foreign firms hold the monopoly in many proprietary technologies. This situation is going to change rapidly. In fact, more than ten of the world’s best-selling drugs lost patent protection in 2011. Generic drugs are the most of China’s pharmaceutical industry, and are likely to remain so for a long time (Deloitte, 2011). In this regard, foreign enterprises are expected to play a more and more important role in Chinese non-Generic drugs market, while Chinese state-owned firms and private companies could have a relevant market share in the generic drug market.

Exhibit 5. The role of foreign enterprises in the pharmaceutical market (% of total market)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Enterprises</th>
<th>Gross industrial output value</th>
<th>Total assets</th>
<th>Prime operating revenue</th>
<th>Total profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>16.42</td>
<td>22.66</td>
<td>18.93</td>
<td>22.48</td>
<td>24.06</td>
</tr>
<tr>
<td>2001</td>
<td>16.28</td>
<td>22.21</td>
<td>17.69</td>
<td>21.96</td>
<td>23.08</td>
</tr>
</tbody>
</table>
3.2 Medical devices industry trends and patterns

As for the Medical Devices industry, it appears as more concentrated than the pharmaceutical industry. The share held by the top four players was set to be around the 47.8% on 2011 (IBISWorld, 2011).

The gross output of the industry was 212 billion CNY\textsuperscript{34}, approximately 32 billion US on 2014. The average profit margin within this industry is rather high; on 2011 it was about 12.1%, after having risen from 9% on 2006, and 11% on 2007, despite of increasing competition (as we will see in a while) and structural trends of raw materials and wages appreciation. As this industry cost structure heavily relies on raw material and wages (accounting for a 71.9% of the total), the rising of profit margin can be attributed to increased technology content and value added (IBISWorld, 2011), whose role within the industry competitive landscape can be hardly overestimated.

\textsuperscript{34} Chinese Medical Equipment Industry Development Blue Book 2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Class I</th>
<th>Class II</th>
<th>Class III</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>3245</td>
<td>7233</td>
<td>2123</td>
<td>12601</td>
</tr>
<tr>
<td>2008</td>
<td>3368</td>
<td>7533</td>
<td>2240</td>
<td>13141</td>
</tr>
<tr>
<td>2009</td>
<td>3696</td>
<td>7869</td>
<td>2311</td>
<td>13876</td>
</tr>
<tr>
<td>2010</td>
<td>4015</td>
<td>7906</td>
<td>2416</td>
<td>14337</td>
</tr>
<tr>
<td>2011</td>
<td>4051</td>
<td>8174</td>
<td>2405</td>
<td>14630</td>
</tr>
<tr>
<td>2012</td>
<td>4095</td>
<td>8247</td>
<td>2586</td>
<td>14928</td>
</tr>
<tr>
<td>2013</td>
<td>4218</td>
<td>8804</td>
<td>2676</td>
<td>15698</td>
</tr>
</tbody>
</table>

Source: Chinese Medical Equipment Industry Development Blue Book 2014

As shown by the Exhibit 6, in 2013 the total number of manufacturers was 15,698, with an average 3.7% increase on yearly base over the preceding 7 year period. This phenomena interested in particular the Class I manufactures, with a 29% increase over the whole period and Class III, with a 26% increase. Despite of a relatively high concentration, then, with the top 4 players controlling the market, there is a growing number of firms entering the market, increasing the competition and extending the long tail of the industry concentration pattern.

Exhibit 7. Main Medical Device Manufacturers in China (2011)

<table>
<thead>
<tr>
<th>Player</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE Healthcare</td>
<td>19%</td>
</tr>
<tr>
<td>Siemens Ltd Medical Solutions</td>
<td>14%</td>
</tr>
<tr>
<td>Shenzhen Mindray Bio-Medical Electronics Co., Ltd</td>
<td>11.3%</td>
</tr>
<tr>
<td>Shinva Medical Instrument Co., Ltd</td>
<td>3.5%</td>
</tr>
<tr>
<td>Beijing Wandong Medical Equipment Co., Ltd</td>
<td>2.0%</td>
</tr>
<tr>
<td>Others</td>
<td>50.2%</td>
</tr>
</tbody>
</table>

Source: IBISWorld 2011
Exhibit 7 highlights how foreign players have been positioning in a leading position within the market, with the top three enterprises having, on a whole, a major participation by foreign capitals\(^{35}\). More recent estimates reckon the revenue coming from foreign enterprises to be up to 74% (Cesif, 2016).

### 4. BILATERAL TRADE AND INVESTMENT IN THE HEALTHCARE SECTOR

The analysis of trade and investment data in the healthcare sector can give us the idea of the current relevance of business interaction, both quantitatively and qualitatively, by assessing the potential and the grade of integration within the two systems. The analyzed data will offer a sub-sector and geographical insight.

#### 4.1 EU-China Trade data analysis

In assessing the state of the art of bilateral business relations between China and EU-27, it can be useful observing through the analysis of trade data in which areas the national productions integrate each other and how the commercial bilateral pattern has been evolving over time.

**Exhibit 8. EU-China Import and Export performance in the healthcare sector 2009-2013**

<table>
<thead>
<tr>
<th>COMMODITIES</th>
<th>2009-2013 Variation</th>
<th>Total trade (100 million US$)</th>
<th>Export-on-total trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EXPORT</td>
<td>IMPORT</td>
<td>2009</td>
</tr>
<tr>
<td>Total</td>
<td>81%</td>
<td>176%</td>
<td>129.71</td>
</tr>
<tr>
<td>TCM</td>
<td>125%</td>
<td>174%</td>
<td>2.79</td>
</tr>
<tr>
<td>Health products</td>
<td>511%</td>
<td>25%</td>
<td>0.33</td>
</tr>
</tbody>
</table>

\(^{35}\) GE includes 4 joint-ventures (JV) and 1 whole fully owned enterprise (WFOE), Siemens Medical Solutions started as a JV on 1992, then becoming a WFOE on 2005, Shenzhen Mindray is a Sino-US Joint-Venture (IBISWorld 2011).
Total trade between China and EU-27 has more than doubled, from 130 billion of USD on 2009 to 296 billion on 2013. The main contribution to this increase has been brought by Chinese side import performance, whose value has increased by 176%. The result is that the total trade surplus is now slightly negative, with import from EU-27 major than export towards the same area, while on 2009 the balance was null (export on total trade share has moved from 50%, to 40%).

Generally speaking, China, in relation to Europe, is a net exporter for upstream process commodities, traditionally characterized by low to medium value-added output, such as plant extracts and raw materials for TCM, accessories and rehabilitation materials and APIs.

On the contrary, China is a net importer for downstream high value-added process commodities, like formulations, both TCM and pharmaceutical. This pattern is evident in the medical devices subsector: medical diagnostic equipments account for the 72.5% of country’s total import of medical devices on 2015, with a yearly growth rate of 6.6%\(^\text{36}\). The mid-high-end medical devices segment accounts for the 40% of the

market and it is dominated by foreign brands: diagnostic, ultrasound, magnetic resonance, electrocardiogram and high-grade recording equipment markets are dominated by foreign brands, whose share ranges from 80 to 90%\(^{37}\).

There are some areas in which the trade surplus has been inverted: on 2009 China was net exporter for bio-chemical drugs and dental materials, while on 2013 has turned to net importer, probably because of increasing demand for high quality products and inputs. On the contrary, on 2013 China turned its position from net importer to net export for TCM health products, as a result of increased export performance for this category (+511% from 2009 to 2013). The promotion of TCM export is one of healthcare sector key targets for the Chinese government, as we have seen in the previous paragraph and testified by government’s activism in bilateral cooperation agenda\(^{38}\). This expanding pattern has been continuing; according to CCCMHPIE China overall export value of TCM has increased by 14.5% on 2014, pulled by an extremely positive performance by Plant Extracts category, grown by 25.5\(^{39}\).

4.2 EU-China bilateral investment data analysis

As for OFDIs, based on Rhodium group database, Exhibit 9 shows investments from 2000-2011. China invested in Eu-27 for more than 300 million USD in pharmaceutical, 93 million USD in healthcare and medical devices and 34 millions in biotechnology sectors, for a total amount of 2% of total national outflow FDI.


<table>
<thead>
<tr>
<th>Sectors</th>
<th>Value (USD million)</th>
<th>Number of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greenfield</td>
<td>M&amp;A</td>
</tr>
</tbody>
</table>


\(^{38}\) A good example of Chinese Government proactive promotion of TCM export is the joint communique, released on 20 Jan 2016 by Healthcare Ministers of China and Czech Republic in supporting TCM in the Czech Republic. http://en.nhfpc.gov.cn/2016-01/20/c_69186.htm

Great part of investments was related to M&A, which have been concentrated in the Netherlands, Finland, France and Sweden. On the other hand, Denmark, United Kingdom, Hungary, Romania, Czech Republic, Germany, Italy and Spain only received greenfield investments. The most relevant M&A in Europe are reported in Exhibit 10.

### Exhibit 10. Main China-EU OFDI M&A operations, 2007-2014

<table>
<thead>
<tr>
<th>Investor</th>
<th>Target company</th>
<th>Amount (million €)</th>
<th>Year</th>
<th>Sector</th>
<th>Country</th>
<th>Core business</th>
</tr>
</thead>
<tbody>
<tr>
<td>SinoChen</td>
<td>DSM</td>
<td>45 (for 50% stock)</td>
<td>2011</td>
<td>Pharmaceutical</td>
<td>Netherlands</td>
<td>EJV on anti-infective production and distribution</td>
</tr>
<tr>
<td>Lepu Medical Tech</td>
<td>Comed B.V.</td>
<td>5 (for 70% stock)</td>
<td>2012</td>
<td>Medical Devices</td>
<td>Netherlands</td>
<td>Production of stents and catheters for cardiovascular applications</td>
</tr>
<tr>
<td>Shanghai Dongbao biopharmaeutical</td>
<td>Ferring Pharmaceutical (around 10)</td>
<td>2007</td>
<td>Sweden</td>
<td>Manufacturing facilities acquisition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inner Mongolia Free Han</td>
<td>Echosens</td>
<td>20</td>
<td>2011</td>
<td>Medical Devices</td>
<td>France</td>
<td>Technology and manufacturing facilities acquisition</td>
</tr>
<tr>
<td>Naton Medical Group</td>
<td>Inion Oy</td>
<td>26</td>
<td>2010</td>
<td>Medical Devices</td>
<td>Finland</td>
<td>Manufacturing facilities for surgery implants acquisition</td>
</tr>
<tr>
<td>Sirton Pharmaceuticals Spa</td>
<td>S3Bio Inc.</td>
<td>N.A.</td>
<td>2014</td>
<td>Pharmaceutical</td>
<td>Italy</td>
<td>Injectable pharmaceutical products</td>
</tr>
</tbody>
</table>

Source: Hanemann & Rosen (2012)

Greenfield projects were bigger in number but less important in terms of value. Amongst the most important projects in the period, the following are worth mentioning. Shanghai ChemPartner, one of the world’s biggest pre-clinical research centres invested in Denmark on 2009, for its European Headquarter. Tianshi, a TCM produ-
cer, and Midea, in the equipment sector, invested in UK in 2002 and 2005 respectively, for starting their distribution in the country. Jiangsu Hengrui invested in Sweden for R&D subsidiary, in 2009.

Shifting our focus on inward investment to China, we can assess that European investment accounted for around 21% of the total on 2014 (see Exhibit 2015).

**Exhibit 11.** China Inflowing Direct Investment on 2014

The European member states from which the biggest share of investment originated were Germany (40%), France and Netherlands (around 15% each).

As for the Healthcare sector, according to Li et al. (2017), in 2016 the only pharmaceutical sector accounted for $2.1 billion of FDI.

**Source:** The World Investment Report, Unctad (2015)
Exhibit 12. China FDI in pharmaceutical industry. Geographical distribution of total assets in 2013

Source: Li, Angelino, Yin, Spigarelli (2017)

Under the facet of geographical distribution, Exhibit 12 shows that the eastern area of the country tend to account for the most of FDI in pharmaceutical sector. Anyhow, the FDI tends to concentrate in districts which locate also in inner areas. The pharmaceutical FDI localization is positively influenced by factors such as GDP level and policy incentives, while are negatively affected by others, such as competition and environmental regulations and control (Li et al., ibidem).

5. OBSTACLES AFFECTING BILATERAL INVESTMENT IN HEALTHCARE SECTOR

In assessing the obstacles affecting the bilateral investments between China and Europe, it is useful make a distinction between Europe-to-China and China-to-Europe barriers, due to the different nature of barriers affecting bilateral business opportuni-
ties in either direction. Aside from such barriers, there is a further category of cross-cutting barriers that are likely to affect international strategies with no regard to their geographical provenience.

5.1 Europe-to-China barriers

The most obvious barrier affecting the strategy of European firms willing to invest in China’s healthcare sector is the protectionism intent that may lay behind some of China’s government provisions. Generally speaking, inflowing foreign investment discipline in China is divided into four categories by the Catalogue of Industries for Guiding Foreign Investments, a document issued by China’s National Development and Reform Commission (NDRC) and the Ministry of Commerce (MOFCOM) which rules foreign investment in Chinese industries. The categories are: permitted category (the standard, with no particular restrictive or favourable treatment), encouraged category (investment in activities in this area is subject to less strict administrative requirements and may enjoy certain tax and other benefits), restricted category (investments in activities in this field are subject to higher levels of scrutiny and stricter administrative requirements, and may be denied at the discretion of the approval authorities), prohibited category (foreign investment are not permitted).

Even though a general trend can be observed into the progressive liberalization of foreign investment, evidently marked by the reduction in number of prohibited and restricted initiatives, many activities are likely to change their status, according to government’s strategies for that sector. The overall trend towards liberalization has been contrasting with a protectionist mood by the government in recent years (Cesif, 2016). Within the healthcare sector, there are many important changes: one is the transition of medical institutions from “permitted” to “restricted” (it is now mandatory the presence of a Chinese partner), while investing in old age homes is now “encouraged”.

There are any way partial exceptions to these restrictions: in the Shanghai FTZ, from 2013, it was possible to establish a 100% foreign owned medical institution.

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Moreover, the MOFCOM and NHFPC joint “Circular on Launching the Pilot Scheme of the Establishing Wholly Foreign-Owned Medical Institutions (Guo Wei Yi Han [2014] No. 24)” extended the same possibility to Beijing, Shanghai and Tianjin municipalities as well as in Fujian, Guangdong, Hunan and Jiangsu provinces, witnessing a general openness by the Chinese Government to gradually open this sector to foreign investment, in order to meet the growing national demand for high quality services.

Aside from direct barriers, a vast number of regulatory barriers can have great impact on European firms’ strategy towards China: the most relevant of them is represented by the long and costly process for the approval of medicines and medical devices. The Chinese standards for the approval and registration of medicines and medical devices are not consistent with the European ones, so that the European firms willing to import their products need to undergo a process that is relatively costly in time and financial resources.

The document issued by the China State Council on 9 August 2015, titled “Opinions on the Reform of the Review & Approval System for Drugs and Medical Devices (n. 44)”, is the ultimate set of provisions about the approval of medicines and devices in China.

The registration process for both medicines and medical devices is governed by the China Drug and Food Administration (CDFA)\(^{41}\).

