

VYSOKÁ ŠKOLA EKONOMICKÁ V PRAZE
FAKULTA NÁRODOHOSPODÁŘSKÁ



**The Development of Special Economic Zones in
People's Republic of China Since 2001**

Diploma Thesis

Author: Sylvia Rejnartová

Thesis Supervisor: PhDr. Ing. Aleš Skřivan, Ph. D.

Year: 2015

Affidavit:

I declare on my honor that I wrote diploma thesis on my own with the given sources.

In Prague, 5. 5. 2015

Ing., M.A. Sylvia Rejnartová

Acknowledgments

I want to thank the supervisor of diploma thesis PhDr. Ing. Aleš Skřivan, Ph. D. for his valuable advices and his helpful suggestions.

Abstract

The aim of diploma thesis is to analyze the development of Special Economic Zones (SEZ) in People's Republic of China (PRC) since 2001. There are analyzed theoretical approaches and development of SEZs as well as the broader context of China's Reform Policy and accession to the WTO in 2001. The emphasis is placed on comparison of economic development of each SEZ based on GDP growth, GDP per capita growth, FDI inflow and export volume. Then there is employed model to answer the question whether the contribution to GDP growth of chosen three SEZs is positive or negative after 2001. The thesis concludes that the SEZs comparative advantages have been fading away in the examined period.

Abstrakt

Cílem diplomové práce je analyzovat vývoj speciálních ekonomických zón (SEZ) v Čínské Lidové Republice po roce 2001. V práci jsou analyzovány teoretické přístupy a vývoj SEZ stejně jako širší kontext reformních snah ČLR a její vstoupení do WTO v roce 2001. Důraz je kladen na srovnání ekonomického vývoje jednotlivých zón na základě růstu HDP, HDP/obyv., přímých zahraničních investic a objemu vývozu. Dále je v práci využit model k odpovězení otázky, zda je příspěvek vybraných tří SEZ na HDP pozitivní nebo negativní. Práce shrnuje, že komparativní výhody SEZ se postupně vytrácejí ve sledovaném období.

Key words: Special Economic Zones, People's Republic of China, Open Door Policy, Foreign Direct Investment

JEL klasifikace: F430, N150, P330

Contents

Abstract	4
Abstrakt	4
Table Contents	8
Graph Contents	8
List of Abbreviations	9
Introduction	10
1. Special Economic Zones	14
1.1. SEZ Definition and Objectives	16
1.2. Reform Policy and Opening-Up	18
1.3. Four Modernizations	19
1.4. China's Accession to The WTO	21
1.5. The Reasons For Establishment of Zones With Preferential Policies	24
1.6. Forms of Special Economic Zones	26
Table 1. Types of Different Zones With Preferential Policies	26
Table 2. Zones in PRC	28
1.7. Theoretical Approaches	29
1.7.1. Neo-classical Approach	29
1.7.2. Growth Poles and Growth-Axes Models	30
1.7.3. New Growth Theory	31
1.7.4. The Global Value Chain	32
1.8. The Legislative Process and Incentives in the SEZs	33
2. Development of Chinese Special Economic Zones	36
2.1. The phases of the SEZs development	36
Illustration 1. Map of SEZs	37
2.1. The Shenzhen Economic Zone	40
2.1.2. Shenzhen Preferential Policy	41
2.1.3. Shenzhen Development since 2001	41
2.2. The Zhuhai Special Economic Zone	43
2.3. The Shantou Special Economic Zone	44
2.4. The Xiamen Special Economic Zone	45
2.4.1. Xiamen Challenge and Future Development	47
2.5. The Hainan Special Economic Zone	48
2.5.1. The Preferential Policies	49

2.6.	The Kashgar Special Economic Zone	50
3.	A Comparison of SEZs and Analysis of China's Development	52
3.1.	The Cost-Benefit Analysis of the SEZs	52
	Table 3. Achievements and Starting Position of SEZs.....	53
3.2.	SEZs Initial Position.....	54
	Table 4. Initial land, population (1987, 2013)	54
	Table 5. The Unemployment Rate (2013) and Monthly Average Wage	55
3.3.	GDP.....	55
3.3.1.	China's GDP Growth	55
	Graph 1. China Annual GDP Growth (%)	56
	Graph 2. GDP Composition (1978-2012)	57
3.3.2.	SEZs GDP Growth.....	58
	Graph 3. GDP and GDP per capita of SEZs.....	58
	Table 6. GDP Sector Composition.....	60
3.4.	FDI.....	60
3.4.1.	China's Trade Openness	62
	Graph 4. Trade to GDP (%)	63
3.4.2.	SEZs FDI Inflow	64
	Graph 5. SEZs FDI Inflow and Export Growth.....	64
3.5.	SEZs Exports and China's Foreign Trade.....	67
3.5.1.	China's Foreign Trade	67
	Graph 6. Foreign Trade (1980-2013, mil. of \$).....	68
	Graph 7. FDI Inflow (1985-2013, ths. of \$)	68
3.5.2.	SEZs Export	69
4.	Model	71
4.1.	Data description	71
	Table 7. Data Description	72
4.2.	Methodology and model.....	73
	Table 8. Correlation of coefficients	73
	Table 9. F-statistics, R-squared values.....	74
4.3.	Results	74
	Table 10. Results of Model.....	74
	Graph 8. Real GDP Growth of SEZs vs. Other 33 Cities	76
	Graph 9. Average Growth of GDP without Hainan.....	76

Conclusions.....	78
Table 11. Ranking SEZs in China Comparison	80
Resources	83
Bibliography.....	83
Online Sources and Databases	87
Appendix.....	91
Table 1. Data Description	91
Table 2. Correlation of coefficients	91
Table 3. Results of Model	91

Table Contents

Table 1. Types of Different Zones With Preferential Policies	26
Table 2. Zones in PRC	28
Table 3. Achievements and Starting Position of SEZs	53
Table 4. Initial land, population (1987, 2013)	54
Table 5. The Unemployment Rate (2013) and Monthly Average Wage	55
Table 6. GDP Sector Composition	60
Table 7. Data Description	72
Table 8. Correlation of coefficients	73
Table 9. F-statistics, R-squared values	74
Table 10. Results of Model	74
Table 11. Ranking SEZs in China Comparison	80

Graph Contents

Graph 1. China Annual GDP Growth (%)	56
Graph 2. GDP Composition (1978-2012)	57
Graph 3. GDP and GDP per capita of SEZs	58
Graph 4. Trade to GDP (%)	63
Graph 5. SEZs FDI Inflow and Export Growth	64
Graph 6. Foreign Trade (1980-2013, mil. of \$)	68
Graph 7. FDI Inflow (1985-2013, ths. of \$)	68
Graph 8. Real GDP Growth of SEZs vs. Other 33 Cities	76
Graph 9. Average Growth of GDP without Hainan	76

List of Abbreviations

B	Billion
EPZ	Export Processing Zones
EZ	Enterprise Zone
FDI	Foreign Direct Investment
FOE	Foreign-owned Enterprises
FP	Free Port
FTZ	Free Trade Zone
GDP	Gross Domestic Product
GDPpc	Gross Domestic Product Per Capita
IMF	International Monetary Fund
OECD	Organisation For Economic Cooperation And Development
OFDI	Outward Foreign Direct Investment
PP	Percentage Points
PRC	People's Republic of China
RMB	Renminbi (Chinese Yuan)
SEZ	Special Economic Zone
SF	Single Factory
UN	United Nation
WTO	World Trade Organization

Introduction

People's Republic of China (PRC) has performed remarkable economic growth and development in last 37 years. At the beginning of the reform period 1978, there was a general pessimism about future Chinese development, while nowadays one can speak about a fear of a superpower.