The first step for both the registration processes is to appoint an agent, which should be a Chinese legal entity, no matter if it is a branch company either a third party.

Then the new product should undergo a series of clinical trials. Three clinical trials for medicines are conducted by the Center for Drug Evaluation (CDE) over a growing number of individuals. A fourth post-marketing study is conducted over 2000 individuals (EU SME Centre Guidelines, 2014).

The process for Medical Devices is similar. Medical devices are divided into 3 classes, according to a risk management rational. The main criteria for classification include the purpose of use, structural features, whether the device comes into direct

\(^{41}\) For further and thorough information about the registration process for drug, refer to: http://eng.sfda.gov.cn/WS03/CL0768/61645.html while for information related to registration process for medical devices, refer to: http://eng.sfda.gov.cn/WS03/CL0768/144282.html
contact with the body, methods and status of use. While Class I medical devices are exempted for clinical trial, only need to undergo a filing procedure with a municipal regulator, most Class II and Class III must undergo a series of clinical trials. There is a list of exemptions that excludes some of Class II and Class III items from clinical trials\(^4\).

The registration process appears to be an indirect barrier for total needed time and costs, which have been reckoned by the China-Italy Chamber of Commerce to be respectively up to 5 years (3 years on 2013) and 930 thousands euro for new drug registrations and 3 years and 180 thousands euro for medical device registrations\(^4\).

Such a barrier has been also criticized, especially for what that concerns the time (which have been extended from 3 years to 5 years), because it is likely to delay the introduction of important products into the market. For this reason, the CFDA has released on the 26\(^{th}\) February 2016 a document titled “Opinions on Solving the Registration of Medicines Overstock to Conduct Priority Review Approval”, which establishes a fast track for urgent medicines, like those for treatment of critical diseases like AIDS, tuberculosis, viral hepatitis, cancer, etc (Cesif 2016, p. 205).

### 5.2 China-to-Europe barriers

While no protectionist measure prevents Chinese firms in entering the European market, regulatory barriers are also relevant in the case of Chinese foreign direct investment to Europe in the healthcare sector. The most evident example is the regulations disciplining the commercialization of TCM in Europe. As we have seen before, Chinese government is investing hard in the development of this subsector, which is considered as a cultural heritage to be preserved and combined with Western medicine solutions. Amongst the development measures implemented, we have seen that the promotion beyond the national borders plays a key role. However, despite the fact that the government has been striving since the 12\(^{th}\) five year plan to improving industrial

\(^4\)\(^{4}\): [http://www.eusmecentre.org.cn/content/webinar-opportunities-eu-smes-chinas-healthcare-sector](http://www.eusmecentre.org.cn/content/webinar-opportunities-eu-smes-chinas-healthcare-sector)
standards, Chinese firms of this subsector are still facing problems when acting abroad.

The main challenges are the compliancy to technical standards and registration (Jie, 2012). TCM include proprietary Chinese medicines, raw material and ingredients, as well as herbal extracts. The registration process is disciplined by the Directive 2004/24/EU, which introduces a simplified registration process for herbal medicines\(^{44}\). Moreover, the provision allowed a 7 years transitional period to register traditional herbal medicinal products that were on the market at the date of the entry to force of the provision. Anyway, very few TCM products were registered at the end of that period (Wu et al., 2015).

The directive has been criticized by Chinese players, above all for it overall cost, that amounts up to 462 thousand dollars, according to Huang Jianyin, deputy secretary-general of the World Federation of Chinese Medicine Societies\(^{45}\).

### 5.3 Cross-cutting barriers

Apart from geographical specific barriers, it is possible to identify a range of barriers that can transversally affect EU-China business relations. The very first and obvious of them is the language. Although at least 300 million Chinese are studying English language\(^{46}\), the average proficiency is still relatively low, as China still ranks 47\(^{th}\) over 70 countries, according to the EF index\(^{47}\). The same can be said about European studying Chinese: according to Confucius institute, on 2011 there were at least 40 million people worldwide studying Chinese, with an increase of 25\% over the past decade\(^{48}\). Anyway, especially for what that concerns high-tech sector like Healthcare, in which a mastery of technical language is necessary, few people are likely to master both the languages at a satisfying level. Beside the language, a very important indirect


\(^{47}\) [http://www.ef-italia.it/epi/regions/asia/china/](http://www.ef-italia.it/epi/regions/asia/china/)

\(^{48}\) [http://english.cntv.cn/20110128/114731.shtml](http://english.cntv.cn/20110128/114731.shtml)
barrier can be represented by culture and in particular, by business culture: this is particularly true in the case of M&As, just like a vast literature testifies.

A study by KPMG International dated back 1999 shows that 83% of M&A fail to create the intended value (KPMG, 1999). Mergers and acquisitions are intended to create value, by mean of the matching of companies’ respective competitive advantages, technologies and by eliminating competition. Nevertheless, many companies underestimate the problems that can come from an acquisition process, resulting in a “2+2=3” effect, whereas the initial plan was rather aimed to obtain a “2+2=5” effect (Appelbaum et al, 2000; Cartwright and Cooper, 1993; Hovers, 1971).

In any acquisition there is the risk of a cultural conflict between the two existing organizations, as largely discussed in the literature, whereas two different corporate cultures are induced to fuse (Stahl and Voigt, 2008). In the case of cross-border mergers and acquisitions, these problems can be even doubled, because of the double-layered nature of the process of acculturation (Barkema et al, 1996) as beyond different corporate culture, many generic barriers can intervene within the process, such as cultural barriers, language problems, different legal systems (Shimizu et al, 2004).

Corporate business culture, which is not necessarily related to the geographical provenience, can be stressed by deeply rooted cultural differences, like the one we can find whenever comparing the Chinese and European culture.

Chinese culture is famous for being an example of relationship-focused culture and it is collocates itself as opposite to deal-focused cultures, like the one which characterizes, amongst others, Northern European countries. Chinese culture, in fact, in business affairs uses to place the trust the individual, rather than in the Institution/Corporation which he/her represents. The consequence is that the interpersonal relations network (the so-called guanxi, 关系) is highly important in the conduct of business.

Just as an example, reciprocal knowledge can be a high time consuming process and often go through a long series of formal and informal occasions that may appear to some of the Western cultures something like a “waste of time”. In any case, some characters of this kind of culture are likely to not appear as exotic to some of the European national cultures, like the South and Eastern European ones, which are often
categorized as a half-way class between the two extremes, under the label of *moderately deal focused* cultures (Gesteland, 1999).

**CONCLUSIONS**

Healthcare sector, as we have seen, is a very interesting sector for bilateral investments. Pulled by drivers like economic growth, which is at the base of the rise of a new middle class, with ever growing demand for high quality healthcare products and services, demographic transition and the overarching reform carried out by the Chinese government since 2009, the industry is growing at a high pace both in quantity, both in value-added. This is a great perspective for European market-seeking investments, which wish to have access to the potentially widest market in the world. At the same time, industrial upgrade by local firms is pushing strategic asset-seeking investment from China, with a growing number of Chinese firms investing abroad and, of course, in Europe. Europe is also interesting for market-seeking investment for Chinese firms, especially in the TCM sub-sector. On the backdrop, the Chinese government action, with the overarching reform of healthcare and the support provided to local firms in international expansion, is crucial, so that it is really hard to underestimate the relevance of the institutional facet in analyzing either directions of China FDI in the sector.

Generally speaking, we can state that the main opportunity for bilateral investment and business cooperation within the healthcare sector is represented by a substantial high complementarity between the two systems, with Europe embodying the pole for technology and high-value added processes and China representing the pole for market growth potential, financial resources and low to medium value added processes. Nevertheless, obstacles are also remarkable. First of all, on the general level, the absence of a bilateral investment treaty still fragments the interlocution between China and EU as whole. Of course, such a situation is likely to advantage China’s huge specific weight in negotiating with each single EU member state. It is our opinion that such a situation could represent a brake for a smooth and balanced development of
reciprocally benefiting cooperation, which would probably enjoy from a more equilibrated balance of power, as well as from having in the EU a single partner.

Secondly, the lack of harmonization of technical standards, which sometimes can be interpreted also as a result of a vaguely protectionist aptitude by each side, is at the base of many of the regulatory barriers, which have a clearly reckonable –often insurmountable- financial weight for business players who want to expand in either directions. It would be desirable that governments and institution pay the due effort to overcome as much as possible any asymmetry in technical standards, for smoother, faster and less expensive market entry procedures for both side players.

Regulatory barriers can be deepened by cultural differences: linguistic and cultural features are likely to impact business development strategies and exacerbate institutional gaps. Here, the support by institution is crucial in preparing the ground for business players, by providing them with needed information and relation network.

Business players, for their part, should not underestimate the importance of barriers and concentrate as much as possible their efforts in gathering all the information about the market, relating regulations and cultural habits. Choosing the right (local) partner can be a good solution for filling the cultural gap (even though to evaluate who is a good partner can be difficult for the same reason a partner is needed) as well as the financial gap: Chinese OFDI growing trend is in fact a great opportunity for those firms who aim to enter the Chinese market but do not have the right financial scale, as they represent a big financial source as well as a privileged way to access the market. The above mentioned complementarity between China and EU is the perfect outline for such a model.

This study provided a general overview of opportunities and obstacles to bilateral investment, further research can address more focused analysis.

On the geographical level, even though our analysis has provided some insights of the sub-national level, more research can be done in exploring the peculiarities of national level (as for EU) and provincial level (as for China). Some of the opportunities/obstacle pattern can dramatically vary if the same analysis is approached on a stricter scale. The same can be said as for the industrial sub-sectors. Healthcare includes a very wide range of products and services and, even though this study has tried to give an
insight of each of them, more focused research can be done on sub-sectors and commodity/service categories.

Finally, one of the natural prosecutions of such a path of research is the empirical verification of the premises at the firm-level, from which to shed light on the effective impact by the economical, industrial, political and institutional levels on business organization and strategy management as well as on the daily business practice.

REFERENCES


CESIF (2016). La Cina nel 2016. Fondazione Italia Cina


WHO (2011), Country Health Information Profile, online at http://www.wpro.wo.int/countries/chn/5CHNpro2011_finaldraft.pdf


ABSTRACT

• **Purpose:** The paper aims at giving an overview about the reform of food safety law in China, and the related opportunities and barriers for foreign companies wishing to enter the market, with a closer eye towards European small and medium enterprises.

• **Design:** the study is conducted in a multi-disciplinary approach, where institutional, juridical and economical analysis are conducted with reference to the relevant historical background.

• **Findings:** the evolution of the Chinese Food Safety Law is a process which traces the emergence of a stronger attention by both institutions and the public towards food safety and food quality issues in China. This might represent a market opportunity for good quality food European producers and exporters, but at the same time the growing and fast changing regulatory environment can act as an entry barrier. The study particularly focus on Organic certification and e-commerce regulation, as two of the most relevant examples of the coexistence of big opportunities and barriers, that foreign food companies might face when deciding to operate and distribute their products in China.
Research limitation/implication: due to its multidisciplinary approach and limited space, the study may lack of a thorough insight of specific and technical issues, as well as of a product category focussed analysis, so that further and more in-depth research is needed.

Practical implications: the study implies that a correct and in-depth understanding of the juridical, institutional and market environment of China’s food sector is a crucial premise for enterprises wishing to draft their entry plan to China and the subsequent business development strategy.

Keywords: China, food safety law, institutions, food market, business development

The New Normal, as described in Paper 1, has brought a major attention to the qualitative rather than the quantitative facets of growth in China. As a consequence, a higher quality of life for the whole population is set as one the foundations of the new strategy for Chinese socio-economic development.

Improved purchasing power by an increasingly larger share of the population, along with the scandals on food safety, has increased both the demand for a better food safety environment, both closer attention by authorities towards food safety regulations and standards. In the meanwhile, China’s integration within the international economy, which entered in an irreversible stage with its accession to WTO in 2001, requires the Country’s authorities to improve their food safety management and technical capabilities. This has been leading China to extensively develop its food safety regulations, with important implications for foreign business, which are more and more attracted by the increasing demand for quality food from Chinese customers, but at the same time facing growing challenges in relation with a fast changing regulatory environment, where the efforts by lawmakers are ambiguously on the one hand addressed to improving the transparency in fulfillment with WTO commitments, on the other hand tempted by a protectionist opportunism.

In the first paragraph, the emergence of a China food safety law will be reviewed, in its historical dynamics. The second paragraph will focus on the country's food safety
management systems and its evolutions throughout the many stages of reform. The third paragraph will analyse the issue of national technical standards and their harmonization with the international standards, with close focus on WTO TBT and TBS agreements. The fourth paragraph, will take into account the opportunities and the barriers that foreign operators meet when approaching the Chinese market, with a more in-depth insight on Organic food certification and E-commerce regulations.

1. THE EMERGENCE OF A CHINA’S FOOD SAFETY LAW

1.1 Earliest stage (1949-1995)

After the foundation of the PRC in 1949 China adopted a centrally planned economy on the base of the USSR experience. The food industry thus, just like others, was directly managed by the state through direct control over the SOEs. Since the poor conditions of the most of population, the government priority on food industry was to ensure the food supply under a quantitative perspective, rather than others. At that time, the main problem on food safety arose on the consumption side, so that it can be said that food safety was mainly conceptualized as an hygiene issue (Zhou and Jin, 2013).

The first comprehensive regulation was issued in 1965 by the government was the Administrative Regulations of Food Hygiene Management for Trial Implementation, which was the result of the joint effort by the Ministry of Health, Ministry of Commerce, Ministry of Light Industry, Central Administration for the Industry and Commerce and the All China Federation of Supply and Marketing Cooperatives (ACF-SMC).

The Cultural Revolution (1966-1976) paralyzed the country and any law-making activity in a decade of chaos and disorders, which came to an end only with the death of Mao Ze Dong, in 1976, and the beginning of a new age of Reforms under the leadership of Deng Xiaoping, which led the country’s economy to the gradual dismantle of the centrally planned economy and its replacement by a socialist market economy.

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http://www.lawxp.com/statute/s1062814.html
The Reform started in the countryside, with the progressive liberalization of agricultural and commercial activities, with a deep impact on the food sector. Such a great change was firstly addressed with the promulgation of the *Administrative Regulations of the People’s Republic of China on Food Hygiene* in 1979 by the Health Ministry, which revised the aforementioned regulations\(^50\).

With the liberalization of the economic activity across the food supply chain, food safety accident began to occur also in different stages of the supply chain, with frequent episodes of food contaminations and shortcomings on the enforcement side (Wu and Zhu, 2014).

For this reason, in 1982, the Standing Committee of the National People’s Congress enacted the *Food Hygiene Law of the People’s Republic of China (For Trial Implementation)*, which entered into force in 1983\(^51\).

### 1.2 The Food Hygiene law (1995-2009)

In 1992 China officially embraced a market economy model, after more than 10 years of reform. During such a period and almost a decade since the trial implementation of the Food Hygiene Law, the food industry underwent a dramatical quantitative and structural change, with the number of food enterprises increased from 51,734 to 75,362 units and the number of employees more than doubled, from 2.132 to 4.846 millions, while the economic growth and liberalization let a relevant product differentiation within the industry (Wu and Zhu, Ibidem).