China has successfully transformed from a centrally planned closed economy into a widely open fast growing economy with an increasing share of private sector. According to the International Monetary Fund, China has become the world's largest economy measured in purchasing power parity (PPP). In PPP terms, the worth of Chinese economy reached \$17.6 trillion, while the US economy has slightly lower value of \$17.4 trillion. IMF continues with the prediction of China's economy worth in 2019 to be \$27 trillion.¹ According to the Forbes, China also has overtook the US measured by the volume of international trade which was \$4 trillion in 2013.²

Nevertheless, many economists agree that China's primacy measured by PPP does not imply anything. As Ben Carter (2014) argues for BBC News; *"Without the PPP adjustment, the IMF estimates that China's economy is worth far less - \$10.3tn. ... if you look at per capita spending power - the value of all goods and services produced within a nation in a given year divided by the average population for the same year - then, even adjusted for PPP, China (\$11,868) is still lagging a long way behind not only the United States (\$53,001) but also the likes of Turkmenistan (\$12,863) and Suriname (\$16,080). So how easy is it to accurately measure the size of the Chinese economy or even just parts of it?"*³

Regardless of the considerable criticism of the economic growth, the Chinese economy grew remarkably since the 2001. Recently, the growth has been driven by consumption rather than by investment. Living standards have been increasing rapidly and are expected continue to do so. China wants to focus more on qualitative changes. China's recent strategy based on its 12th Five-Year Plan (2011-2015) has focused mainly on five areas that

¹ BIRD, MIL., *China Just Overtook The US As The World's Largest Economy*, Business Insider, 8-10-2014, [accessed: 09-11-2014], available on: <http://www.businessinsider.com/china-overtakes-us-as-worlds-largest-economy-2014-10#ixzz3TtlkhAic>

² CHANG, G., *Is China Really World's No. 1 Trader?*, Forbes, 12-01-2014, [accessed: 09-11-2014], available on <http://www.forbes.com/sites/gordonchang/2014/01/12/is-china-really-the-worlds-no-1-trader/>.

³ CARTER, B., (2014), *Is China's economy really the largest in the world?*, BBC NEWS, 16-12-2014, [accessed: 09-11-2014], available on: <http://www.bbc.com/news/milagazine-30483762>

are to be reformed. In financial sector, the restraints on capital flows are being relaxed allowing the renminbi to be used abroad as well. The second area of focus is competition and innovations, in which CPC Congress defined sectors in which state-ownership is to be lessened. Next, R&D investment are to be directed into the fundamental research and the property rights of innovations are to be strengthened. The third reform is urbanization. More and more people are expected to migrate to higher-income coastal cities which will further enhance the growth but also bring problems associated with land for the next expansion. Migrants should be granted the same rights as urban residents, especially in education and health care. The fourth point of interest are relations between levels of government. China wants to improve well-being of a whole country thus to increase more transfers to lower-level governments. The latest area is greening growth which is a big issue not just for China but also for the rest of the world. The biggest challenges are air and water quality and better enforcement of regulations. OECD recommends better targeting of investment in renewable energy and higher taxes for gasoline and pollution.⁴

According to the UNCTAD, which examined economic dynamism in emerging market economies over 30 years, China has contributed greatly to the development of other countries.

The UNCTAD (2011) concluded that: "... growth dynamics in China had positive effects on many developed and developing countries that benefit from rising exports to China and other emerging market economies. However, these developments did not fundamentally change the interdependence of markets and policies. ... Third, China's increasing participation in international trade posed new challenges for many countries, since it could contribute to a fall in the export prices of the types of manufactures that it produced and exported along with other developing countries. Fourth, even if continuing growth in China and other large emerging market economies was likely to sustain the demand for primary commodities, the basic problem of instability in those prices remained unresolved."⁵

The development of special economic zones in China represented a major step on its transformation from planned into market economy. The SEZs serve as a testing ground for the experiments with the market environment which was before the reforms almost unknown. To understand why some of the SEZs become successful, while others did not meet their goals is

⁴ OECD, 2013, Economic Surveys CHINA 2013, OECD Publishing, March 2013, ISBN 978-92-64-18259-2

⁵ UNCTAD (UNITED NATIONS TRADE AND DEVELOPMENT REPORT), 1981-2011, UNITED NATIONS New York and Geneva, 2012, Sales No. E.12.II.D.5, p. 7, eISBN 978-92-1-055398-8

crucial for many countries. Nowadays, there are more and more new SEZs in Africa that hope to achieve somewhat similar success as the Chinese SEZs and thus find a new way how to deal with the poverty and transform into a market economy.

The aim of the thesis is to analyze the macroeconomic development of Special Economic Zones (SEZ) in People's Republic of China (PRC) since 2001. The marginal goals are to describe Chinese SEZs theoretically and set out their development in historical context. Then, to compare their economic growth and development. And last, to compare their contribution to GDP with other selected zone-based cities to evaluate their importance and effectiveness. The hypothesis is that SEZs contribute greatly to overall GDP of observed cities and represent an important engine of growth.

The first chapter provides a general and theoretical framework for SEZs. First, there are described several SEZs definitions and reasons for their establishment. Then, there is described Open-Up policy which enables the foundation of SEZs and China's accession to the WTO in 2001. Then, there are introduced theoretical approaches to SEZs and legislative process of SEZ founding laws and incentives provided.

The second chapter deals with development phases of zones with preferential policies in China. Then, there is described the development of six SEZs, namely, Shenzhen, Zhuhai, Shantou, Xiamen, Hainan and Kashgar. There are analyzed some of the challenges that SEZs have been facing in the new millennium.

The third chapter compares development of five initial SEZs. First, there is cost-benefit analysis. Then, the comparison is structured by GDP growth, FDI inflow and volume of Exports. Each of these parts starts with an analysis of China's development according the same structure. Thus, it is possible to understand SEZs from a broader perspective.

The last chapter employs model by using fixed effects method. The aim of the model is to assess contribution of three SEZs on GDP pc growth of other 33 Chinese cities chosen by the State Plan. These cities represent the most developed China's cities so there can be seen how SEZs stay in a comparison to them and answer the question whether their contribution is still so high after 2003.

For the analytical and comparative parts, there were used mostly the World Bank and China Statistical Bureau databases. Although, there is poor availability of data for all SEZs

and employed methodology of the Chinese Statistical Bureau varies often, the data had to be modified or imputed.

The main source of information was found in scholarly papers and online websites of each of the SEZs. Vast majority of scholarly studies focus on the historical development of SEZs in the 1980s and 1990s. There was a big problem to find enough valuable sources for the development after 2001. The greatest share of studies is devoted to the Shenzhen SEZ and then much less to the Hainan SEZs. However, there is very limited amount of literature for the Xiamen, Zhuhai and Shantou SEZs. Many authors confuse SEZs with New Areas which are in Pudong and Tianjin and there are also quite a few inaccuracies in results and data of SEZs.

For the theoretical and descriptive part the most useful papers were the following: Gokhan and James (2008) - *"Special Economic Zone: Performance, Lessons Learned, Implication to the Zone Development"*, Zhu and Khan (1997) - *"Why Is China Growing So Fast?"* and Farole (2011) - *"Special Economic Zones: What Have We Learned?"*. To analyze the reasons and impacts or forms of zones in general and SEZs in particular were mainly used these sources: Zeng (2011) - *"How Do Special Economic Zones and Industrial Clusters Drive China's Rapid Development?"* and Aggarwal (2010) - *"Economic Impacts of SEZs: Theoretical Approaches and Analysis of Newly Notified SEZs in India"*.

For analyzing the Shenzhen SEZs was used mostly scholar paper by Hao (1996) - *"Development of The Shenzhen Economic Zone"* and for the description of the establishment of the Hainan SEZs paper by Roll (1991) - *"A Comparison of Hainan with the Other Special Economic Zones"*. For the other SEZs there were used various source yet none of them was found sufficient or comprehensive. For the legislation and preferential policies used in SEZs were mostly employed Regulations On Special Economic Zones In Guangdong Province.

1. Special Economic Zones

China has transformed from a closed country into a open up world's leading economy within a few decades. In the opening up process, the setting up of special economic zones, opening of coastal cities, areas around main rivers, inland and cross-border areas have contributed greatly to the liberalization process. On the one hand, there is a large evidence of special economic zones success, while on the other hand, some argue that the expansion and development of special zones was enabled only at the expanse of rest of the country. While, it is relatively easier to assess the zone's direct economic contributions on GDP, employment and FDI or high tech industry, the indirect consequences may not be so apparent.

It is not possible to evaluate what would happened if the whole China would be opened to outside world faster. In the case of abrupt opening, there might have been social pressures and lack of the experience with the market economy could have harmed the transformation. Nevertheless, China became an active supporter of economic globalization and regional cooperation. China wants to focus on self-sustainability of its development since it has resources and the population represents big potential for domestic demand.

Nevertheless, the Chinese SEZs contributed greatly to the domestic development. The zones successfully experimented with new policies and brought the knowledge and experience to the rest of the country. Altogether with other kinds of open zones and clusters, the SEZ succoured to China's economic growth. The SEZs also established new institutional and legal frameworks in the country.

The special economic zones represent an important mediator for China's foreign trade, development of R&D and boost for GDP. Therefore, China wants to continue its opening up reforms as the Office of the State Council in Beijing (2011)⁶ stated: *"China will continue to pursue the basic state policy of opening up to the outside world and the opening-up strategy of mutual benefit. ... We will speed up the way of conducting foreign trade and continue to actively participate in international division of labor. We will move away from focusing on increasing volume of trade only to improving the quality and efficiency of trade, and raise the overall competitiveness of China's foreign trade instead of relying on low cost production. ..."*

⁶ China's Peaceful Development [online], 2011/09/06. Information Office of the State Council, The People's Republic of China, September 2011, Beijing, [accessed: 04/03/2015], available: <http://www.china-embassy.org/eng/jbwzlm/zgyw/t856287.htm>

We will make better use of foreign investment by continuously improving the investment structure, diversifying ways of investment and expanding investment channels. ... We will continue to open China's financial market and financial sectors in an orderly way. We will build a financial system that provides efficient services and places risks under control. We will improve the managed, floating exchange rate system based on market supply and demand, and make the RMB convertible under capital account in a phased way."

Chen and Medici (2009)⁷ sum up the importance of special economic zones as follows: *"The SEZs permitted China to induce, digest, and then adapt western technology through the controlled channels without exposing its entire political economy to fierce competition with more efficient multinational corporations. It also helped preserve a critical mass of socialist inertia that was of great ideological importance to a state not yet forty years removed revolutionary birth in 1949."*

Although, the concept of SEZs is not unique to China and has been implemented all around the world for centuries, China has been the most successful country in their implementation. The Chinese experience can, thus, serve as a leading example and demonstration case for other countries to follow. The SEZs helped China to transform its economy, promote the growth and, probably the most importantly, to implement new policies and reforms. This may serve as an example for many developing countries which want to choose gradual way to introduce market economy and necessary institutional changes. Yet, there are many concerns and criticism about the Chinese SEZs and voices saying that the zones led only to a regional disbalances and slowed the process. Regardless all the criticism, China made a huge leap forward in many areas and has only little in common with the poor, mostly agricultural country as it once was.

⁷ CHEN, X., MEDICI, T., 2009. The "Instant City" Coming of Age: China's Shenzhen Special Economic Zone in Thirty Years, Trinity College, Connecticut, 2009, p. 14, [accessed: 13-04-2015], available: <http://www.trincoll.edu/UrbanGlobal/CUGS/Faculty/Rethinking/Documents/The%20Instant%20City%20Coming%20of%20Age.pdf>

1.1. SEZ Definition and Objectives

According to Nallathiga (2007) SEZs can be characterised as: *"Insulated export areas that offer benefits such as duty concessions to manufacturing exports, and have several advantages, such as boost to industrial productivity, innovation, technology and management."*⁸ Another definition provides Matsui (2013) formulating the concept of special economic zones as any kind of specific area designed by an authority where are different taxation, FDI, or other institutional incentives provided. The major aim is thus to foster FDI, exports and attract new technology that leads to an increase in employment and development of the whole economy.⁹

Different definition provide Mohiuddin et al. (2014):¹⁰ *"In fact, the SEZs are not only "windows" to promote exchange between China and the rest of the world and engines of regional development in China but also leaders of change and laboratories to experiment with economic and political restructuring that is increasingly taking place in the middle kingdom. Chinese SEZs have now become development models for not only other regions in China but also many countries in the world."* In general, as Aggarwal (2010, p.3) formulates SEZs as: *"industrial enclaves that enjoy certain preferential policies for "export oriented manufacturing"."*¹¹ However, over time SEZ forms, objectives and definitions have evolved.

⁸ NALLATHIGA, R., 2007., Potential of Special Economic Zones in Promoting Industrial and Regional Economic Development: An Analysis, paper based on presentation at the third Annual International Conference of the Association of International Scholars held at the Indian Institute of Management, Kolkata, on Dec 29-31 2004, p. 62-80, [accessed: 05/03/2015] available: http://www.researchgate.net/publication/5105599_Potential_of_Special_Economic_Zones_in_Promoting_Industrial_and_Regional_Economic_Development_An_Analysis

⁹ MATSUI, Y., 2013., Special Economic Zone: Concept, Types, Experiences and Current Tendency, KRI INTERNATIONAL CORP. (NIPPON KOEI GROUP), [accessed: 01/04/2015], available: http://apbf.unescap.org/content/MBDW_files/files/MBDW-Day4-S13-JIKA_YOICHI_MATSUI.pdf

¹⁰ MOHIUDDIN, M., et al., 2014. The Special Economic Zone as a Locomotive for Green Development in China, *Asian Social Science*, vol. 10, no. 18, 2014, ISSN 1911-2017, p. 109, [accessed: 11/03/2015], available: http://webcache.googleusercontent.com/search?q=cache:vw16nBCu98IJ:www.researchgate.net/profile/Muhammad_Mohiuddin/publication/265013671_The_Special_Economic_Zone_as_a_Locomotive_for_Green_Development_in_China/links/5417e31c0cf2f48c74a4180c.pdf+&cd=7&hl=en&ct=clnk&gl=cz

¹⁰ GOKHAN, A., JAMES, C., 2008. Special Economic Zone: Performance, Lessons Learned, Implication to the Zone Development, *Foreign Investment Advisory Service (FIAS) Occasional Paper*. Washington, DC: World Bank., p. 1- 83, [accessed: 04/03/2015], available: <http://documents.worldbank.org/curated/en/2008/04/9915888/special-economic-zone-performance-lessons-learned-implication-zone-development>

¹¹ AGGARWAL, A., 2010. Economic Impacts of SEZs: Theoretical Approaches and Analysis of Newly Notified SEZs in India, MPRA Paper, no. 20902, March 2010, p. 61, [accessed: 11/03/2015], available: http://mpra.ub.uni-muenchen.de/20902/2/MPRA_paper_20902.pdf

If we stick to the official definition of SEZs as a special environment to attract foreign investment then we can say that there are around 3 500 special economic zones around the world. The global job creation in SEZs is around 66 mil and much more with the indirect employment. SEZ's are adopted in 130 countries and generate about \$500 b in foreign trade volume and investment about \$900 mil per SEZ.¹²

The special economic zones function under more liberal regime than the one predominant in the country. The World Bank (2011)¹³ distinguishes between the direct and indirect benefits in the SEZs. The direct benefits encompass advantages from the foreign exchange, inflow of foreign investment, an increased government revenue for both- the local and state authorities, and considerable export growth. Among indirect benefits belong, greater skill specialization and human capital, experimenting with different policies for a nationwide economic reform, import but later also export of new technologies, a demonstration impact, deeper specialization in export-oriented goods and accelerating of domestic efficiency and competitiveness.

A somewhat different view on the special economic zones in China provides Stoltenberg (1984)¹⁴ who argues that one could see the SEZs as a continuation of Chinese reform policies during the opening up period. In this way, they should have enabled and support the four modernization policies. The main purpose is to attract FDI so one can look at the SEZ as a mean to enter more favorable, and especially, more equal multilateral international treaties for China. From this perspective, the SEZ facilitate China to reclaim the state sovereignty. Yet, the SEZ are very dependent on a domestic policy and economic situation so there were concerns about their success since some argue that SEZ are nothing but a minor experiment of a socialist planners.