Because of the new situation\(^52\), in 1995 a new law on Food Hygiene has been adopted in occasion of the 16th Meeting of the Standing Committee of the Eighth National People’s Congress\(^53\). As per its Art.1, the law had as it main purpose to “ensure food hygiene and prevent […] food contamination and harmful substances from causing

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\(^{50}\) [http://www.lawxp.com/Statute/s978710.html](http://www.lawxp.com/Statute/s978710.html)


\(^{52}\) The analysis here developed will extensively rely on the reconstruction offered by Snyder (2015)

\(^{53}\) 1995 Food Hygiene Law
injury to human health in order to safeguard the health of the people and improve their physical fitness”.

The law defined Food as “any finished product or raw material intended for people to eat or drink, as well as any product that has traditionally served as both food and medicine, with the exception of products used solely for medical purposes”\textsuperscript{54}. Nonetheless, as its name itself underlines, the law was still mainly focussed on the hygiene issue of food safety, with not thorough concern to the upstream processes of the value chain, such as the agricultural production stage, like highlighted by the Art. 4: “all foods and food additives, […] containers, packaging, utensils and equipment used for food, detergents and disinfectants […] the premises, facilities and environment associated with food production or marketing”.

Supervision and enforcement was demanded to health authorities at the county level or above\textsuperscript{55} even though their supervision function was mainly concerned about the ex-post inspections\textsuperscript{56}, while the Art. 37 entitled the same authorities of the faculty (which is other than an obligation) to carry out precautionary and provisional measures towards a food producer of trader “responsible for food poisoning accident which has already occurred or for which there is evidence of the possibility of occurring”. Art. 39 provided the sanctions for anyone responsible of food poisoning, which could be investigated for criminal responsibility and could have his hygiene license revoked, with fines ranging from one to five times the gains illegally obtained\textsuperscript{57}.

The \textit{Provisions on the Administration of Food Recall} gave the AQSIQ (see the next paragraph) the responsibility of organizing and coordinating the recall nationwide\textsuperscript{58}. The Provisions established three types of recall, according to the seriousness of the

\textsuperscript{54} 1995 Food Hygiene Law, Art. 54

\textsuperscript{55} \textit{Ibidem}, Art. 34

\textsuperscript{56} \textit{Ibidem}, Art. 33

\textsuperscript{57} \textit{Ibidem}, Art. 43

\textsuperscript{58} \textit{Provisions on the Administration of Food Recall}, Art. 5
hazard: in the first two cases it was a “voluntary” recall, the third case was a “compulsory” recall, ordered by AQSIQ. Different recall urgency levels were related to different legal implications for the producer, whereas the voluntary recall did not exempt him from its liabilities but could result in a mitigation of punishment.

1.3 The Food Safety Law (2009-2015)

A new draft for a national law that would replace the Food Hygiene Law was already on the table of the NPC in 2003 (Bath and Ip, 2011).

In August 2007 the State Council issued a White Paper on Food Safety. However it was probably after the crisis of melamine in 2008 that both public and authorities paid more attention to food safety, so that a new law was ready in early 2009, when the Standing Committee of NPC adopted the first comprehensive Food Safety Law of the history of the PRC, which abrogated the former Food Hygiene Law. The first, major, innovation brought by the new law was that the whole value chain, in all its segments and related risks, was included into the scope of the law, except for the quality and safety management of edible agricultural products, which were explicitly left to the jurisdiction of the Law on the Quality and Safety of Agricultural Products.

From a normative point of view, the Food Safety law left unaltered the previous general fragmentation of institutional prerogatives: taking the above mentioned case of agricultural edible products as an instance, the new law disciplined the formulation of standards, while the Law on the Quality and Safety of Agricultural Products disciplined the quality safety and management, transferring this distinction on the institutional ground, where responsibility were divided between the Ministry of Health (mainly

59 Ibidem, Art. 232

60 Ibidem, Art. 34


62 http://news.bbc.co.uk/2/hi/7720404.stm

63 Food Safety Law, Art. 104
http://www.lawxp.com/Statute/s1060912.html

64 Ibidem, Art. 5
responsible for the Food Safety Law) and the Ministry of Agriculture (mainly responsible for the Law on Quality and Safety of Agricultural Products), with high risk of overlaps and confusion. A similar pattern of fragmentation was also visible in other important issues.

In order to strengthen the guarantee of food quality, the new Food Safety Law introduced a licensing system for food production and distribution.

While the Hygiene Food Law had an ex-post approach to the risk management, as explicated by the “Recall” provisions previously discussed, the new Food Safety Law introduced a national surveillance system for monitoring food safety, with the Ministry of Health, at all its levels, responsible for the formulation, the implementation and the coordination of a national surveillance plan.

A new framework for food safety standards had been established, with all producers and distributors required to comply to food safety standards and banned to produce food with non-food raw material, as well as any substance possibly hazardous to human health, included recycled food.

Moreover, the 2009 Food Safety Law established for the first time an overarching system of traceability, with producers required to check the license of all suppliers and keep the records for all incoming raw materials. Similar requirements applied for distributors. Differently from the previous law, the 2009 law addressed, in the Chapter VI, the import and export of food. Imported food, food additives and food-related products were required to comply with national food safety standards. Where this was not possible, the importer must submit an application to the Ministry of Health, which

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65 This important implication of the 2009 Food Safety Law will be further discussed in the next Chapter of this work.

66 Food Safety Law (2009), Art. 29 (1)

67 Ibidem, Art. 11

68 Ibidem, Art. 27

69 Ibidem, Art. 28

70 Ibidem, Art. 36

71 Ibidem, Art. 36 and 37
was responsible to decide on it and then develop a new standard\textsuperscript{72}. Exported food was to be supervised and inspected randomly\textsuperscript{73}. Finally, the 2009 Food Safety Law innovate the rules on legal liability. Food producers or distributors engaging in their activities without a license risked the confiscation of earnings and the material used, with pecuniary fines depending on the total volume of the illicit activity\textsuperscript{74}. Under certain circumstances, like the usage of hazardous or illicit raw materials, or the usage of potentially hazardous raw material above the safety standards, the business license might be revoked\textsuperscript{75}. The article 89 extends this provisions to importers and exporters who do not comply with the Food Safety Law requirements.

\textbf{1.4 The New Food Safety Law (2015)}

In October 2015 a new Food Safety Law, issued by the Standing Committee of the NPC, replaced the 2009 law\textsuperscript{76}. Many new features have been introduced by the new regulation, which is an attempt to fine-tune the shortcomings of the 2009 Food Safety Law after more than 5 years of implementation.

Aside from the institutional reorganization, whereas the China Food and Drug Administration (CFDA) was established, centralising many functions that were spread across many institutional bodies\textsuperscript{77}, one of the main innovations is the improved Food Safety Risk Assessment framework, with new requirements applicable to food-related products, which are subject to biological, chemical and physical risk evaluation by the authorities, for whom subsists the obligation to proceed in this sense\textsuperscript{78}.

\textsuperscript{72} Ibidem, Art. 63

\textsuperscript{73} Ibidem, Art. 68 (1)

\textsuperscript{74} Ibidem, Art. 82

\textsuperscript{75} Ibidem, Art. 85 (1) (2)

\textsuperscript{76} http://www.lawxp.com/Statute/s1759970.html

\textsuperscript{77} Management issues will be analysed in the next Chapter

\textsuperscript{78} 2015 Food Safety Law, Art. 17, 18, 21, 22
Traceability, introduced by the 2009 Law is improved by establishing a liability insurance system for producers and distributors. Particularly important, as a consequence of the boom of e-commerce sales, the 2015 Law introduces the requirement for third-party e-commerce platforms to examine the license of their distributors. All the Genetically Modified Foods will have to be labeled by producers and resellers according to the current legal framework, which is represented by the *Administrative Regulations of Agricultural Genetically Modified Organisms Safety*, issued in 2005 by the Agriculture Ministry and the State Council. With respect to the 2009 Law, the 2015 Law introduces higher safety requirements for “special foods”, a category which includes health foods, special medical purposes food and infant formula.

2. CHINA’S FOOD SAFETY REGULATORY BODIES AND POLICIES

The emergence of a food safety law has determined and was accompanied by the evolution of the institutional infrastructure devoted its management and implementation, according to the specific regulatory purposes of each stage. Over all the historical process which led to the current food safety regulatory framework, priorities and approaches were different, as well as the institutional, socio-economical and political context in which such process took place. In this paragraph we will thus take into account how policies and regulatory bodies have addressed and impacted food safety issues.

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79 Ibidem, Art. 42, 63

80 Ibidem, Art. 62

81 Ibidem, Art. 69

82 http://www.gov.cn/english/2005-08/24/content_179502.htm

83 2015 Food Safety Law, Chapter IV
2.1 Historical approaches to food safety and regulatory bodies

2.1.1 During the planned economy period (1949-1978)

After the foundation of the People’s Republic of China in 1949, the Food safety management was essentially aimed at supervising the hygiene standard of edible products, in a directive planned economy, whereas the management responsibility was held by the competent administrative departments which had direct control over food producing state owned enterprises, with the support by health administrative bodies (China Food News, 1983). State-owned enterprises, whose activity was not targeted at the pursuing of independent interests and commercial goals, were overwhelmed by administrative goals, so that food safety risks were mainly related to nonmarket factors, which led to hygiene risks by cross-contamination, prolonged storage period and food spoilage (Chen, 1990).

During the planned economy period, food management and supervision was achieved by administrative internal measures such as appointment, dismissal, persuasion rather than legal and professional means (Wu and Zhu, Ibidem).

2.1.2 During the Reform phase (1978-1992)

After economic reforms and opening up, an hybrid management system arose along with the progressive replacement of the centralized planned economy by a market economy. Food industry developed at a high pace, becoming the third biggest industry of the Country in 1987, reaching a total output of 113,4 billion yuan (Yang and Xu, 1988). State owned enterprises where increasingly accompanied by other kinds of ownership, so that the previous management system of food safety required to be updated according to this new situation.

The Food Hygiene Law for Trial Implementation in 1983 gave more importance to the Health department as the main enforcer, without however abolishing other departments rights on food safety management, giving supervision power to some non-health departments in selected areas, decentralizing the food hygiene management: industry and commerce department was in charge of the food hygiene of urban and
rural markets, the animal husbandry department was in charge of livestock and veterinary health inspections, and so on (Xu, 1992).

Along with such a transformation, food hygiene remained the main concern on food safety, while the health hazard gradually shifted from the consumption stage towards the production phases.

2.1.3 During the socialist market economy phase (1992-2013)

In 1992 China declared its aim to develop a socialist market economy, this implied the separation by government departments from state owned enterprises and the consequent transformation of food safety management system into a third-party regulatory system.

Such an arrangement clearly emerged with the implementation of the Food Hygiene Law (1995). In 1998 the State Council established the State Bureau of Quality andTechnical Supervision (SBQTS), in charge of the approval and release of national food hygiene standards and the absorption of the responsibilities previously held respectively by the State Administration of Grain and the Ministry of Health in the field of grain and oil detection systems, methods and quality standards (Wu and Zhu, Ibidem).

The industry and commerce department replaced the quality and technical supervision department in the supervision and management of food circulation, while the department of agriculture kept the quality and safety supervision and management in the primary agricultural production stage. In 2003 the previous State Drug Administration turned into the State Food and Drug Administration (SFDA), which assumed the comprehensive supervision and coordination of food safety (Yang, 2009).

This framework was officially established by the State Council in 2004\(^84\), with the department of agriculture responsible for the the agricultural production, the quality control department for the supervision of food processing, the industry and service department for the supervision of food circulation, the health department for the su-

\(^84\) [http://www.sda.gov.cn/WS01/CL0056/10755.html](http://www.sda.gov.cn/WS01/CL0056/10755.html)
pervision of catering and consumption, while the SFDA was confirmed into the role of coordination and general supervision.

The Sanlu melamine crisis in 2007 brought the government to seriously pay attention to food safety. The result of this commitment was the Food Safety law in 2009 and the subsequent establishment of the Food Safety Commission under the State Council in 2010 as a high-level agency for the central government to coordinate food safety issues.

**Exhibit 1.** Food Safety Management System in China before 2013

![Food Safety Management System in China before 2013](image)

**Source:** Wu and Zhu, 2014

In 2011 the same commission acquired more responsibilities, previously held by the Ministry of Health, such as coordination on food safety, investigation of major food safety incidents and disclosure of important food safety information.

The Exhibit 1 highlights the management system which arose along with the above described transformations: a multi-departmental system under the comprehensive coordination by the Food and Safety commission.
2.1.4 Present situation (from 2013)

Despite of the great focus on food safety by the Chinese government and the deep transformation which the management system has undergone along its history, the food safety system as reformed after the implementation of the Food Safety Law in 2009 has revealed many drawbacks.

As Dong and Chu (2013) put it, the involvement by many departments implied the risk of responsibility overlaps and regulatory resources dispersion, with low law enforcement efficacy and low efficiency. For this reason, in February 2013, the Institutional Reform and Functional Transformation Plan of State Council, approved by the First Session of the 12th NPC, along with the Notice on Organizational Structure issued by the State Council, reshaped the food safety management system, by integrating the responsibilities of the Food Safety Commission of the State Council, the State Food and Drug Administration, the General Administration of Quality, Supervision, Inspection and Quarantine and the State Administration for Industry and Commerce within a new organ, named China Food and Drug Administration (CFDA), set up directly under the control of the State Council (General Office of the Chinese State Council 2013a).

Supervision, management of food and drug safety, the improvement of the efficacy in production, circulation and consumption were then brought under the sole responsibility of CFDA. The assessment of food and drug safety risk was attributed to the newly established National Health and Family Planning Commission (NHFPC), while the supervision of the agricultural supply chain was given in charge to the Ministry of Agriculture.
The CFDA, which formally took over the former Food Safety Commission Office, was formally established on 22nd March 2013 and defined as the core of the new Chinese food safety management system by the State Council’s regulation on *Key Responsibilities, Internal Structure and Staffing of the China Food and Drug Administration*, issued on 31st March 2013 (Exhibit 2).

### 2.2 Food Safety issues and trends in China: an overview

Notwithstanding the reform efforts over the years and, to a certain extent, as an inferential evidence of such an unceasing strive by the authorities to tackle the issue, food safety is still a widely discussed matter in China.
However, it could be worth to ask, what is the current situation? How better (or less) is it in comparison to previous stages of the evolution of the legal framework and the relating management system?

As Chen (2017) argues, it could be difficult to compare different stages, because of a diachronic analysis can be jeopardized by different data collection standards and methods, implemented by different institutions over time, probably, with different grades of reliability. Nonetheless, the Chinese government has been collecting data on food compliancy since 1980, so that a temporal overview is possible, although with all the above described limitations and reserves.

**Exhibit 3.** Food compliance rate in China (1985-2015)

Exhibit 3 highlights a growing trend of the food compliance rate increased in the past 30 years from the 71% to the 97% in 2015, along with a growing amount of the tested sample (Million of tons, in brackets).

Exhibit 4 shows a breakdown of the compliancy rate per category, revealing that against the current low variance of the compliance rate for each category, the situation
in the past years was much more variegated, with soy sauce, milk & diary and meat & poultry products lagging far behind the other categories.