World Bank (2008)¹⁵ developed recommendations for a successful implementation of special economic zones. SEZ should not act as a separated area but should be incorporated

¹² RUIS, M., 2012. The Anatomy Of Special Economic Zones, *Colloquial Urban and Architectural Research and Development*, Nov. 2012, p. 1-57, [accessed: 12/04/2015], available: <http://www.cllql.com/wp-content/uploads/SpecialEconomicZones.pdf>

¹³ ZENG, Z., 2011. How Do Special Economic Zones and Industrial Clusters Drive China's Rapid Development? *The World Bank WP* 5583, p. 1- 53, [accessed: 10/04/2015], available: <http://elibrary.worldbank.org/doi/book/10.1596/1813-9450-5583>

¹⁴ STOLTENBERG, C., 1984. China's Special Economic Zones: Their Development and Prospects, *Asian Survey*, vol. 24, no. 6, Jun. 1984, p. 637 – 654, [accessed: 04/03/2015], available: <http://www.jstor.org/stable/2644396>

¹⁵ GOKHAN, A., JAMES, C. (2008)

into the domestic economy. They should be part on national trade agreements. The SEZ policies should be flexible enough to promote not just manufacturing but financial or commercial activities as well. Private development is better and more efficient than state-controlled one. Regulation framework is necessary to ease the communication within the zones and local authorities. Thus, institutional and legal bodies are key aspect of credible environment for the investors. Successful SEZs should rather focus on creating facilities and services rather than establishment of incentives. There should not be any preferential treatment for foreign over local investors as well as no limits for minimum amounts of exported goods. The zones should be also allowed to export and import from the domestic markets. When it comes to labor agreements, these should be compatible with the International Labor Organization (ILO) standards and regulations. Non-compliance of the ILO standards is often a target of criticism in the Chinese SEZs since the laborers work for minimum wages that are very low or even for lower salaries. Moreover, the labor conditions are far below the ILO recommendations.

1.2. Reform Policy and Opening-Up

In order to understand the uniqueness and importance of SEZs, it is necessary to set them in the historical context and describe policies that led to SEZs establishment. In 1949, People's Republic of China was established. Along with planned economy China wanted to become self-sufficient nation thus closing itself off from the foreign interference. In 1966, a Chairman of the Communist Party of China (CPC) Mao Zedong (in office 1945 – 1976), launched the Great Proletarian Cultural Revolution which led to an economic and cultural disaster. Ten years later, Mao Zedong died and was succeeded by Hua Guofeng in 1976.¹⁶

Although, it was obvious that there is a need for economic and social reforms, there were no signs of these coming in 1977. Even though, Guofeng made some attempts to reverse disasters that the Cultural Revolution brought, he was still loyal to Mao Zedong philosophy which then led to his resignation and his post was offered to Deng Xiaoping. Deng Xiaoping declined to become a Chairman of PRC and instead accepted the offer to become a Chairman of the Military Commission. Xiaoping was offered to become a new leader of China thanks to his strong appeal for economic reforms that apparently Guofeng lacked. Yet, Deng Xiaoping

¹⁶ Chinas's Foreign Trade, 2011. Embassy of People's Republic of China, Beijing, 2011/12/07, [accessed on 04-03-2015], available: <http://www.china-embassy.org/eng/zt/bps/t943740.htm>

was recognized as the leader since 1978 until 1992 (or even until his death 1994). In 1978, he contributed greatly to make the 3rd Plenary Session of the 11th Central Committee of the CPC agreed on economic reform and vast modernization. This became known as the Open Door Policy (*Gaige Kaifang*) and developed so called "socialism with Chinese characteristics". The "Four Modernizations" were adopted to boost and restructure Chinese economy. The emphasis was placed on agriculture, industry, national defence, science and technology.¹⁷

Albeit, Deng Xiaoping greatly contributed to the Open Door Policy and helped China to become one of the leading world economies, he is not often seen as an economist: *"There is no Deng Xiaoping vision of the economy or the economic system. Thus, while he has intervened repeatedly and forcefully to keep the economic reform process moving forward, these interventions have always been precisely calculated for political effect, and extremely vague on economic content. Deng was a politician, a manager and a generalist whose most successful role was as the political godfather of economic reform."*¹⁸

1.3. Four Modernizations

China decided for gradual reform policies that would sustain social stability. The first sector to be reformed was agriculture since despite the Cultural Revolution there still remained households managing smaller resources. Although, the concept of private ownership wasn't completely alien, the most important contribution was the restoration of farmer's motivations and incentives to grow more thus increase the productivity.¹⁹ Since the beginning 1978 until the end of this reform 1984, the total factor of agriculture productivity rose at the 5.62 % level per annum and agriculture output increased by 47 %.²⁰ This process initiated structural transformation that led to a reallocation of labor force from agriculture to industry.

¹⁷ TISDEL, 2008., Thirty Years of Economic Reform and Openness in China: Retrospect and Prospect, Economic Theory, Applications and Issues, *The University of Queensland WP 51*, ISSN 1444-8890, p. 25, [accessed: 02/03/2015], available: <http://www.uq.edu.au/rsmg/docs/ClemWPapers/ETA/WP%2051.pdf>

¹⁸ NAUGHTON, 1993., Deng Xiaoping: The Economist, *The China Quarterly*, No. 135, Special Issue: Deng Xiaoping: An Assessment, Sep., 1993, pp. 491-514, [accessed: 02/03/2015] available: <http://www.jstor.org/stable/654099>

¹⁹ GALBRAITH, LU, 2000., Sustainable Development and the Open-Door Policy in China, *UTIP WP no. 16*, May 2000, p. 20, [accessed: 02/03/2015], available: http://policydialogue.org/files/events/Galbraith_Lu_sustainable_development.pdf

²⁰ At first, the Chinese government increased the agriculture product prices and transformed the collective farming into "household-responsibility system." Thus, each farm household was given a fixed quota of grains that the government then repurchased at official fixed prices. The rest of the production was allowed to be sold at market prices. (Zhu, 2012)

However, in the second half of 1980s structural changes stagnated so in the 1990s markets for agricultural products were further liberalized and the state interventions were reduced.²¹

Next reformed sectors were light industry and commerce. The reform granted more freedom to wholesale and retail sectors. Previously state-owned services (especially food) were assigned to communes or to individuals. Main emphasis was placed on enhancing the light and textile industry that was underdeveloped during Mao Zedong era. Furthermore, the State Planning Commission focused on energy supply, transportation, construction, bank credit and foreign exchange for imports.²² In the first half of the 1980s, a dual-track system was adopted in the non-state sector, inspired by the success in the agriculture sector. State-owned companies were assigned quotas that were transacted at the officially set prices, yet the extra production was allowed to sell at market prices. Above that, non-state companies, small individual firms, and foreign-invested enterprises in the special economic zones, were permitted to enter new, formerly forbidden sectors at market prices.²³ Another great change was deputing decision-making to lower-level governments and granting them fiscal incentives.²⁴

Contrary to the nonstate enterprises in the 1980s, the banking reform and the effort to set up central-commercial bank system enjoyed very limited success. Local governments were gaining more power and forced banks to grant them loans and credits despite the central call for tightening. More and more investments by local officials were made and the inflation was thus increasing. In the 1990s, the economy stagnated and the CPC decided to inject more funds to state-owned enterprises hoping that they would enhance the recovery process.²⁵ Deng Xiaoping insisted on delivering a new moderate round of reforms in 1992. The main objectives were to transform bank system into US model banking system and made the

²¹ ZHU, 2012., Understanding China's Growth: Past, Present, and Future, *Journal of Economic Perspectives*, vol. 26, no. 4, p. 21, [accessed: 02/03/2015]

available: <https://www.aeaweb.org/articles.php?doi=10.1257/jep.26.4.103>

²² GALBRAITH, L., (2000)

²³ Thus, the state-owned companies were controlled by lower-level governments and rural collective firms were controlled by township and village-level governments. The amount of township and village firms increased significantly equipped by the excessive labor force from rural sector, access to capital and natural resources at market prices. Within a first decade of the reforms, the employment in the nonstate sector increased by 24 percentage points. The performance of state-owned firms wasn't so outstanding which led to an introduction of "managerial responsibility system" that tied manager's and worker's incomes with financial results. (Zhu, 2012)

²⁴ ZHU, (2012)

²⁵ In 1995, the CPC finally agreed on reducing its influence on state-owned enterprises thus employment in these enterprises decreased between 1995 and 2001 by 5 pp. and many smaller state-owned enterprises bankrupted or were privatized. Several key state-owned enterprises were converted into shareholding companies. In 1997, CPC officially allowed growth of private companies and many of township and village enterprises were either shut down or privatized. (Zhu, 2012)

People's Bank become a central bank that decreased political power of local officials. Next, according to the US tax system, China separated local and central tax collection system; in 1994 was introduced a single exchange rate system with a managed floating regime.²⁶

The major restraint of economy growth in the 1990s was weak institutional transformation, increasing unemployment (it is expected that the real unemployment rate was higher than the official), and bad management of state-owned enterprises.²⁷ Among other factors, China went through huge structural changes, catching up process, and price equalization as other transition economies.²⁸ Catching up process has been a result of new access to knowledge and technology thanks to opened trade policy to foreign markets. Further, there is better educated population²⁹ compared to past generations that enhances the usage of knowledge and technological development.³⁰

1.4. China's Accession to The WTO

China's accession to the World Trade Organization on 11 December 2001 marked a major milestone on the path of further development, opening markets and transition from a developing country into a modern developed economy. China's opening up and integration with the global trade economy has contributed greatly to growth of international trade and thus translated into growth of domestic economy. Its foreign trade composition has diversified and China has become more important within Asian region as well as within the rest of the world. China's accession to the WTO has contributed to better access of markets for trading partners and thus led to the multilateral benefits. Yet, the accession process had not been easy and China still has many challenges with the implementation the WTO policies ahead. It took 15 years from China's request to become again a member of GATT to its accession to the

²⁶ GALBRAITH, L.,(2000)

²⁷ GALBRAITH, L., (2000)

²⁸ At the beginning of Asian crises in 1998, China decided for expansionary monetary policy and six times decreased interest rate within only few months till the summer 1999. Notwithstanding, the monetary policy did not succeed so CPC chose fiscal stimuli to infrastructure and construction. The Asian crises made other countries more competitive and thus the demand for their goods increased at the expense of the Chinese. (Galbraith, 2000)

²⁹ Holz (2008) estimates that enrollment in BA programs exceeds the number of freshmen in the US since 2001. Moreover, in 2005 number of Chinese freshmen was twice as big compared to the US and it is still increasing. One can assume that China will have soon (if not already) a large pool of experts and talents to promote even further innovations. Also, China's growth has impact on world prices thus enhances global specialization that can lead to structural changes worldwide.

³⁰ HOLZ, 2008., China's Economic Growth 1978-2025: What We Know Today About China's Economic Growth Tomorrow, World Development, 2008, vol. 36, no. 10, p. 26, [accessed: 08/03/2015], available: <https://ideas.repec.org/p/wpa/wuwpdc/0507001.html>

WTO.³¹ China's accession to the WTO (and opening up of coastal cities and other zones before 2001) decreased to some degree SEZs competitive advantages. Since China joined the WTO, the domestic economy opened to international trade which was before a privilege of SEZs and other zone-based cities.

On the occasion of the tenth anniversary of China's accession to the WTO, the former Chinese President Hu Jintao, summed up the benefits as follows: *"China's accession to the WTO is a milestone in China's reform and opening up, bringing us into a new era to further open up. To join the WTO was a major strategic decision based on our comprehensive analysis of the situation at home and abroad in order to push forward China's reform and opening-up and socialist modernization drive."*³²

The same enthusiasm shared the former Chinese Premier Wen Jiabao by giving this speech: *"China's 10th anniversary of its accession to the WTO is a momentous event in China's opening-up to the outside world. If we describe the Canton Fair as a window China opened to the world, then the accession to the WTO can be seen as a door China opened to the world. If we describe the Canton Fair as China extending a hand to the world, then its WTO membership is its full embrace of this world."*³³

China's integration into the WTO was not an easy process.³⁴ From many measures, China did not fall under the status of a developing economy, yet on the other hand, it did not

³¹ In 1945, China became one of the 23 founding states of the General Agreement on Tariffs and Trade (GATT). Nevertheless, after the Chinese Revolution of 1949 Mao Zedong declared the establishment of the People's Republic of China, the further functioning under the GATT system was unthinkable. The Nationalist Party (known as Kuomintang, KMT) had to leave for Taiwan and declared there the creation of Republic of China (ROC). It was ROC which declared China's withdrawal from GATT in 1950. It took 36 years before China requested to resume its status in GATT in 1986. WTO Successfully Concludes Negotiations On China's Entry, WTO NEWS: 2001 Press Releases, 17 September 2001, [accessed: 14/03/2015], available: https://www.wto.org/English/news_e/pres01_e/pr243_e.htm

³² China in the WTO: Past, Present and Future, The Tenth Anniversary of China's Accession to The WTO, p. 3 [accessed: 12/03/2015], available: https://www.wto.org/english/thewto_e/acc_e/s7lu_e.pdf

³³ (China in the WTO, p. 4)

³⁴ There were two main kinds of standpoints about PRC's accession formed in the 1990s. One was rather nationalist, wanting China to focus more on a domestic economy with an argumentation that there already is a sufficient amount of foreign investments. In their favor was the Asian crisis in 1997. Second kind of official viewpoint was that China should continue its opening process and keep attracting more foreign investments. Although, there was no sign that China wanted to continue with the accession to the WTO after the crisis of 1997, everything changed two years later. In 1999, Premier Zhu Rongji, who was a great supporter of the reforms, paid a visit to the US to get their official approval of the entry to the WTO. The agreement between China and US was achieved in November 15th 1999 and in 2000 China obtained Permanent Normal Trading Rights (PNTR). However, PNTR was not required for China's accession, it officially granted the US blessings. The agreement with the US contributed to enter into an agreement with the European Union on 19th May 2000. On 11th November 2001, the WTO minister officially approved the China's entry and exactly a month later December, 11th PRC became 143th member of the WTO. (Prime, 2002)

meet requirements to obtain the status of a developed country. Therefore, each question and aspect of China's accession had to be carefully negotiated and evaluated.

Prior to entering the WTO, China came a long way when it decentralized trade, reduced tariffs, and unified exchange rates in 1994. Among many others, these steps, helped the export to grow from \$10 b in 1978 to \$278 b in 2000. China thus became the sixth largest trading nation a year before its accession. The trade openness increased from 10% to 40% by the end of the 1990s. One of the major reasons for China to become a member of the WTO, was to further enhance reforms that started in 1979. To sustain the economic growth from the 1980s and 1990s, it was clear that China has to integrate fully into global economy.³⁵ However, many emerging countries were afraid that it would threaten demand for their exports. Although, such a reasoning was right, there were more short and long-term costs and benefits that still might not be visible to this date.³⁶

Another reason for the entry was, probably, the endeavour to benefit from the high-tech revolution of the 1990s. The increased flow of FDI's would bring more advanced technology into the country and enhance own technological development. As it was already mention earlier, another motivation was to increase exports. The political reluctance of some countries to open to the Chinese exports was expected to be alleviated under the WTO.³⁷ Next, China had a strong political motives. Being a member of the WTO, it could participate on decisions and thus become a rule setter. An opportunity to influence new rules about global trade policy is very crucial for one of the largest trading nation as China.³⁸ Increased competitiveness was expected to contribute into increased efficiency and consumer's choice.

³⁵ The commitments were firstly regulating the compliance with the international rules and secondly an obligation continuing with gradual opening up process. China was obligated to follow the rule of law while building up market economy. When China began establishing the rule of law, it had to start revising and its legal system. Since, China is a great recipient of FDI flows, transparent business environment and laws ensuring the protection of investments are of highly importance. (Kanungo, 2009)

³⁶ ADHIKARI, R., YANG, Y., 2002., What Will WTO Membership Mean for China and Its Trading Partners?, *Finance and Development*, vol. 39, no. 3, September 2002, [accessed: 14/03/2015], available: <http://www.imf.org/external/pubs/ft/fandd/2002/09/adhikari.htm>

³⁷ China's trade policy is not only admired for its successful development since 2001 but also often criticized for lack of transparency, high level of corruption, or for harming other, mostly developing countries. The US and partially European Union are getting worried about China's increasing political and economical power. Some Asian developing countries are arguing that China's growth in export is harming them and many foreign companies willing or already existing on the Chinese markets are afraid of weak governance and not strongly defined property rights.