**Exhibit 4.** Food compliance rate in China per category (1985-2015)

![Graph showing food compliance rate](image)

**Source:** Chen, 2017

*refers to soy sauce compliance rate*

According to Chen (Ibidem), the causes harming the food safety have to be found in the institutional infrastructure and technical capability, whose shortcomings on food supply chain worsen the risk of food-borne diseases. Moreover, a big part of the hazard resides in the agricultural production stage, where illegal use of chemical agents and environmental pollution harm the quality of the
food since the beginning of the supply chain, while the small-scale of many operators, makes the surveillance and regulation enforcement hard to be pursued\textsuperscript{85}.

Another major risk source for food safety comes from the food adulteration. Said that adulteration does not necessarily imply a fraud, whereas adulteration is a normal processing phase for many licit food products, the Chinese government has taken a proactive regulatory action in order to prevent the use of chemical and illegal additives\textsuperscript{86}. The NHFPC has issued in 2013 a blacklist “non-food substances that should not be added to food”, then updated in 2014\textsuperscript{87}.

This implies also a psychological facet of food safety, whereas people limited understanding of technical instructions on food safety can generate hysterical and irrational reactions and behaviours, in front of untrue believes spread by the media and social networks on the one hand, and skepticism on authorities and expert suggestions (Chen, Ibidem). The consequences of such a phenomena on the consumer behaviour and confidence can be self-evident.

\textbf{2.3 Recent policies on food safety}

As food safety is a crucial matter, extremely meaningful for the people’s quality of life and consumers confidence, the government has traced important policies aimed at ensuring the progress towards a better food safety environment.

The basic reference for food safety related policy is the 13th five year plan (2016-2020) and in particular its 18th and 60th chapters\textsuperscript{88}.

18th Chapter, titled “Strengthen capacity for ensuring safety of agricultural products” focusses on the upstream processes in the food supply chain, at the agricultural stage.

\textsuperscript{85} http://www.xinhuanet.com/edu/xhhkt/20150228a/index.htm

\textsuperscript{86} as widely described in the previous paragraphs

\textsuperscript{87} http://resources.selerant.com/food-regulatory-news/blog/nhfpc-published-list-of-non-food-material-which-may-be-illegally-added-to-food

\textsuperscript{88} http://en.ndrc.gov.cn/newsrelease/201612/P020161207645765233498.pdf
It addresses six areas in which to intervene in order to improve the quality and safety level of agricultural production:

1) Safeguards for grain production: building of farmland irrigation systems and water conservancy infrastructure, restoration and reconversion of lands to agricultural use, establishing functional zones and protected areas for the production of major agricultural products and grain crops.

2) Agricultural structural adjustments: actively guiding the adjustments to the production mix of agricultural products for the optimization of the supply chain and the quality control of each stage.

3) Integrated development in the rural areas: promote a well balanced and sustainable integrated development model for rural areas, with the integration of primary, secondary and tertiary industries.

4) Strengthening of Product quality and safety: improve and implement agricultural standards along the whole value chain.

5) Sustainable Agricultural Development: pursuing the “zero growth” in the use of chemical fertilizers and pesticides. Implement a demonstration project for circular agricultural through integrated planting and breeding. Fight the agricultural pollution for non-point sources, in particular soil pollution.

6) International cooperation: promoting the international trade for stabilizing the demand and supply of quality food. Actively pursue the agricultural cooperation aimed at establishing large-scale internationally competitive offshore centres for farm product production, processing, storage, transportation. Promote the bilateral and multilateral agricultural cooperation in technology transfer.

Food safety is also mentioned as an important target by the 60th Chapter, titled “Promote a Healthy China”, specifically in its Section 8, “Food and Medicine Safety”. This section introduces a food safety strategy, which will pass through the following points:

- Improvement of safety laws and regulations, standards, focussing at the source.
- Food enterprises will be called to assume responsibility for food safety, exercise grid-based oversight, increase the frequency of inspections, carry out sample-based monitoring and achieve product traceability.

- Development of model food safety cities.

This strategy has been strengthened by a sector specific plan of food safety released in 2017, titled “13th National Food Safety Plan”. The plan establishes as its main objectives the following points:

1. Arranging of a national unified sampling-based inspection model, to be carried out by each Province.

2. Agricultural source of pollution to be managed in order to reach at least the 97% of test compliance rate for agricultural products quality.

3. Strengthening of on-site inspections by means of professional inspectors and the standardization of enforcement procedures.

4. Improvement of national standards.

5. Food safety supervision and technical support capability improved and import and export food inspection to be harmonized with international standards.

3. CHINA’S FOOD SAFETY STANDARDS AND THE INTERNATIONAL LAW

Up to now, we have analyzed the way in which a China food safety regulatory framework has emerged, under the perspective of the provisions and the policies that the national authorities have enacted at each stage of the history of the People’s Republic of China. Nonetheless, the evolution of a national regulatory framework cannot be fully explained and understood without considering the process of opening-up and harmonization with the international system that characterized the developmental path of the country since late ‘70s. The evolution of China food safety regulatory fra-

89 http://www.sda.gov.cn/WS01/CL0852/169745.html
mework should be thus framed within the perspective of the emergence of a global governance for food safety, arisen along with the increasing interdependence of the world economy, a process that China officially joined on 2001 with the accession to WTO, after more than twenty years of reform and gradual convergence. Notwithstanding, the relation between China and the international governance is not only characterized by a mere convergence pattern, whereas a general trend towards harmonization is counterbalanced by a certain degree of national discretionary characterization.

### 3.1 The global governance of food safety

This paragraph aims at offering an overview about the major international institutions concerned with food regulation and their interrelationship, in order to map the global governance of food safety, as the overarching context where the specific case of China has place.

The food safety global governance can be summarized into a three main pillars system, which interact themselves and with a dense network of international bodies, which mainly originate from them. The three pillars are Food and Agricultural Organisation (FAO), the World Health Organisation (WHO), the World Trade Organisation (WTO); amongst the other bodies, we will take into account are the Codex Alimentarius Commission (CAC), the International Food Safety Authorities Network (INFOSAN), the World Organisation for Animal Health (OIE), the International Plant Protection Convention (IPPC) and the International Organisation for Standardisation (ISO).

The FAO is a UN Agency founded in Rome in 1945, accounting for 145 member states, amongst which China. Although food safety was one of the most important tasks of FAO, it was overcome by food security, which can be considered as the institutional main mission (McCalla & Cesar, 2001). Anyway, food safety remains a critical priority, as revealed by the Commitment Two of the Plan of Action released in occasion of the 1996 World Food Summit, whereas it is stated that the organisation aims at

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90 For a more in-depth analysis of the key international institutions concerned with food safety, see Lin (2011).

implementing policies for assuring the access by all to “nutritionally adequate and safe food”92.

While food security is the main task of FAO, food safety is one of the core purposes of WHO. The WHO is a UN Agency based in Geneva, accounting for 194, including China. The institutional “primary role is to direct and coordinate international health within the United Nations’ system”93, “setting norms and standards and promoting and monitoring their implementation”94. The WHO has its Constitution, that was adopted in 1946 and came into force in 194895. According to it, WHO’s objective is “the attainment by all peoples of the highest possible level of health”96, which is pursued by “proposing conventions, agreements and regulations, and making recommendations” about “international standards with respect to food” and other products97.

The WHA, which is the main WHO organ98, can adopt conventions or agreements within the institutional competence, which will come into force upon the acceptance by each member state, according to its own constitutional process99. The WHA can also adopt regulations about “standards with respect to safety, purity and potency of biological, pharmaceutical and similar products moving in international commerce”100. albeit food is not expressly mentioned, under the light of the above mentioned Article 2, it can be assumed that food can be included into the list as a “si-
similar product”. Such regulations come into force upon notification by the WHA to members, unless the members do not “opt-out” of the regulation\textsuperscript{101}.

The WTO, which China accessed in 2001, is the third pillar of the global food governance. Mainly concerned with commercial facets of the relationship amongst its members, it plays a major role in international food safety regulation, mainly by means of the Agreement on Technical Barriers and Trade (TBT) and the Agreement on Sanitary and Phytosanitary Measures (SPS). The TBT Agreement is particularly important to our analysis as it bind WTO members to not use non-tariff barriers, such as standards, as protectionist measures\textsuperscript{102}, inviting the member states to converge towards international standards as much as they can\textsuperscript{103}.

More importantly, the SPS Agreement is aimed at establishing a “multilateral framework of rules and disciplines for the development, adoption and enforcement of sanitary and phytosanitary measures in order to minimise their negative effect on trade”\textsuperscript{104}.

Members have the right to take sanitary and phytosanitary prevention measures only in case the measures are not against the agreement itself\textsuperscript{105} to the extent necessary to protect human, animal or plant life or health\textsuperscript{106}, basing their decision on scientific criteria\textsuperscript{107} and their measures on international standards, where available.

Said about the three pillars concerned -to many extents- with food safety and their division of labour, the governance dimension arises from their mutual interaction, which gives birth and involves a large number of actors.

\textsuperscript{101} Ibidem, Art. 22

\textsuperscript{102} TBT Agreements, Art. 2 (5)  
https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm

\textsuperscript{103} Ibidem, Art. 2 (6)

\textsuperscript{104} SPS Agreements, Chapter 4, note 4, Preamble 4th recital  

\textsuperscript{105} Ibidem, Art. 2 (1)

\textsuperscript{106} Ibidem, Art. 2 (2)

\textsuperscript{107} Ibidem, Art. 3 (1)
With no presumption of exhaustivity, we will now focus on the most important relationships between the three pillars and international bodies.

One of the most important examples is the INFOSAN, which was created in 2004 as a joint initiative by WHO and FAO\(^\text{108}\). INFOSAN is an international network that promotes rapid exchange of information about food safety issues between Member States. 181 Member States food safety authorities take part in the network, with their designated Contact Point. As far as China is concerned, the Contact Point is located in the Ministry of Health.

A less recent joint activity by WHO and FAO, dated back in 1963, is the CAC (Codex Alimentarius), an important intergovernmental body devoted in protecting the health of consumers, promote the coordination of food standards, drafting and amending them where necessary\(^\text{109}\). It accounts for 187 Member States, 1 Member Organisation (EU), 219 Observers, amongst which many Intergovernmental Organisations (like WTO), NGOs and UN Bodies. The main organs of CAC are the Commission, the Executive Committee and standard-setting committees. Standards are proposed by member states to the Commission (or its Executive Committee), which decide whether the proposed standard should be developed and then circulates the proposal to Member States for consideration and comments. The proposal (and related comments) is then reviewed by the relevant standard setting committee, which prepares a draft to the Commission. The Commission then decides whether to adopt the draft and send it back many times to Member States, in a step process, in order to build the largest consensus. Once terminated this process, the standard is added to the Codex Alimentarius\(^\text{110}\).

Other important bodies which take part to international food safety governance are the former Office International des Epizooties, renamed World Organisation for Animal Health (still OIE), intergovernmental body whose main task is to inform and monitor

\(^{108}\) [http://www.who.int/foodsafety/areas_work/infosan/en/](http://www.who.int/foodsafety/areas_work/infosan/en/)


\(^{110}\) Codex Procedural Manual, Section II, Elaboration of Codex Standards and Related Texts
animal diseases, the International Plant Protection Convention (IPPC), an international treaty on plant protection, established with its own secretariat in 1992 and the International Organisation for Standardisation (ISO), a non-governmental body made by 165 member national standards bodies.

### 3.2 China standards evolution, internationalization and challenges

In joining the above described food safety global governance and -more generally- the world economy, one of the biggest challenge for China is to increase its capability to comply with international standards. In this paragraph we will take into account the development of the standards regulatory framework in China, which reveals a general path towards harmonization with the international system, with two main milestones, represented by the Standardization Law in 1988 and the accession to WTO in 2001.

The first China’s Standard Law dates back to 1946 and it can be assumed as the first regulatory comprehensive measure introducing a normative framework for standardization.

After the foundation of the People’s Republic of China in 1949, the Standard Bureau of the State Commission of Science and Technology was established following the Soviet model in 1957, to which followed the “Administration Statute of Technical Standards for Product of Industry, Agriculture and for Project Reconstruction” issued by the State Council in 1962, as an initial attempt to delineate the national nomenclature into three types of standards: national, ministry and enterprise. The Cultural Revolution (1966-1976) suspended this regulatory framework, that was finally replaced by a new one, with the implementation of a series of measures: the “Administration Statute for National Standardization” (1979), the “(Trial) Administration Statute for Adopting International Standard” (1982, finally confirmed in 1984).

An important turning point of China’s standards evolution was in 1988, when the current Standardization Law was adopted, and come into force in 1989.

It introduced a four layered hierarchical system of standards, coded as follows: “GB” for national standards, “DB” for local government standards, “O” for enterprises
standards and “GB/Z” for National Standardization Guiding Technical Documents, in relation to fast developing technologies\textsuperscript{111}.

According to the Chinese concept of standard, the same is not always legally binding: it may refer to a recommendation as well as a compulsory measures. In order to dissipate any doubt, the Article 7 states that not-legally binding standards should be coded with the letter “T” in addition to the standard code (\textit{i.e.} GB/T). As far as our analysis is concerned, it is important to remind that for the same Article, all food related standards are compulsory. The Standardization Law revealed a clear first move towards international harmonization, whereas it encouraged the active adoption of international standard\textsuperscript{112}.

The Standardization Law capacity was then furthered by its Implementation Regulations, issued by the State Council in 1990. The pattern remained the same, but greater attention was paid towards non-compliance sanctions\textsuperscript{113}, administrative division of labour\textsuperscript{114} and the relation between national and international standards\textsuperscript{115}.

Important progresses towards the harmonization of Chinese with international standards were made in occasion of the entrance of China in the WTO (2001). As of the WTO accession procedure, China and the US signed a bilateral agreement in 1999, which stipulated that China would respect WTO provisions about non-tariff barriers (such as standards). A similar agreement has been signed in 2000 between China and the EU, with focus on SPS provisions. On the basis of these two bilateral agreements and the accession to WTO, the AQSIQ issued on the 12th April 2001 Measures for the Administration of Adoption on International Standards, with the scope to clearly define the relation between national and international standards. It is important the definition that the Article 2 of the Measures gives to the term “adoption”, meaning “tran-

\textsuperscript{111} Standardization Law, Art. 6

\textsuperscript{112} \textit{Ibidem}, Art. 4

\textsuperscript{113} \textit{Ibidem}, Art. 32, 33, 34

\textsuperscript{114} \textit{Ibidem}, Art. 3

\textsuperscript{115} \textit{Ibidem}, Art. 4
sforming, identically or after modification, the international standards into the standards of China […] after analysis, testing and verification, examining and approving, and promulgating the standards according to the procedure of examination and approval, and promulgation of the standards of China”.

As Sneyder (2015) puts it, such a broad interpretation of “adoption” leaves a certain margin of discretion in the translation of international standards into the Chinese legal system, giving them “Chinese characteristics”, while keeping on the track of harmonization.

Since the accession to WTO, and in particular after the Food Safety law in 2009, China has been developing a huge number of food safety standards, announcing over 700 measures between 2009 and 2014, and playing a more and more important role in SPS Notifications, ranking amongst the top three countries in the world (Arita, 2017).

Moreover, the Administrative Measures for National Food Safety Standards expressly provide that safety standards will fulfill the obligation of notification to WTO, providing a legal basis to WTO/SPS notification of Chinese food safety standards. Nevertheless, despite of such an evident attempt to further the transparency in fulfilling the SPS Agreements, China still lacks in expertise and technical capacity in dealing with specific trade concerns by its international partners, with limited capability to study on technical standards of other members and to assess the health, economic and social impacts on China itself of the technical measures notified by other WTO members, making of standard harmonization a result yet to be achieved (Arita, Ibidem).

4. CHINA’S FOOD MARKET: FOREIGN FIRMS PERSPECTIVE

The transition towards an internal consume-based development model (see Paper 1) along with the growing attention paid by the public towards food safety and food quality issues are likely to benefit foreign producers, increasing the potential for safe and good quality products. Nevertheless, improving regulatory measures enacted by lawmakers can act as a barrier for exporters, as well as targeting a market characterized by a deeply peculiar culture like China, with long and diverse alimentary traditions and habits, represents a challenge that can be hardly overestimated.
In this section we are going to talk about the opportunities and the barriers that foreign company are likely to encounter when approaching China and its food market.

4.1 Market opportunities and barriers: an overview

Four decades of unprecedented economic growth led China to rank as a middle-income country, with a fast growing middle class. According to a McKinsey&Company report issued on 2013\textsuperscript{116}, the upper-middle class which accounted for the 20% of total households in 2012 is projected to reach the 56% of households in 2022, with the most wealthy segment of the population moving from 11% to 25% during the same timeframe. Such a strong and widespread growth of the incomes is likely to boost the consumptions, above all for what that concerns luxury and imported goods.

As for the Food&BeVERAGE sector, this trend is evident. An EUSME Centre Report dated 2015\textsuperscript{117}, highlights how F&B service sector ranked as the world second biggest as early as in 2013, with a growing trend.

Along with growing income, the same report indicates urbanisation and infrastructural development as the main drivers for F&B sector, with the urban population projected to reach one billion by 2030\textsuperscript{118}.

Higher purchasing power and major attention to food safety and quality are likely to boost the import of quality food.

Exhibit 4 shows us as the import of food to China had been generally increasing over the period 2012 to 2016, with a peak in 2014 and lower levels in 2015 and 2016.

\begin{itemize}
\item \textsuperscript{116} http://www.mckinsey.com/industries/retail/our-insights/mapping-chinas-middle-class
\item \textsuperscript{117} http://eusmecentre.org.cn/report/food-beverage-market-china
\item \textsuperscript{118} http://www.csstoday.net/xueshuzixun/guoneixinwen/84137.html.
\end{itemize}
EU-28 is the top exporting area (Exhibit 5), followed by ASEAN countries and USA. While EU-labeled food is recognized by Chinese customers as the most quality one, due to stricter food safety standards, ASEAN area enjoys a proximity advantage, while, USA food has in price competitiveness its major advantage (EUSME Center, 2015).
The Exhibit 6 offers an insight of the major import food categories, with meat, aquatic products, oil and diary accounting for more than 65% of total imports.

**Exhibit 6.** Food import to China per kind, billon US dollars (2016)

![Bar chart showing food import to China per kind in 2016](chart.png)

**Source:** AQSIQ, 2016

When we talk about China, we have always to consider the continental extension of its market, characterized by uneven levels of economic and infrastructural development. More than a single national market, China is better described as a system of many local markets. The Exhibit 7 shows that the province of Guangdong and the municipality of Shanghai are the privileged spots of entry for imported food products, with a cumulated share of 45%, followed by the northern-east areas represented by the municipality of Tianjin and the province of Shandong.

Lower volumes are accounted to other coastal provinces such as Liaoning, Jiangsu, Fujian an Zhejiang. This pattern traces both the absolute importance of Shanghai and Guangdong as entry ports, both the major economic development of eastern and southern areas. Ports in second tier cities offer a growing range of services, such as bonded storage with temperature-controlled services, inventory tracking, processing
and reprocessing bonded areas and similar. However the situation dramatical changes when moving inward, with inner areas not always covered by efficient services, which make the transportation of food (markedly of food requiring the cold-chain transportation) difficult to be carried out (EUSME Centre, 2015).

**Exhibit 7.** Main spots of entry for food products to China, billon US dollars (2016)

![Bar chart showing main spots of entry for food products to China](image)

**Source:** *AQSIQ, 2016*

Since China entered the WTO in 2001 many tariff barrier have been lifted, while bureaucratic obstacles continue to be the main concerns for the foreign exporter. Registration, labelling, certifications are the most time and money consuming procedures that affect the foreign companies wishing to enter the Chinese market.

Since 2012, all the foreign exporters have to register to AQSIQ. Although guidance is offered in English, the information must be mandatory filled in Chinese.

Labelling standards impose exporters to show a white label on their products, with relevant information in Chinese, such as product, manufacturer and distributor information. The label must be previously approved by the Chinese Inspection and Quarantine Service (CIQS), whose requirements are often not clear-cut and difficult to in-
terpret. At the custom clearance a sanitary certificate issued by the CIQS should be attached to the required documentation.

Other certification can be required according to the product peculiar nature, such as in the case of Organic Food (see the next paragraph).

Aside from regulatory and bureaucratic barriers, one of the hardest barriers to overcome is distribution. China’s imported food distribution, in fact, is highly fragmented, with few distributors with more than 1000 product references in their catalogue (EU-SME Center, Ibidem).

Aside to traditional distribution, E-commerce is emerging as a more and more important alternative, with many retail stores suffering the increasing preference of online shopping by Chinese customers (USDA, 2014).

According to Ebrun, a Chinese e-commerce portal, however, e-commerce is characterized by several issues that the foreign company should pay attention to:\(^{119}\):

- Distribution costs
- Promotion costs
- Warehousing and logistic requirements
- Potential configs amongst e-commerce and other distribution channels

In addition to marketing and operational issues, e-commerce environment present also many regulatory barriers, as we will analyse in depth in the last paragraph of this chapter.

4.2 Regulatory barriers. The case of organic food certification

Despite the general trend towards harmonization that the regulatory efforts by Chinese lawmakers have been following in the last decades, as described in the previous paragraphs, complying to the growing in number and ever more demanding standards

can be not easy for the foreign enterprises that wish to enter the market. In this paragraph we will focus our analysis on the regulatory environment which disciplines the distribution of organic food in China, as it developed since its first stage in eighties up to today, with a closer eye to European exporters.

The normative framework that regulates the Organic food production and distribution in China has arisen from eighties and is the result of a gradual harmonization of national regulations with international standard. Notwithstanding, China has its own Organic food national standard, with no mutual recognition with USA, EU and Japan standards. That implies the need for foreign exporters to undergo a certification process before being allowed to trade their product as “organic” in China.

The beginning of methods and regulation on organic food production can be dated back to 1984, with the foundation of the Section of Rural Ecology (SRE) to the university of Nanjing, whose scope was the definition, application and promotion of sustainable and organic agricultural methods. The same SRE has been admitted to the IFOAM (International Federation of Organic Agriculture Movements) in 1989, thus receiving a first important international acknowledgement. Three years later, in 1992, the China Green Food Development Center (CGFDC) was instituted under the jurisdiction of the Ministry of Agriculture, with the aim to be recognized as the reference certification centre for Chinese export organic food (Liu, 1999).

However, the so-called Chinese “Green Food” (绿色食品) was only partly comparable to the so-called Western “organic food”. As reported by Casalin (2005), Green Food definition explicitly allows the use of synthetic substances, as long as their parameters are under control and compliant to the law, while one of the most important pillars of organic food production is the absolute ban of such products. Such a deep difference between the Chinese “green standard” and the western “organic standard” limited the export of Green Products, leading the CGFDC to introduce an important change in 1995. The Green Food certification was divided into two classes, the A and the AA classes. The second one was more restrictive and totally banned any synthetic substance in the production process, converging towards the international standard for organic products.
The reaction of the internal market was positive, and the Green Food movement developed fast in the following years over the whole supply chain, with many producers, distributors/retailers, foreign certification bodies joining the sector\textsuperscript{120}.

However, such a fast development also led to confusion, with uneven certification standards, fake green and organic products, products using misleading information, and the like\textsuperscript{121}.

In order to find a solution to this situation, the Certification and Accreditation Administration of the People’s Republic of China (CNCA), which is the national administrative body overseeing all types of certification and accreditation within China, in 2005 enacted the first comprehensive regulation for Organic Food certification (有机食品认证管理办法, Implementation rules for the Certification of Organic Products), determining univocal certification standards for “Organic Food” (有机食品) and banning the use of any misleading label by producers (like “no pollution food”, “natural food”, and similar ones).

According to such regulations, as the Chinese organic regulatory system does not yet recognize other systems, inspection and certification at all operational stages, must comply with Chinese standards GB/T 19630-2005, even if such operations have already been certified as organic abroad.

The administrative body who takes charge of implementation of certification works (like site checking, lab test on soil, water and product qualities) is the China Quality Certification Center (CQC), which is an agency of AQSIQ. As there is no mutual recognition amongst China and foreign certification bodies yet, inspection works have to be carried out exclusively by Chinese authorities, increasing the certification costs for foreign exporters (Intracen, 2011)\textsuperscript{122}.

\textsuperscript{120} http://www.gxnry.gov.cn/news/sannong/mtksn/200509/t20050917_52792.html

\textsuperscript{121} Mu Ziyi, “Consumer swallow organic food claims”, China Daily, 15 March 2005.

4.3 Distribution and regulations. The case of e-commerce

China is since 2013 the biggest world e-commerce market, with an overall sales turnover amounting to 600 billion euro in 2015, accounting for the 15% of the whole retail sales. The growth forecast for this sector, is even more astonishing: pulled by increasing purchase power by a growing middle-class and by the progressive penetration of internet accessibility, with still no more than the 50% of the population covered in 2015, previsions set at the 20% the yearly growth rate for the years to come, up to 2020. The 36% of the whole online retail sales is made by B2C transactions (CE-Sif, 2016). E-commerce probably is the most interesting distribution channel for imported fresh food products, just like fresh food is one of the most interesting segment within the e-commerce industry. According to the China National Statistic Bureau, e-commerce retail sales growth rate has slowdown to 26,5% in 2016. Notwithstanding, fresh food online sales increased by +68% in the same period, and are expected to increase by a similar rate in 2017.

**Exhibit 8.** Fresh food online retail sales in China in 2016 (100 million RMB)

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**Source:** CECRC, 2016
The Exhibit 8, showing data from the China E-Commerce Research Center\(^{123}\), highlights how the online retail sales reached 91.3 billion RMB in 2016, close to 14 billion USD, more than 20 times their value in 2012.

Such a huge potential is nonetheless counterbalanced by important access barriers which are likely to heavily influence the strategy range adoptable by foreign enterprises.

At its very earliest stage, e-commerce sector in China has developed in a somewhat disordered manner, within an environment characterized by a low degree of regulation. While this has encouraged the development of the industry, on the other hand it brought many cases of intellectual property infringements and fraud. In order to further develop the sector and increase the amount of confidence by both investors and consumers, the Chinese government since 2011 has enacted a series of measures aimed at enacting a comprehensive legislative framework and attracting the investment by foreign influential e-commerce enterprises (Zhang, 2013).

The first set of regulations which substantially lifted the restrictions on foreign investment in the online retail sector, as a result of the country’s WTO commitment to realize an open market, is “Measures for Administration of Foreign Investment in the Commercial Sector”, issued by the MOFCOM in 2004. For the first time foreign business were allowed to invest through a foreign-invested commercial enterprise (FICE), which can take the form of a wholly foreign enterprise owned or joint-venture, as prescribed by the China’s Company Law\(^{124}\). In 2010, the MOFCOM issued the Circular on Several Issues Concerning the Approval and Administration of Foreign Investment in Online Sales and Automatic Vending Machines (Shangzizi [2010] No. 272, “Online Sales Circular”), which clarified that on-line sales are to be intended as an extension of an enterprise’s sales activities, allowing thus any preexisting foreign manufacturing and commercial enterprise to engage in online sales, without previous approval by the MOFCOM, and devolving from the central to the provincial commer-

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\(^{123}\) [http://b2b.toocle.com/detail--6397555.html](http://b2b.toocle.com/detail--6397555.html)

\(^{124}\) China’s Company Law has firstly been enacted in 1993 by the 5th session of the Standing Committee of the 8th National People’s Congress. It has been then revised in 1999, 2004, 2005 and 2013.
ce department the approval of new foreign-invested enterprises exclusively devoted to e-commerce.

Nevertheless, the same Circular, by considering the online sales as an extension of the enterprise sales activities, excludes the possibility for the FIE to provide network services to other trading parties with its own online platform. Such a case is possible for a FIE only upon being granted of an Internet Content Provider (ICP) license from the Ministry of Industry and Technology (MIIT), as stated by the State Council Orders No. 291 and 292, promulgated the same day, on the 25th September 2000.

Obtaining an ICP license implies many restrictions and special requirements, under the facets of minimum registered capital, operational experience, capital composition, as specified by the State Council Order No. 534.

Anyhow, in the case that the FIE engages in online sales without opening to third-party vendors (which makes the case of a traditional foreign food producer/distributor), the ICP license is not required, although it needs to apply for an ICP filing number (Order No. 292).

Aside from the above listed restrictions, there is an array of regulations that a foreign company must comply with when undertaking online sales in China. First of all, it is good to recall that the above mentioned Online Sales Circular, in defining the scope and the nature of online sales as an extension of an enterprise's traditional sales activities, requires the operators to abide be the Law on the Protection of Consumer Rights and the Law on Product Quality.

Based on the Electronic Signature Law, released in 2004 by the Standing Committee of the NPC and come into force on the 1st April 2005, which establishes that an electronic document is as valid as a paper document, the China E-Commerce Association (CECA) released a Standard for Online Transaction Platform Services ("OTPS Standards"). The OTPS Standards essentially defines the nature of each possible online service to third parties constitutes a "value-added telecommunications service". For this reason, the FIE must comply with the following requirements:
- being a joint venture, with foreign participation in registered capital not exceeding the 50%
- have good track record of operating value-added telecommunications services
- minimum registered capital not beneath RMB 10 million (RMB 1 million, if the service is limited to one only Province)
- meet any other relevant requirement as stated by any relevant law and administrative regulation.

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125 According to the State Council Order No. 534, "Provisions on the Administration of Foreign-Invested Telecommunication Enterprises", providing online service to third parties constitutes a "value-added telecommunication service". For this reason, the FIE must comply with the following requirements:
transaction, explicating that transaction rules set by the vendor should comply with the China Contract Law and the necessary supporting technology should be guaranteed.

The OTPS Standards were integrated by the MOFCOM’s Announcement 21 (“Specifications for E-commerce Model and Standards of Online Transaction services”, “OTS Standards”), come into force on 1st December 2009. The OTS Standards set responsibilities for payment platform providers on the safety and effectiveness of transactions and data management. Moreover, they require transaction parties to use their real identities and disclose authentication information, such as business licenses and tax registration certificates, physical address and contact information.

Although the high degree of detail by which this code of conduct is set up by both the Standards, it is necessary to underline that no punitive measures are at present disposed for violations.

An alternative to setting up a company own online sales platform is to set up a shop on an existing third party platform. China’s e-commerce landscape, in fact, is dominated by few key third-party platforms. For instance, in 2014, TMall and JD, two of the main third-party platforms, accounted for the 80% of the whole online retail sales in China126. In this case, ICP filing is no more required, while each platform’s access minimum requirements can be stringent in terms of registered capital amount, operational track record, stock, annual rent, commissions and deposit.