³⁸ PRIME, P., 2002., China joins the WTO: How, Why and What Now? *Business Economics*, vol. XXXVII, no. 2, April 2002, p. 26-32, [accessed: 14/03/2015], available: <http://www.chinacenter.net/docs/WTOPrime3.pdf>

The next reason, was cheaper imported goods, especially in services and automotive. Joining the WTO should also promote improvement in human capital.³⁹

1.5. The Reasons For Establishment of Zones With Preferential Policies

As it was already said earlier one of the reasons for the establishment of special economic zones was to test the new market policies without affecting the rest of the economy. This environment provided a learning field for many industries on one hand and experiment field for new policies on the other hand. This allowed to enhance reform policies and accelerated China's opening up process. Another reason was to attract foreign direct investment and thus bring into the country advanced technology and create spill-over effects for domestic economy. This was to boost China's economic growth and development and according the growth pole model help the western and central regions to develop. Next, special economic zones were to provide new jobs and lower the unemployment rate. Higher unemployment is normal during transition times and China wanted to avoid social unrests and discontent. China also wanted to strengthen the connections with overseas and increase the exports. Important trading partners were, especially during the first stages, Hong Kong, Macao and Taiwan.

The SEZs were aimed to bring up industrialization process and enable China to transform from agriculture to manufacture orientated economy. This was done through the foreign enterprises which brought FDI and founded manufactured firms which then export manufactures. This was believed to increase the living standards of people.⁴⁰ The reasons for founding SEZs vary from country to country. For many developing countries the rationale is policy and infrastructure. Another definition can be provided by Gokhan and James (2008), *"The hardware of special economic zones – fully serviced sites with purpose-built facilities for sale or lease- is aimed at enhancing the competitiveness of manufactures and service providers. It is also intended to realize agglomeration benefits from concentrating industries in one geographical area. These benefits include efficiencies in government supervision of*

³⁹ China's Accession To WTO, International Economics website, [accessed: 14/03/2015], available: <http://intl.econ.cuhk.edu.hk/faq/wtochina.php>

⁴⁰ SAHLING, L., 2008., China's Special Economic Zones and National Industrial Parks — Door Openers to Economic Reform, *ProLogis Research Group* 303-576-2766, 2008, p. 16, [accessed: 05/03/2015], available: <http://www.prologis.com/docs/research/asia/China - Special Economic Zones National Industrial Parks - Door Openers to Economic Reform.pdf>

*enterprises, provision of off-site infrastructure, improved environmental controls, and increased supply of sub-contracting relationships among industries. The infrastructure rationale is one of the most important driving forces behind the zones in infrastructure-poor countries."*⁴¹

Although, the definitions of SEZs vary, they mostly pursue four main goals. Attract foreign direct investments, increase employment level, promote further an economic reform and serve as an experimental units to test new policies. SEZs have become widely used way of transforming country from an import-oriented insufficient economy into an export-led growth economy in many Asian and Latin American countries. Their success differs from country to country, however, their number rose rapidly since the 1980s. In 1986, there were 176 SEZs in 47 countries, while in 2006 there were more than 3 500 zones in 136 countries. In particular, the policy makers focus on how to make SEZs successful in attracting foreign capital to provide more jobs, to make them economically tenable to help the rest of the country benefit, and to ensure their institutional, social and environmental sustainability.⁴²

The biggest challenges facing the SEZs are choosing the best location, finding skilled labor, local government policies, laws and regulations, stability of government, managing of the zones, macroeconomic situation of the whole country, supporting the industrial development. On the other hand advantages are, increasing employment rate, infrastructure, urban and technology development, tax exemption or significant reduction, residential visa and work permits for foreigners, special laws and regulations for foreigners and often times environmental preservation.⁴³

The oldest type of SEZs are free ports which were established in 1547 in Leghorn in Bay of Genova, Italy. During the first half of the 17th century, free ports arised in other European cities and then some of them transformed into free trade zones.⁴⁴ The first free zones cities with specified objectives and methods were in Gibraltar (1704) and Singapore (1819), Hong Kong (1848) or Hamburg (1888).⁴⁵ In the 1920s, first manufacture based SEZs were

⁴¹ GOKHAN, A., JAMES, C., (2008)

⁴² FAROLE, T., 2011, Special Economic Zones: What Have We Learned?, Economic Premise, *World Bank WP*, no. 64, p. 1-5, [accessed: 05/03/2015], available: <http://siteresources.worldbank.org/INTPREMNET/Resources/EP64.pdf>

⁴³ PAKDEENURIT, P., SUTHIKARNNARUNAI, N, RATTANAWONG, W., 2014. *Special Economic Zone: Facts, Roles, and Opportunities of Investment*, International MultiConference of Engineers and Computer Scientists 2014, vol. 2, March 12-14, 2014, Hong Kong, ISSN: 2078-0966 (Online), p. 1-5, [accessed: 07/03/2015] available: http://www.iaeng.org/publication/IMECS2014/IMECS2014_pp1047-1051.pdf

⁴⁴ AGGARVAL, A., (2010)

⁴⁵ GOKHAN, A., JAMES, C., (2008)

constituted in Cadiz, Spain and then in Puerto Rico during 1947-1951.⁴⁶ However, the first modern SEZ became Shannon in Ireland (1959). Nowadays, the succesful examples of SEZ worldwide, are Iskandar in Malaysia, Dominican Republic (has shifted from agriculture to manufacturing and created over 100 000 jobs), Honduras, Taiwan, El Salvador or Mauritius. Unfortunately, SEZs in Africa have not achieved a great success. African SEZs provide the lesson on what one should pay attention to when establishing SEZ. First, government has to support the zone yet not mix it with own agenda so the objecitves stay commercial and market-orientated. Second, although, SEZs are relatively self-sufficient areas, they are still strongly dependent on national competitiveness and investments. Third, a transparent regulatory and legal body and clearly defined the rules for investors.⁴⁷

1.6. Forms of Special Economic Zones

One can think of SEZs in a broader context as a geographically defined areas governed by a single body promoting certain objectives, enhancing infrastructure and attracting foreign capital. Then, SEZs can have form of Free Trade Zones (FTZ), Export Processing Zones (EPZs), Enterprise Zones, Single Factory, Free Ports, High-Tech Parks, or Speciallized Zones (SPs).

Table 1. Types of Different Zones With Preferential Policies

Type of Zone	Abbreviation	Definition
Special Economic Zone	SEZ	Industrial areas that enjoy preferential policies for export oriented manufacturing.
Free Trade Zone	FTZ	Duty-free zone for manufactured products.
Export Processing Zone	EPZ	Industrial zone with an aim to attract foreign investors and processed imported products before re-export them.
Enterprise Zone	EZ	A specific area to receive financial support. Usually in areas after a natural disaster to promote local growth and hire local workers.
Single Factory	SF	Incentives are aimed only for a factory without the need to be located in a zone
FreePorts	FP	Form of FTZ which includes whole duty free port (Hong Kong, Singapore). Provide human capital intensive services.
High-Tech Park/ High-Tech Development Zones	HIDZ	Technology park focused on developing R&D and advanced technology.
Specialized Zones	SP	Designated for a special purpose such as high-tech prodcuts.

Source: own layout

⁴⁶ AGGARVAL, A., (2010)

⁴⁷ FAROLE, T., (2011)

The most common are Free Trade Zones which serve as a duty-free zones that focus mostly on manufactured products. They may provide warehousing, infrastructure facilities and re-export without customs. In developing countries are widely implemented Export Processing Zones to enhance commercial exports. Contrary to the FTZs, they do not exhibit such a great level of tax and regulatory benefits. Their main aim is to ensure export-oriented investments.⁴⁸ Enterprise Zones are established to promote urban development and grant a better life quality to citizens and elavate the competitiveness. The most expansive form of SEZs are Free Ports (or Airport SPZs) which specialize in human capital intensive services like retail sails, tourism-oriented services or call centers. Last example are Specialized Zones that are established for some special purpose as promoting technical intensive products. The most common form of SZs are science and technology parks.⁴⁹

Generally speaking, in Central and Eastern Europe and many Latin American countries can be found mostly hybrid EPZs, Commercial Free Zones are often preferred in Middle Eastern and North African countries, while there are export manufacturing oriented zones in Asian countries. Modern SEZs are not seen as separated enclaves as they used to be but rather integrated part of domestic economy.

The main objective of the first wave of zones, was to cut the unemployment rate and increase foreign exchange. The second genaration of SEZs enhanced human capital and export specialization and diversification. The last generation of zones foster technology progress and innovation spillovers. The function and form SEZs have evolved over time. Formerly, the FTZs offered only tax incentives, while modern SEZs (including FTZs) offer infrastructure, services, lowered land costs, better corporate taxes and more favourable and relaxed policy and regulations. The SEZs have evolved from labor intensive production to capital intensive to high-tech intensive production. The former genarations of SEZs were built in immediate vicinity of ports, however, recently zones are established further inland to enhance their integration with the domestic economy.⁵⁰

Fiscal stimulus to SEZs have been an often subject of criticism due to their inefficiency. There is a great incentive to use the most favored tax packages and duty exemptions. These can take form of raw-material duty-free imports, exemptions from foreign

⁴⁸ OECD, 2011., *Designing Economic Zones for Effective Investment Promotion*, Working Group 1: *Investment Policies and Promotion 15-16*, February 2010, Amman, [accessed: 05/03/2015], available: <http://www.oecd.org/mena/investment/44866506.pdf>

⁴⁹ PAKDEENURIT, P., SUTHIKARNNARUNAI, N, RATTANAWONG, W., (2014)

⁵⁰ AGGARVAL, A., (2010)

exchange controls, or capital and profits benefits. Yet, there is a wide evidence of inefficiency of these measures. World Bank (2008) provides guidelines for employing an efficient fiscal incentive policy to SEZs. First, to design best income tax incentives, preferably, based on performance. This is to avoid uncompetitive policies such as tax holidays. Second, set transparent zone design criteria and define the rights of governments and private sector. SEZ regime should be flexible with clearly specified guidelines for financial, enviromental and technical support. Third, if possible, remove mnumum export requirements in a line with the WTO practice. This leads to broadening of allowed set of activities with a zone. Fourth, rely on qualitative and productive labor force and be consistent with the ILO standards.⁵¹

If we think about the SEZs in the broader context described earlier, there are many zones in China established by the governemnt as a part of regional development plan. Individual zones differ in objectives and policies. The zone's strategies vary and there is no official nationwide detailed strategy introduced. There are five different types of zones in China.⁵²

Table 2. Zones in PRC

Type of Zone	Number of Zones	Launch Year and Location
SEZs	5	1980: Shenzhen, Zhuhai, Shantou, Xiamen 1988: Hainan
ETDZs	69	18 zones in Yangtze River Delta, 10 in Pearl River Delta, 15 in Central Region, 11 in Bohai Bay Region, 2 in NorthEast Region, 13 in Western Region
FTZs	15	1990-Waigaoqiao, 13 coastal cities and 2 inland cities
EPZs	61	44 coastal regions and 17 inland regions
HIDZs	54	25 in coastal regions and 29 inland regions
New Areas	5	1989 fistr New Area Pudong Shanghai

Source: Mohiuddin (2014), own layout

Economic and Technological Development Zones (ETDZs) were introduced in 14 coastal cities in 1984. Nowadays, there are more than 60 state-level ETDZs in the country. The major focuus compared to the original four SEZs is on high-tech industries. Since the 1990s, there are Free Trade Zones which were set up as a preparation for the asccession to the WTO. Their purpose is to experiment with free trade and implement many export and import free duties. The largest FTZ is Waigaoqiao in Shanghai which encomposses area of 10km². The Waigaoqiao FTZ attracts about one third of all foreign enterprises in China with total number of 9 330. The next type of zones are Export-Processing Zones that are the most

⁵¹ GOKHAN, A., JAMES, C., (2008)

⁵² MOHIUDDIN, M., et al., (2014)

similar to SEZs. There are about 60 EPZs in China. Companies import raw material, process it and then re-export with the value added. Another group are High-Tech Development Parks which started to be created since the middle 1980s. China wants to increase the share of high-tech exports and to ameliorate its position in the global value chain. There are SEZs variants or New Areas similar to the original SEZs which focus on the increase development of a particular region. These are: Shanghai Pudong, Binhai Tianjin, Chongqing Liangjiang, Zhoushan in Zhejiang Province, and Qinwangchuan in Gansu Province.⁵³

1.7. Theoretical Approaches

Although, there are many theoretical approaches applicable to special economic zones, there is a lack of one unifying theoretical framework. The approaches have been evolving greatly in last few decades as a static gain theories were replaced by dynamic approaches. First, neo-classical approach is somewhat outdated and to the great extent replaced by new growth theory and global value chain theory that provides more space to capture other indirect benefits from zones. Special economic zones are not based only on their attractiveness to foreign capital and export orientted businesses but their aim is also to learn how to function in the international environment. Thus, political measures has tremendous effects on success and development of each zone. Then, zones have influence the development of domestic economy and can create substantial disparities within regions.

1.7.1. Neo-classical Approach

The neo-classical approach argues that there are negative welfare gains from special economic zones. The major cause of inefficiency comes from creating comparative advantages by the authority at the expanse of the natural comparative advantage. In case of SEZ, there is applied Hecksher-Ohlin two good-two factors-two countries model. If a country, like China, has a greater comparative advantage in a labor endowment industries but promote capital intensive industries, it decreases its welfare. The Rybczynski theorem says that when

⁵³ MOHIUDDIN, M., et al., (2014)

capital is imported as FDI to the labor intensive country, it reallocate its production away from its comparative advantage.⁵⁴

Thus, SEZs are distortionary in terms of trade patterns, producing unequal advantages for some businesses or industries, creating rent-seeking environment and increase government expenditures. From a different point of view, however, SEZs create a freer trade and liberal environment. If introducing a nationwide market economy is not feasible for whatever reasons, then SEZs could generate some welfare gains. Nevertheless, SEZs always represent a second best policy. SEZs should be seen only as a transitory instrument to free trade economy for a whole country with the least state interventions as possible.⁵⁵

1.7.2. Growth Poles and Growth-Axes Models

Often, the problem in developing countries is concentration on industrial development of just few regions or cities but not on the country as a whole. This leads to regional disparities. Developing countries use growth pole model to enhance growth in their less developed regions or they choose locations with expedient conditions for creating exporting enclaves, as it is the case in PRC, since 1978.

The growth pole theory was developed by Perroux in 1949. This theory emphasizes economic dominance which is the situation in which one area is more developed than the other so the first site is dominant over the second. One can distinguish natural growth pole in which more developed region or industry creates incentives for a dynamic development for the economy or planned growth pole according to which the region is used for a specific objective via investment.⁵⁶ The regional development emphasizes interconnectedness and mutual flows of the western and eastern regions. The western regions provide inputs while the eastern counterparts provide better technology. The transportation networks are key means for diffusing the development between the regions.⁵⁷

⁵⁴ A Review of the Role and Impact of Export Processing Zones [online], 1999, MADANI, D., The World Bank, 1999, p. 108, [accessed: 01/04/2015], available: <http://siteresources.worldbank.org/INTRANETTRADE/Resources/MadaniEPZ.pdf>

⁵⁵ AGGARVAL, A., (2010)

⁵⁶ PARR, J., B., 1973, Growth Poles, Regional Development, and Central Place Theory, *Papers of the Regional Science Association* 1973, vol. 31, is. 1, p. 173-212, [accessed: 10/04/2015], available: <http://link.springer.com/article/10.1007%2F01943249>

⁵⁷ FAN, C., 1997. Uneven Development and Beyond: Regional Development Theory in Post-Mao China, *Blackwell Publishers Ltd.*, 1997, p.1-20., [accessed: 10/04/2015], available: <http://www.sscnet.ucla.edu/geog/downloads/597/193.pdf>

The Chinese version of the growth pole model is called the ladder-step theory which assume inverted U shape of development since the eastern regions are expected to grow and develop faster than the central and western regions. Proponents of this theory claim that economic inputs are allocated effectively among the regions and any effort to change it through investing in the western regions at the expense of the eastern could lead to even greater inefficiency and disparity. The core (most developed regions) then enhance the growth in the periphery. The ladder-step theory laid the foundation for coastal development strategy in 1988 with many preferential policies for the eastern regions. This uneven regional policy is often criticised for increasing the gap and the attention should be paid for domestic market and regional development instead.