A last option which remains possible for foreign company unwilling to invest and deal with the complex e-commerce legislative framework in China is the so-called cross-border e-commerce. In such an arrangement, a foreign exporter would sell its products to the Chinese final consumer directly from abroad, with no obligation to register as a FIE and to undergo any ICP license/filing procedure. As Monti (2014) puts it, although it is a licit solution, it brings a high level of risk and hardship for the foreign entrepreneur. On the one hand, because of RMB inconvertibility, it is difficult to receive a payment from the majority of the Chinese customers, who do not have foreign curren-

126 http://www.launchfactory88.com/selling-online-china-taobao-tmall-tmall-global/
cy means of payment\textsuperscript{127}, on the other hand -and most importantly- foreign website can be arbitrarily fall into the trap of censorship, carried out by the MIIT. Such a circumstance can occur with no advance notice and apparently with no clear reasons, and thus without any actual way for the foreign operator to act against it.

\section*{CONCLUSIONS}

In this Paper the food safety regulatory framework has been reviewed, as the trace of a broader evolution of the whole market attention to food safety issues.

Market potentialities, driven by the growing demand for quality and safe food, are counterbalanced by a more and more complex regulatory environment. Since its reform phase and in particular after its accession to WTO, China has been striving to align its food safety standards, management and technical capabilities to Western countries levels.

Fast changing and more complex regulations, nonetheless, represent a potential barrier to foreign exporters and investors, above all where procedures are not clearcut and straightforward, no matter if caused lacking of capabilities by the authorities or because of protectionist purposes.

Similarly, the lifting of direct barriers to trade, as a result of the WTO accession-related commitments, coexists with problematic regulatory provisions which act as a barrier, \textit{de jure} or \textit{de facto}, for foreign business wishing to engage with the Chinese market. Such a circumstance is well shown by the above described case of e-commerce and organic food certification, whose implications may be extended even beyond the peculiarity of the food and beverage market.

\footnote{\textsuperscript{127} as suggested by Monti (2014), such a problem might be overcome by opening an RMB bank account to one of the oversea branches of Bank of China or the ICBC.}
REFERENCES


Yang, L. and Xu, G. (1988). The Chinese food industry has been developing rapidly and ranks third in the industrial sector this year. People's Daily (29th November 1988)


ABSTRACT

• **Purpose:** this paper aims at providing an overview of the path that has been leading China to catch up with developed country’s environmental protection policies and regulations over the last decades, as the framework for the design of effective operations and business development strategies for foreign businesses.

• **Design:** the study is conducted with a multi-disciplinary approach, where institutional and juridical analysis are conducted with reference to the relevant historical and social background.

• **Findings:** China’s environmental protection regulations and policies have not developed at the same pace as its astonishing economic growth over the last decades. This led to extensive environmental damages, with serious risks for human health. Nevertheless, China’s authorities have been tackling environmental protection issues with growing attention and commitment over the last decades, with relevant implications for business strategies.

• **Research limitation/implication:** due to its multidisciplinary approach and limited space, the study may lack of a thorough insight of specific facets and sub-sectorial implications for foreign businesses, whose analysis is limited to the scope of this work, so that further and more in-depth research is needed.
• **Practical implications**: the study implies that a correct and in-depth understanding of the juridical, institutional and political aspects of the environmental protection reform is crucial for long-term strategies both with regards to business development in the green market, both on the operation management for business which manufacture and source in China.

• **Keywords**: China, environmental law, institutions, green market, business development

1. THE EVOLUTION OF CHINA’S ENVIRONMENTAL PROTECTION LEGAL FRAMEWORK

1.1 China and the environmental protection: background and institutional challenges

China’s economic growth since the launch of the Reform Age in late ‘70s was impressive and unprecedented. However, massive industrial development severely impacted the environment, with inadequate response by the authorities, that were unable (and to some extent, unwilling) to arrange a satisfactory prevention regulatory framework. According to Shapiro (2016), industrialization, population increase and urbanisation, were the main drivers that led to environmental deterioration.

Industry is by all means the first actor of pollution, because of the way by which manufacturing-related processes impact the environment as a whole. A study by Zhu, Pickles and He (2017) lists nonferrous metal mining, electricity and heating production and paper-making as the top-three pollution intensive industries in China. According to the same study, intensive pollution industries are located on the coastal regions of the Country, following the pattern of economic development.

Nevertheless, the relation between industry and pollution is not that straightforward, because of the great influence that environmental regulations and their enforcement by authorities are likely to exert on the emission of pollutant and their impact on the environment. Since the age of Reform, China’s administration pattern has been gran-
ting the local governments with a high degree of autonomy in the implementation of environmental and economic development policies (Jahiel, 1998), with both diachronic and synchronic effects on the geography of pollution: on the one hand, during the first stages of economic reform, developmental purposes were often privileged over environmental protection, on the other hand, government of less developed areas are more likely to compromise on environmental regulations, for a similar logic (Zhu et al., Ibidem).

The institutional point of view is then crucial for the understanding of China’s pollution issue, not only under the legislative aspect (which will be widely addressed in the following paragraph and through this work), but also under the perspective of the governance, which brings political and sociological matters into the analysis. McElwee (2011) highlights many institutional and cultural factors which affect the enforcement of environment regulations, jeopardizing the correct implementation at the local level of policies and regulations designed by the central government. The rule of law, in the terms by which it is defined in the western world, is a relatively extraneous concept to both confucianism and socialism (see this work Chapter 1), which are the main ideologies shaping respectively the legal culture background and the state layout in China.

Confucianism, in fact, ranks the law at a lower status within the sources of authority. This cultural background has not been disrupted by the socialist state, above all during the Maoist period, when the Ministry of Justice was shut down in 1959 and reopen only in 1979, three years after Mao’s death (Leng and Chiu, 1985). After the reform, the country kept its one party and authoritarian arrangement, even though decentralizing many functions to local authorities and gradually opening new channels for more pluralistic state-society relations, taking the form of a “responsive authoritarianism” (Weller, 2012; Reilly, 2011; Cai, 2004), where private and civil society stakeholders are increasingly tolerated -and sometimes encouraged- to take part into the public debate, on specific issues (Stockmann, 2012).

According to van Rooij et al. (2016), three new actors have been playing a more and more important role in the environmental protection governance in the last few years: citizens, prosecutors and judges. Citizens, intended as individuals and civil society,
could play a crucial role by identifying and report cases of illegal behaviour. However, on the one hand, access to information by the public is not necessarily and automatically correlated to a reduction of pollution risk (van Rooji et al., 2012), on the other hand, access to information does not automatically convert into a correct risk perception.

Even though Chinese citizens are more and more aware of pollution-related health hazards, the risk perception still lags far behind that of many high-income countries, like a study on the willingness-to-pay for smog mitigation suggests (Sun et al., 2016)\(^\text{128}\).

Said about the role of citizens, prosecutors and judges are likely to exert an equally important role, by supporting the enforcement efforts by environmental protection local authorities. In a confucian one-party state like China, however, the separation of powers is not clear-cut (see this work Chapter 1) and the judiciary system traditionally suffered a lack of autonomy from the executive power. It can be said, thus, that an increased pluralism in the state governance will be likely to fill the shortcomings of the state authorities in fulfilling their role in environmental protection to the extent in which new actors will be empowered and accredited to take part into the political process.

### 1.2 China's environmental law: historical evolution

#### 1.2.1 Earliest stages (1949-1977)

After the foundation of the People’s Republic of China in 1949 and through all the maoist period, which terminated with the opening-up reforms by Deng Xiaoping in late 70s is hard to talk about a real legal system for environmental protection. Firstly, because the focus of the country policies was centered on reconstruction and development, in the framework of a centrally planned economy; secondly, because the period was characterized by an ideological emphasis on political, rather than legal, categories as the main government principles.

\(^{128}\) The study shows that the average willingness-to-pay for preventing chronic diseases from smog in China is around the 1% of the income, 10 to 1000 times lower than US and Taiwan.
The Cultural Revolution (1966-1976) was the peak of this situation, with the rule of law close to be non-existent at the dawn of Reforms (Feng and Liao, 2015).

During this period, the few regulations which addressed environmental issues were sporadic and mainly originated by human health concerns (Bao, 2006), like the *Plant Health and Safety Regulations* (1956), which was a first attempt to regulate the plant wastes disposal, providing a safeguarding plant workers and nearby inhabitants, the *Decision on Preventing Silica Dust in Mining Companies* (1956) and the *Drinking Water Health Regulations* (1959).

After the chaos brought by the Cultural Revolution, in the wake of the Stockholm Conference (1972), China issued in 1973 the *Regulation on Environmental Protection*, which was the the first comprehensive -although preliminary- environmental protection set of measures in the history of PRC (Bao, Ibidem).

### 1.2.2 The Environmental Protection Law (1978-2014)

In 1978, the National People’s Congress amended the Constitution and included, for the first time, environmental protection into it, with the amended art. 26\(^{129}\), which stated that: “The State protects and improves the living and the ecological environment, prevents pollution and other damages. The State organizes and encourages and the protects forest trees”\(^{130}\).

This article acted as the juridical basis for the country’s environmental protection legal framework for the years to come.

The first, fundamental, step was the approval of the Environmental Protection Law (for Trial Implementation), in 1979. The same law has then been confirmed in occasion of its first amendment, in 1989. The Law provided the basic provisions for environmental protection, which acted as the basis for other specific laws.

The first act which followed the Environmental Protection Law was the Marine Pollu-

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\(^{129}\) PRC’s amended Constitution (1978). Available at [http://www.gov.cn/gongbao/content/2004/content_1_62714.htm](http://www.gov.cn/gongbao/content/2004/content_1_62714.htm)

\(^{130}\) Author’s translation from the original: “国家保护和改善生活环境和生态环境，防治污染和其他公害。国家组织和鼓励植树造林，保护林木”
tion Law, in 1982 (revised in 1998), which addressed the protection of the marine environment and its resources from pollution and unsustainable exploitation.

In 1984, the Water Pollution Law was enacted (further revisions occurred in 1996 and 2008), with the aim of protecting the country’s hydric resources and their safety (Art. 1 and Art. 2).

The Air Pollution Law was issued in 1988 (revisions were brought in 1995 and 2000) and targeted the prevention and the protection of air from atmospheric pollution. After the amendment and the confirmation of the Environmental Protection Law, in 1989, a second round of legislation began. In 1996 the Solid Waste Law (revised in 2004) covered the protection of the environment by solid waste pollution (Art. 1) of dry land, with exception of the seas, falling in the jurisdiction of the Marine Pollution Law (Art. 2). Clean production Law was issued in 2002, with the objective of promoting cleaner production practices, with lesser impact on the environment and the human health. The same year, the Environmental Impact Assessment Law has been enacted, with the purpose implement a pollution prevention framework, with conditional environmental appraisal to be carried out before the implementation of programmes and construction projects. In 2009, the Circular Economy Law, supporting the improvement of the circular economy and of resource usage efficiency, concluded the legal framework.

Exhibit 1. Laws on environmental protection after the enactment of the first Environmental Protection Law in 1979

<table>
<thead>
<tr>
<th>Laws</th>
<th>First release</th>
<th>Amendments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Pollution Law</td>
<td>1982</td>
<td>1999</td>
</tr>
<tr>
<td>Water Pollution Law</td>
<td>1984</td>
<td>1996; 2008</td>
</tr>
<tr>
<td>Solid Waste Law</td>
<td>1996</td>
<td>2004</td>
</tr>
<tr>
<td>Clean Production Law</td>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>Environmental Impact Assessment Law</td>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>Circular Economy Law</td>
<td>2009</td>
<td></td>
</tr>
</tbody>
</table>

**Other provisions:**

<table>
<thead>
<tr>
<th>Law</th>
<th>First release</th>
<th>Amendments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry Law</td>
<td>1984</td>
<td>1998</td>
</tr>
<tr>
<td>Grassland Law</td>
<td>1985</td>
<td>2003</td>
</tr>
<tr>
<td>Fishery Law</td>
<td>1986</td>
<td>2000; 2004</td>
</tr>
<tr>
<td>Land Administration Law</td>
<td>1986</td>
<td>1998; 2004</td>
</tr>
<tr>
<td>Mineral Resources Law</td>
<td>1986</td>
<td>1989</td>
</tr>
<tr>
<td>Water Law</td>
<td>1988</td>
<td>2002</td>
</tr>
<tr>
<td>Wildlife Protection Law</td>
<td>1988</td>
<td>1989</td>
</tr>
<tr>
<td>Water and Soil Conservation Law</td>
<td>1991</td>
<td></td>
</tr>
<tr>
<td>Desertification Law</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>Radioactive Pollution Law</td>
<td>2003</td>
<td></td>
</tr>
</tbody>
</table>

Source: McElwee (Ibidem)

The above listed provisions can be classified according to their function and scope within the Environmental Protection legal framework. The Water Pollution Law, Air Pollution Law, Solid Waste Law are focussed on a certain kind of pollution source. There are then resource-focussed instruments, like the Grassland Law, Forestry Law, Water Law, Fishery Law and the like, which are more focussed on resource management. Finally, the Environmental Assessment Law and Circular Economy Law address the environmental management and sustainable development issues on a comprehensive and cross-sectorial level.

1.2.3 **The New Environmental Protection Law (2015)**

After more than 25 years, on the 1st of January 2015, a new amendment of the Environmental Protection Law (1979, 1989) came into force, providing the country with the most up-to-date and stringent provisions on environmental protection\(^{131}\).

The former law 47 articles were expanded to 70 articles\textsuperscript{132}, with important innovations (Padoan, 2016):

- Increased responsibilities and penalties for polluters
- Increased responsibilities for public authorities and their officers
- Increased information divulgation to the public
- Major role to be played by NGOs
- Protection for whistleblowers

The 2015 Environmental Protection Law (2015 EPL) states that environmental protection is a fundamental national policy\textsuperscript{133} which will be pursued giving priority to protection, emphasis to prevention and to integrated governance, with major role to be played by the public, in particular by local governments, firms and citizens\textsuperscript{134}.

One of the most important innovation respect the previous version of law is the introduction of a daily-based fine system, which replaces the one-off fine system disposed by the 1989 edition\textsuperscript{135}. Public bodies and related officers, for their part, will be evaluated also for their commitment to environmental protection\textsuperscript{136} and will be punished with destitution and criminal prosecution for their illicit acts and behaviours\textsuperscript{137}. The objective of a more integrated governance, with increased involvement of public actors, is pursued by improved measures on disclosure of monitoring data and environmental quality parameters\textsuperscript{138}, the protection of whistleblowers\textsuperscript{139}, and a major role

\textsuperscript{132} http://www.loc.gov/law/foreign-news/article/china-environmental-protection-law-revised/

\textsuperscript{133} 2015 EPL, Art. 4

\textsuperscript{134} Ibidem, Art. 5 and Art. 6

\textsuperscript{135} Ibidem, Art. 59

\textsuperscript{136} Ibidem, Art. 26

\textsuperscript{137} Ibidem, Art. 68

\textsuperscript{138} Ibidem, art. 53, 54, 55

\textsuperscript{139} Ibidem, art. 57
recognized to registered and well established NGOs, which are allowed to bring legal actions against polluters\textsuperscript{140}.

The effects of the new law were positive during the first year of implementation, under the point of view of both enforcement and results: according to the Ministry of Environmental Protection (MEP) data, reported by Zhang et al. (2016), MEP inspected 1.77 million enterprises, with 191,000 prosecuted firms, shutting down 20,000 of them, and inflicting fines for total 87.5 million USD. According to the same data, in the most important urban industrial districts the air quality sensibly improved, with a reduction of main pollutants by 5 to 28%.

Despite the above described improvements, the current law has been claimed by some observers to still have many shortcomings.

According to Zhang et al. (Ibidem), the 2015 EPL reveals four gaps:
- the scope of the law is overlapped by other laws jurisdiction, like forestry, grassland and water laws, so that there would be conflicts arising amongst 2015 EPL and other provisions;
- same way, the enforcement can be affected by the fragmentation amongst different structures that supervise natural resources, like the MEP, the Ministries of water, of land, of agriculture, etc.;
- although citizens and NGOs are more involved into the integrated governance, they are not fully recognized in their right to environmental quality. This turns into the right for them to bring lawsuits against polluters but not against the public authorities responsible for environmental supervision;
- the local Environmental Protection Bureaus (EPB), which are the local units of the MEP, are financially and politically dependent from the local government, making difficult for the MEP to effectively exert its control on them. This can lead to enforcement shortcomings and conflicts of interest.

\textsuperscript{140} Ibidem, art. 58
### 1.3 Plan and Policies

**Exhibit 2. Environmental Protection Plan 2016-2020 Targets**

<table>
<thead>
<tr>
<th>Environmental protection plan main targets</th>
<th>2015</th>
<th>2020</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental quality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Air quality</td>
<td>76</td>
<td>&gt;80</td>
<td>-</td>
</tr>
<tr>
<td>Air quality rate in prefecture and municipal level ranking as “excellent” and “good” (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction of the concentration of fine particles in municipal and prefecture level (%)</td>
<td>-</td>
<td>-</td>
<td>18</td>
</tr>
<tr>
<td>Reduction of “seriously” (and above) polluted days in municipal and prefecture levels (%)</td>
<td>-</td>
<td>-</td>
<td>25</td>
</tr>
<tr>
<td><strong>2. Water environmental quality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water surface quality ratio reaching Class III or better (%)</td>
<td>66</td>
<td>&gt;70</td>
<td>-</td>
</tr>
<tr>
<td>Class V water surface quality ratio (%)</td>
<td>9.7</td>
<td>&lt;5</td>
<td>-</td>
</tr>
<tr>
<td>Water quality standard rate of important rivers, lakes and water parks (%)</td>
<td>70.8</td>
<td>&gt;80</td>
<td></td>
</tr>
<tr>
<td>Underground water quality ratio (%)</td>
<td>15.7</td>
<td>Around 15</td>
<td>-</td>
</tr>
<tr>
<td><strong>3. Soil environmental quality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pollution free cultivated soil percentage (%)</td>
<td>70.6</td>
<td>Around 90</td>
<td>-</td>
</tr>
<tr>
<td>Pollution free soil usage ratio (%)</td>
<td>-</td>
<td>More than 90</td>
<td>-</td>
</tr>
<tr>
<td>4. Ecological situation</td>
<td>Forest coverage ratio (%)</td>
<td>21.66</td>
<td>23.04</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Forest reserves (hundred million cubic metres)</td>
<td>151</td>
<td>165</td>
<td>14</td>
</tr>
<tr>
<td>Wetland reserves (hundred million hectares)</td>
<td>-</td>
<td>≥8</td>
<td>-</td>
</tr>
<tr>
<td>Grassland comprehensive vegetation coverage (%)</td>
<td>54</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Key ecological county owned functional areas condition index</td>
<td>60.4</td>
<td>&gt; 60.4</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total pollutant emissions</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>5. Reduction of main pollutants emission (%)</th>
<th>COD</th>
<th>-</th>
<th>-</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia Nitrogen</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Sulfar Dioxide</td>
<td>-</td>
<td>-</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Nitrogen Oxide</td>
<td>-</td>
<td>-</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>
Aside from the above examined law provisions, China’s Environmental Protection legal framework is complemented by a series of plans, policies and international agreements, which act as guidelines for further legal development and administrative regulations. The PRC most important and overarching planning provision is the Five-Year Plan (FYP), came to its thirteenth edition in the period (2016-2020). Amongst other facets, the 13th FYP covers many issues relevant to environmental protection.

**Source:** *13th Environmental Protection Five Year Plan*, MEP (translated into English by the author)
The main targets set by the FYP for enhancing the environmental protection are\textsuperscript{141}:

- most stringent policies for the protection of cultivated land and ensure grain safety
- promotion of clean production and low-carbon industries, green finance and the establishment of a green development fund
- inclusion of parameters related to natural resources protection in the appraisal of official performance
- promotion of new energy vehicles and electric cars
- featuring of a nationwide real time online environment monitoring system, mapping all the emission spots
- improving forest protection and reforestation, with the ban of commercial exploitation of forests

The general guidelines indicated by the FYP are then articulated in sectoral specific Five year plans. As for the case of environmental protection, the five year plan titled “13th Environmental Protection Five Year Plan” has been released on 24th November 2016\textsuperscript{142}. It is a 10 Chapters document, setting detailed environmental protection targets to be reached by 2020. The following table (Exhibit 2), extracted from the third section of the second chapter summarizes the main targets and key performance indicators.

The planning action is carried out also at a sub-sectorial level, with the issuance of Action plans. The content of these plans will be analysed in the following paragraphs of this work, when sectorial regulations will be taken into account.

\textsuperscript{141} http://news.xinhuanet.com/english/photo/2015-11/04/c_134783513.htm

\textsuperscript{142} http://www.gov.cn/zhengce/content/2016-12/05/content_5143290.htm
2. CHINA ENVIRONMENTAL PROTECTION SUB-SECTORIAL REGULATIONS

In this paragraph we will take into account the regulations on air, water and soil protection, as the main environmental domain affecting human lives. While air pollution is a largely acknowledged issue, due also to the attention that international media usually devotes to it, water and soil pollution is also extremely important, due to their interconnections and their relevance with regards to other important facets, such as food safety (that we addressed in Paper 3).

2.1 China's air protection and control regulations

2.1.1 Background

China’s air pollution is one of the most visible consequences of the environmental deterioration, due also to its media exposure, that made of it the icon of China’s pollution to the eyes of the international audience. According to WHO (2005) guidelines, smog contains the following chemical elements, that are hazardous for human health: PM (particulate matter), SO2 (sulfur dioxide), NOx (Nitrogen Oxide), O3 (Ozone).

These elements have been monitoring in China since December 2013, revealing frequent failure in meeting the minimum standards for air quality:\(^{143}\): the Report on Environmental Situation in 2016” issued by the MEP reveals that on a total of 338 cities, only 84 were able to not exceed the standards:\(^{144}\). The same report shows how the situation registered some improvements from 2015, with the rate of days defined as “good” increased by 2.1% and fine particulate (PM 2.5) decreased by 9.1%.

The main drivers for air pollution are to be found in industrial activities and excessive reliance on coal for energy production, which makes the 66% of all energy matrix (Padoan, Ibidem).

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\(^{143}\) The standards for air quality will be analysed in a latter stage of this Paragraph

Tracing SO2 and NO2, that are good predictors also for PM, Rohde and Muller (2015) reckon that fossil fuel burning accounts for 30-50% of the air pollution, industrial facilities for 25-35% and transportation fuels for the remaining 15-25%. No definitive research has been done on the impact by air pollution on the economy. The “Action Plan for the prevention and control of air pollution”, about which we are going to discuss later, estimates more than 300 billion euro to be needed for its implementation (Padoan, Ibidem).

Recent areal studies on the impact of air pollution on the economy take into account the effect on the human capital, with estimated impact on GDP ranging from 0,3% to 2,3% in Beijing area and the Delta of Pearl River (Zhao et al, 2016; Lu et al., 2016). The varied situation across country’s areas and the unpredictability of air pollution effect on human health on the long term make more precise and nationwide estimation difficult.

2.1.2 Regulatory Framework for air pollution prevention and control

As we have seen before, air pollution was the topic of one of the earliest environmental measures issued by the authorities of the PRC, with the Decision on Preventing Silica Dust in Mining Companies (1956).

The regulations addressing air pollution were then spread across the general and specific legislative acts issued since late 70s. Amongst them, the most important is the Air Pollution Law, issued in 1988 and revised in 1995 and 2000 (Feng and Liao, 2015). The Air Pollution Law, in its first edition, set a first comprehensive framework for the environmental protection of air, with Environmental Protection Bureaus (EPB) enabled to supervise and punish the firms that exceeded the allowed emission levels (Alford and Liebman, 2001).

The 1995 amendment of the Law tried to adapt its provisions to a radically changing institutional and economic landscape, but it was the third amendment, in 2000, that made the legal framework and the enforcement capability (along with the necessary political willingness) register a relevant progress, even though not completely satis-
factory (Feng and Liao, Ibidem): for the first time, the idea of sustainable development was included. Moreover, vehicles emissions were regulated, by limiting the production and distribution of non-compliant vehicles.

In addition to laws, the legal framework is complemented by administrative rules issued by government bodies, at both national and local levels. A not exhaustive review of the main administrative rules on air prevention and control is shown in the Exhibit 3.

**Exhibit 3.** National administrative rules for air pollution prevention and control

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Type</th>
<th>Effective</th>
<th>Issuing agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regulation on Levy and Use of Pollutant Emission Fees</td>
<td>Administrative regulation</td>
<td>01-07-2003</td>
<td>State Council</td>
</tr>
<tr>
<td>2</td>
<td>Regulation on Management of Ozone Depolluting Substances</td>
<td>Administrative regulation</td>
<td>01-06-2010</td>
<td>State Council</td>
</tr>
<tr>
<td>3</td>
<td>Rules on Supervision and Management of Automobile Exhaust Pollution</td>
<td>Departmental rules</td>
<td>15-08-1990</td>
<td>MEP, Ministry of Public Security, National Import and Export Commodity Inspection Bureau, and Ministry of Communications</td>
</tr>
<tr>
<td>6</td>
<td>Ambient Air Quality Standards</td>
<td>Departmental rules</td>
<td>01-01-2016</td>
<td>MEP</td>
</tr>
</tbody>
</table>

**Source:** Feng and Liao (2015)

As we have seen before, planning provisions play a relevant role in complementing the legal framework. The above quoted “13th Environmental Protection Five Year Plan”, enacted by the MEP, addresses air quality issues in its Fourth Chapter, Section One. The sectorial plan, in line with the broader statements of the National 13th Five Year Plan, sets a number of priorities that provincial government must put in their agenda, such as the analysis of the air quality situation at the province level, promoting joint and cross-areal coordination, the improvement of warning mechanisms and pre-planning systems, the control of total coal consumption targeted to its reduction by 5-10% within the plan timeframe, the disposal of obsolete vehicles and agriculture machineries and their replacement by cleaner energy fueled vehicles, and the supervision of dust in construction areas.

The same chapter refers to the “Action Plan for the prevention and control of atmospheric pollution” issued on 2013 by the State Council, a ten-chapter document which
establish the following priorities:

- Improve the supervision and reduce the emission of pollutants
- Promote the reshaping of the Industry Landscape
- Promoting the technology innovation, with particular reference to clean production and circular economy
- Regulate the energy matrix, reducing the coal consumption reliance, benefiting the clean energy
- Improve market-based mechanisms for environment management, with reference to fine system, tariffs and green finance
- Improve the regulations and their enforcement
- Improve the cross-areal coordination
- Promote and encourage pluralism in environmental management

2.1.3 Air Quality Standards

Amongst the most important administrative rules quality standards ranks at the top for their importance. In relation to air quality standards, the most important are the GB3095-2012 (air quality standards) and the GB16279-1996 (comprehensive atmospheric pollutant discharge standards).

The first one is particularly important, as it sets, on the basis of the grid provided by WHO (2005), a classification of the air quality, although the threshold levels are less restrictive. It offers a weighted air quality indicator (AQI), which classifies the air quality into five classes: “excellent”, “good”, “lightly polluted”, “medium polluted”, “heavily polluted”, “hazardously polluted”. The standard, issued in its last edition in 2012, has been gradually applied on a national level, on a timeframe of five year (nationwide application started in 2016).

For each industrial sector, specific emission standards have been issued (Padoan, 2016:57).
2.2 China’s soil and water environmental protection regulations

2.2.1 Background

A national survey issued by the Ministry of Environment and the Ministry of Land and Resources in 2014\(^{145}\) unrolled for the first time data concerning the environmental condition of soils in China, collected between 2005 and 2013. The survey found that 16.1% of surveyed points exceeded limits, with the 19.4% arable surface, 10% of grazing lands and 10% of woods contaminated beyond any tolerable limit.

The main pollutants are inorganic (83% of the total) and list the following contaminants: cadmium, mercury, arsenic, copper, lead, chromium, zinc, nickel. Organic contaminants rank second (16% of the total) and list BHC, DDT and PAHs. The most polluted areas are in proximity of the most industrialized areas, like the North-east, the Yangtze River Delta and the Pearl River Delta. High levels of pollution have been found also next to the south-west and central-southern mining industries areas.

In 2015, according to the China’s Statistical Yearbook (2016)\(^{146}\), China’s surface and underground hydric resources amounted respectively to 2690.1 and 779.7 billion mc.; the same Statistical Yearbook, indicates that 73.5 billion tons of pollutant where discharged in waters during the same year\(^{147}\).

The Report on the Environmental Conditions (中国环境状态报告, 2015)\(^{148}\) issued by the MEP, highlights that 35.1% surface waters suffer bad environmental conditions (with 8.8% of total surface water classified as extremely polluted), while the polluted groundwater amounts up to 66.2% of its total (with 23% of total groundwater classified as extremely polluted). As for surface waters, the most critical area is the Haihe river basin, located around Beijing, with more than 39% of waters classified as extremely polluted. Nevertheless, due to other factors, like the flow rate of each rivers and


\(^{146}\) http://www.stats.gov.cn/tjsj/ndsj/2016/indexeh.htm

\(^{147}\) The monitored pollutants are listed as follows: COD, Ammonia Nitrogen, Nitrogen, Phosphorus, Petroleum, Volatile Phenol, Lead, Mercury, Cadmium, Hexavalent Chromium, Chromium, Arsenic

the diverse impact of water treatment procedures, the emission of pollutants to the sea describes a different pattern, with the East China Sea (in front of Shanghai and Zhejiang province) suffering the highest rate of pollutant emissions, with more than 46% of discharged waters classified as extremely pollutant.

2.2.2 Regulatory framework for soil and water environmental protection

A comprehensive regulatory framework for soil environmental protection is still yet to be released, with a dedicated law (Soil Environmental Protection Law) and Provisional Rules for the Environmental Management of Contaminated Sites still pending for approval at the time this paper is being written.

The current legal framework is at the moment represented by the measures on soil which are included into wider or other specific regulatory tools and planning provisions.

Aside for broader and constitutional provisions, the most specific regulatory act which addressed the soil environmental protection was the Circular on Prevention and Control of Environmental Pollution During Enterprise Relocation (Brombal et al., 2015), issued in 2004, which provided that: 1. environmental monitoring and assessment have to be carried out when changing land use; 2. on the basis of such an assessment, soil should be repaired where needed; 3. enterprises formerly occupying the land are accountable for soil contamination, even after its relocation (SEPA, 2004).

While a Soil Environmental Protection Law has been drafted in 2014 but its content is still not disclosed to the public, in December 2009 the Ministry of Environmental Protection issued a draft document for discussion titled Provisional Rules for the Environmental Management of Contaminated Sites[149]. These provisions, which are still being discussing amongst the authority stakeholders concerned with soil protection, and for that have a low enforcement capability, offer definitions and a framework for liability and management of polluted soil. More generally, it remarks a conceptual shift from a “reactive” to a “risk management” and prevention approach, with regards to contaminated soil management (Qin, 2014).

Amongst the planning measures which affect the environmental protection of soils, the most important is by all means the “Action Plan for the prevention and the control of soil pollution”, issued in 2016 by the State Council with the aim to define the administrative and strategical framework for the issue and priority actions to be carried out by 2020 (Padoan, 2016). Liabilities are defined in line with the general framework provided by the national legislation (polluters pay and public officers is responsible for ) and emphasis is given to both prevention and reparation. The plan has as its major targets to achieve by 2020 the compliancy with national safety standards of the 90% of agricultural lands and currently contaminated sites. The same targets are set to a threshold of 95% by 2030.

Water pollution is specifically addressed by the Water Pollution Law (1984, revised in 1996 and 2008) and the resource-based Water Law (1988, revised in 2002). Both the set regulations introduced for the first time in China some of the provisions which were then adopted by other pieces of legislation (IGES, 2009). The Water Pollution Law introduced for the first time instruments like pollution levies, the environmental impact assessment, discharge reporting and inspections systems, which were then adopted also by the Air Pollution Law and, more generally, by the further revisions of the Environmental Protection Laws. In 2002, the revision of the Water Law introduced for the first time the information disclosure, which has been developed and extended, on a broader basis, by subsequent acts, especially -as we have seen before- by the 2015 Environmental Protection Law.

As for the planning side, on 2nd April 2015, the State Council issued the Action Plan for the Prevention of Water Pollution. The plan sets a series of targets to be reached by 2020, such as a strong reduction of waters classified as “extremely polluted” (key river basins surface quality water will have to reach a total of 70%) and the implementation of a stricter control on the groundwater pollution and waste. The targets will be reached by means of more severe preventions and control provisions, proactive promotion and support of technology, market regulatory mechanisms and enforcement capability enhancement (Padoan, 2016).
2.2.3 Soil and water environmental quality standards

The main standard on soil quality is the GB1518-1995, which is currently under revision (Brombal et al., Ibidem). The standard sets the limit for pollutants in soils, which are classified into three different classes: Class I (uncontaminated lands); Class II (agricultural lands); Class III (higher capacity adsorbing soils).


Amongst the main mater quality standards are divided into Surface Water Standards (GB3838-2002), Marine Waters Standards (GB3097-1997), Groundwater Standards (GB/T14848-93), which set water quality class levels and related pollutant thresholds. Further water standards are: emission limits for wastewater (GB 8978-1996 and GB18918-2002), emission limits for the leather and textile processing sector (GB30486-2013 and GB4287-2012).

3. IMPLICATIONS FOR FOREIGN BUSINESSES

The evolution of the environmental protection regulatory framework presents enormous implications for foreign business whereas it opens new market opportunities on the one hand and new restrictions to economic activity on the other hand. In this paragraph we will analyze both these facets, underlining the opportunities for foreign businesses approaching the green market in China, as well as the challenges that foreign businesses are likely to face on the side of their supply chain, as a consequence of the stricter environmental rules on the commodity market.

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150 A complete list of standards is available at: http://kjs.mep.gov.cn/hjbb/bzwb/trhj/
3.1 The Green Market

Along with greater attention on environmental protection and developing regulatory framework, the green market in China is growing fast and big opportunities are attracting foreign companies, which can leverage their advanced know-how and technical capability as their competitive advantage.

The Green Market, which of course is highly structured in diverse sub-sectors, can be segmented into two bigger segments. On the one hand, machineries and devices, on the other hand, plants and systems (CESIF, 2016).

As for the first segment, the target customers are those industries that are now forced by the new regulations to monitor their emissions. The business model in this case is a traditional B2B model, where the foreign firm sells its product to the Chinese customer. The second segment, instead, is represented by public administrations, industry networks that share the common need to develop centralized monitoring and processing systems. Characterized by a more complex architecture, foreign firms can find their opportunities by joining public-private partnerships, by transferring their technology or know-how.

The green market, since the 12th five year development plan (2012-2016), which firstly placed environment protection at its core, is developing fast and its aggregate size is huge, with a forecast investment of 9.4 trillion CNY (1700 billion USD) for the implementation of the sectorial action plans (with 61% devoted to soil protection, 21% to water protection and 18% to air pollution control)\(^{151}\). Nevertheless, the green market, as its start up is relatively recent, can hardly be said as mature. Industries and public administrations are only recently acquiring the needed technical knowledge and understanding, with low problem solving capability (Padoan, 2016).

Such situation is limiting the access to the market for SMEs, which are often highly specialized in a small range of products/services and lack of the financial capacity to bear the risk of a immature market, where the average customers are often not able to fully understand the technical contents of their proposals and where the time frame for technology transfer is not certain (CESIF, 2016).

In fact, while exporting machineries and devices needs to obtain local certifications, entering in public-private partnership needs the set up of local representative offices or of a commercial branch. Both of these barrier need for investment and costs to be overcome, with uncertain return, on an uncertain time frame.

### 3.2 Public-Private Partnership (PPP) reform

Due to local government public debt alarming levels, which reached the 37.5% of national GDP in 2014, averagely accounting for 300% local fiscal revenue\(^{152}\). This situation is clearly unbearable in the long run, considering the economic growth rate slowdown. In order to find a solution, the Chinese government is trying to organize the funding of infrastructure and utilities projects on a more market-oriented way, with increased involvement of private ventures. To this end, in 2015 the NRDC issued the Public Concessions Reform.

The Reform brings relevant innovation to the relationship between public and private partners; the most important is that public government are no more allowed to guarantee a fix return from the investment, with the entrepreneurial risk being transferred to the privates, who are granted with the permission to set their tariff scheme to the end user, in accordance with their business model (Padoan, 2016).

The Reform applies to five sectors: energy, transportations, hydric resources, environmental protection, urban public works. For the first time, the regulation defines the nature of the concession, which is granted by means of a written agreement to be signed between the public administration and the concessionaire, with clear indications about the execution, performance assessment, modifications and resolution of the agreement: notably, the art. 18 highlights the mandatory clauses to be included into the agreement, while the art. 36 dispose that in case of any government regulatory measure or policy that would affect the business model with consequent loss to the forecast revenue the public administration is required to compensate the concessionaire.

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The 6th Chapter of the law describe the dispute settlement methods, with the possibility for the concessionaire to negotiate, mediate or proceed against the administration through an administrative controversy (行政诉讼), which is a particular dispute settlement method employed in China when the controversy involves a state organ. It is important, however, to note that no civil litigations are possible according to the present framework (Padoan, 2016). This highlights, again, a persisting asymmetry between the state and the private, in the line with the above described “responsive authoritarianism” which characterizes the state-society relations in China.

3.3 Operational Issues

Increasing attention to environmental protection is opening enormous opportunities for foreign companies.

As mentioned before, exporting environmental protection and monitoring devices and machineries requires local certification, so that an episodic approach to the market is quite uncommon. As for the chance to take part to PPP projects, the foreign company which wish to operate in China in such a framework is required first to register as a Wholly foreign owned enterprise (WFOE) or a Foreign Invested Commercial Enterprise (FICE), then obtain the relevant qualifications and certifications in relation to the scope.

The art. 3 of the PPP Regulation allows foreign companies to join PPP projects. Moreover, either the foreign company wishes to enter a PPP project or manufacture/distributes its goods, it should be aware of the possible restrictions that the government might advance against the registration of foreign invested companies in selected sectors. The Investment Catalogue, issued by the Ministry of Finance and Commerce (MOFCOM) and come to its newest edition in 2017, expressly identifies sectors in which foreign investment are restricted, limited, allowed and encouraged. Even thou-
gh the historical trend is towards relaxation of restrictions, with the recent introduction of a “negative list approach”\(^{153}\), many sectors are still restricted\(^{154}\).

However, it should be noted that many difficulties could arise after the registration, in matters like land acquisition, machinery and devices importation, fiscal issues, ad so on. For this reason, it is always suggested to selected a local partner, in order to reduce the risk and the operational costs that operating in a complex context like China might bring. In such a case, the right corporate profile would be a sino-foreign joint venture (JV). According to the Company Law of China (1993, last revision in 2014), JVs can be both contractual JV (CJV) and Equity JV (EJV); EJV are more common, as they are legal entity, while CJV do not enjoy this status. As far as the participation to PPP projects is concerned, as the concessionaire have to sign a written concessionary agreement with a public administration, it goes without saying that it cannot be a CJV.

Aside from market opportunities opened by the new environmental regulatory framework, there are other wider and indirect implications for foreign companies operating in China. Stricter environmental surveillance is heavily impacting the country industrial landscape, markedly in the low-value added sectors.

For instance, metalworking raw material prices have increased by an average rate of 115% from January 2016 to September 2017\(^{155}\). In plastics sector the situation is even more serious, with companies claiming for critical raw material shortage\(^{156}\).

The trend is not likely to come to an end, with the ministry of environment that is intensifying the control over polluting firms, forcing them to comply with the new standards or close their business\(^{157}\). Apart from sounding as a direct confirm of the com-

\(^{153}\) the “negative list approach”, in contrast with the past “positive list approach”, implies that any sector which is not pointed to be limited or restricted is allowed.


\(^{155}\) historical data extracted from custeel.com

\(^{156}\) http://www.zgswcn.com/xazx/18687150.html

\(^{157}\) https://news.smm.cn/news/100753994
mitment by the Chinese government in enforcing the new environmental measures, this trend, if will be confirmed in the future, is likely to reshape the whole industrial landscape in China, with serious implications for the supply chain management for firms manufacturing and sourcing in China, which can be then pushed to recalibrate their strategy or delocalize their low-value added activities elsewhere.

4. CONCLUSIONS

Environmental protection is one of the key strategic points of the transition towards the New Normal for China. A better quality environment is seen as not only the premise, but also the result of the general shift towards a sustainable economic, institutional and social development model. On the one hand, along with the economic growth by a larger share of the population, people are asking for better quality of life, with growing awareness about environmental issues, which reflects their increased - although still limited- involvement into the governance as stakeholders. On the other hand, a more sustainable development model should move away from low-value added, investment intensive and high pollutant industrial patterns, developing high-value added industries and service reliant economy, with lower impact on the environment. While the environmental situation of air, soil and water is alarming, the commitment shown the government by means of legal development, regulatory reform and enforcement effort appears to be genuine and effective, even though there is a long way to run. In this challenge, foreign companies are called to play a major role, leveraging their advanced technologies, know-how and technical capabilities. The market opportunities are by all means enormous but barriers and obstacles are very challenging, above all with reference to small and medium enterprise, because of the high level of risk and complexity that entering an immature market like China implies. Environmental protection reform, moreover, is likely to affect also those firms which do not directly operate in the green market, because of the cross-cutting and massive effects that stricter environmental measures can bring into their operations and supply chain management.
REFERENCES


Lu et al. (2016). Estimation of health and economic costs of air pollution over the Pearl River Delta region in China.. Science of The Total Environment,, 134-143.


van Rooij et al. (2016). The authoritarian logic of regulatory pluralism: Understanding China’s new environmental actors. Regulation & Governance n. 10: 3-13.


Zhao et al. (2016). Economic evaluation of health losses from air pollution in Beijing, China.. Environmental Science and Pollution Research, 23(12), 11716-11728.


CONCLUSIONS

The transition to New Normal, as a shift to a quality-based, socially balanced and sustainable development model, is not a simple and clear-cut convergence to western advanced economy models.

As we have seen across the present work, China’s reform path was characterized by the effort to modernize the economical and institutional landscape, gleaning of course from international best practices, but always relying on a pragmatic approach. The commitment to comply with the international rules and standards -commitment that had in the accession to WTO its cornerstone- has always been counterbalanced by developmental purposes, in line with the “confucian” or “developmental state” tradition (see Paper 1).

Harmonization and integration within the international system has always been compensated and mitigated by the “sinization” of the institutional and juridical arrangements brought in from outside, just like the case of the standard harmonization highlights (Paper 3).

Juridical, institutional and political peculiarities that keep marking a difference with the “rest of the world” and that are often the object of dispute with the international community, like the case of the quarrel on the market economy status (see Paper 1), can be then seen simply as hard-to-dismantle vestigial legacies, sooner or later destined to be swept away by the modernization.

They should be rather framed as dynamic elements revealing a path dependency pattern in a transition that is more incremental and evolutive than transformative. The ancient debate between gradualism and shock-therapy is then passed, with reference to China, as China’s transition have being with any doubt “gradual” with outcomes that can at least empirically appraised after four decades of reform, redefining the question as follows: where is China’s transition at the stage of New Normal actually leading to?
China’s cultural background is too deeply entangled with its institutional and political system to hypothesize a break into the orthogenetic development pattern that characterized its five thousand year history, while its growing economical and political weight is too relevant within the international system to not take into account the retroaction that China’s integration might bring to the international system itself, just like the huge and growing amount of state-led outward FDI clearly shows (Paper 2).

China’s transition to New Normal more than the consecration of China in the age of globalization appears thus as the attempt by the Chinese government to find a way for a “globalization with Chinese characteristics”, where increased international interdependence coexists with an internal-consumption based economy, a vigorous private sector develops along with the unquestioned leading role of the party-state and a more transparent and foreign-friendly business environment is counterbalanced by persisting -and not residual- protectionist policies.

The implications for foreign businesses operating in China are massive.

The explicit aim of the transition to New Normal is the shift towards a quality growth development model, where sustainability and inclusiveness are both the premises and the objectives. The raising of a middle-class as the economic and social engine for growth is the most attractive promise for foreign businesses investing in China: it would mean a 600 million people middle class demanding for quality goods and services.

Fast legal development, while improving the business environment, implies the need for a deeper understanding of regulations, in a fast changing regulatory environment, which often lacks of transparency and suffers from bureaucratic arbitrariness, just like the case of stricter import regulations introduced by the new food safety reform shows (see Paper 3). Stricter environmental regulations, new public welfare, increased average income, while opening new market opportunities for high-tech foreign enterprises (see Papers 2 and 3), will be likely to dismiss the “world factory” model, which had in low operational costs its competitive advantage.
This will of course impact the supply chain of foreign companies which manufacture and source in China.

More generally, understanding the nature of China transition to New Normal as a China-peculiar process is a fundamental theoretical premise for businesses to draft development plans, whereas they are required to be long-termed and as much as possible finely tuned with the country development trajectory, as traced by the reforms and planning.

Due to the extensive impact that China nowadays has on the international economy, such a need probably applies also to businesses which do not intend to directly operate in the country in the near future. After all, the changes that are occurring in the country and the ways by which the government is trying to actively address them are probably destined to shape not only the “New Normal” of China, but -to some extent- of the World as a whole.