The four growth axes are; coastal axis, Chang Jiang River (Yangtze river), area along the Long Hai-Lanxin railway road and Regions along the border. The first and main coastal axis have been formed during the 1980s, then the Chang Jiang River axes in the 1990s and the remaining two axis have been established since the 21th century. The growth pole and axes consist of SEZs, provincial capital cities, main industrial and commercial or mining cities, military industrial bases, trading ports, cross-border zones (as Lancang Jiang – Mekong River). To avoid regional disparity, the interior of the country supplies resources and inputs to the coastal cities which in turn provide better technology and gained experience with market economy. In 2000, China implemented the Strategy of Great Western Development to lower regional disparities. The principle of the strategy is to select most important sectors in the Western region (energy, high-tech, infrastructure, etc.) and then reallocate there labor-intensive industry from the coastal cities. Furthermore, the Western region has many preferential policies to attracting FDI, new technology, tax reductions and an increasing attention is paid to environmental protection.⁵⁸

1.7.3. New Growth Theory

The new growth theory criticizes the neo-classical approach for ignoring many dynamic gains from SEZs. It argues that the right mix of the state and market cooperation is necessary, thus the state interventions are seen as positive for initiating institutional changes, enhancing human capital formation, spill-over of technology or making investment. The new

⁵⁸ GUANGWEN, M., 2003., *The Theory and Practice of Free Economic Zones: A Case Study of Tianjin, People's Republic of China*, University of Heidelberg, Germany, 2003, p. 1-239, [accessed: 11/03/2015], available:http://www.eu-china.net/upload/pdf/materialien/meng_2003_theory_and_practice_of_free_economic_zones_china.pdf

growth approach is based on endogenous growth theories and institutional economics. Within the SEZ, the government helps businesses to access new technology, managerial and organizational know how and, most importantly, to access the international distribution channels. The state promote FDI inflow through creating various incentives in a form of good infrastructure, regulatory system, preferential taxes or choosing the best zone location.⁵⁹

The SEZs may generate welfare gains thanks to FDI since they create spill-over effects for the whole zone and then for the country. FDI positively influence human capital formation, they bring in know how, offer learning by doing and offer demonstration for successful managerial skills.⁶⁰ Moreover, zones can be seen as a catalyst for domestic economy development. There are backward linkages as the demand from the whole economy is created and forward linkages as the input supply is generated. Yet, these linkages may not function if the zones focus more on light manufacturing or shipping which bounds the spill-over of higher developed technology and higher-skilled labor force to the rest of the economy. The direct effects of the zones are the increased level of income, expenditures on health, education, etc. While, the spill-over effects are training and learning by doing, new knowledge that are translated into better efficiency, productivity and improvements in human capital use.⁶¹

1.7.4. The Global Value Chain

The global value chain approach is based on the fact that globalization has brought a division of the production process in which each step in a producing chain is carried out in a place with the least costs through off-shore outsourcing or off-shoring. Off-shore outsourcing means that the production process stages are performed in the most efficient firms abroad, while off-shoring means displacement of production to a new country through FDI. Domestic firms alone cannot successfully integrate into the global value chain if they are not promoted by government's incentives as discussed earlier. Zones attract not just foreign but also domestic investment. Within the global value chain firms are facing increased competitiveness and gain access to new technologies, capital and other skills.⁶²

⁵⁹ AGGARVAL, A., (2010)

⁶⁰ *A Review of the Role and Impact of Export Processing Zones* [online], 1999. MADANI, D. The World Bank, p. 1-108, [accessed: 01/04/2015], available: <http://siteresources.worldbank.org/INTRANETTRADE/Resources/MadaniEPZ.pdf>

⁶¹ CHEESMAN, A., 2012., *Special Economic Zones & Development: Geography and Linkages in the Indian EOU Scheme*, DPU WP no. 145, p. 42, [accessed: 01/04/2015], available: <http://www.bartlett.ucl.ac.uk/dpu/publications/dpu/latest/publications/dpu-working-papers/WP145.pdf>

⁶² AGGARVAL, A., (2010)

These export-led growth strategies also enables domestic firms to integrate in the global network. Nevertheless, export-led growth has also helped the formation of many structural imbalances in the whole country. The domestic consumption grows slowly while there are much higher domestic savings which therefore needs to be invested abroad. On one hand, there is slower increase in household's income, while on the other hand, there is high growth of corporate income and government revenues.⁶³ To sustain its export-led growth strategy is necessary to deal with these imbalances and increase the share of domestic consumption on GDP. Although, SEZ have contributed to these disbalances, it's not easy to evaluate to which extent.

1.8. The Legislative Process and Incentives in the SEZs

In July 1979, the State Council and the Central Committee of the CCP enacted a directive that allowed the Fujian and Guangdong provinces to set up special economic zones to foster foreign trade and draw investment to start the modernization process. Above the reasons to establish the SEZs discussed earlier, there also was an effort to improve the relationships with Taiwan and Hong Kong via mutual economic bonds. The Guangdong province framed a set of regulations governing the SEZ's policies and tax incentives. The regulations were sent to Beijing where they were revised and subsequently approved by the CCP. In August 1980, the Regulations on Special Economic Zones in Guangdong Province were enacted and became the main legislation regulating the policies in the special economic zones in China. Fujian province regulations were later built on the Guangdong regulations.⁶⁴

The regulation promote the Guangdong province to create a stable and favourable environment for significant foreign investment. There is importance of investing in water and power supply, roads and warehouses. Each of the Guangdong SEZs is encourage to form a foreign advisory body in order to help with the modernization process. The foreign account operations are provided by the Bank of China in each zone. All products are to be sold to foreign markets, only some exceptions can be make after the approval of the Guangdong Provincial Committee. The land is owned by the PRC, any distribution or fees for renting are

⁶³ *China's export-led growth model*, [online], 27 Feb 2011, Yao, Y., EastAsiaForum - Economics, Politics and Public Policy in East Asia and the Pacific, [accessed: 11/03/2015], available: <http://www.eastasiaforum.org/2011/02/27/chinas-export-led-growth-model/>

⁶⁴ FENWICK, A., 1984. Evaluating China's Special Economic Zones, *Berkley Journal of International Law*, vol. 2, issue 2 Fall, p. 1-23, 1984, [accessed: 11/03/2015], available: <http://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1025&context=bjil>

determined by the Guangdong Provincial Committee. The raw materials and machinery products are exempt of import duties. Investors who operate at least five years in the zones can apply for reduction of full exemption of income tax. The employees are hired by labor service company or by the foreign enterprise itself. The Guangdong Provincial Committee for the Administration of Special Economic Zones has the authority to compile the development plans and their implementation, to assess the investment projects, to establish educational, health and cultural institutions.⁶⁵

In order to attract foreign capital into the SEZs, 15 % reduced tax rate for manufacturing companies with tax exemption within the first two years and 50 % reduction in the following three years. Moreover, there are significant tax concessions for export orientated enterprises which function longer than 10 years and the export share is more than 70%. Enterprises that are acknowledged as technologically advanced, or companies operating in software industry, can request for another tax reductions beyond the original five year period. Yet, companies can request additional tax reductions of corporation tax or shorter depreciation periods for capital goods. Foreign companies investing in infrastructure, especially in harbors or aviation infrastructure, are free of taxes in the first five years, followed by 50 % reduction in the upcoming five years.⁶⁶

The regulations are found as insufficient and vague in many regards. The missing or not detailed enough legislation includes the dispute resolution for foreign investors. There are also not any details regarding the tax policies of certain types of enterprises, as well as, specifics about foreign exchange or import tariffs. Other concerns include the wage levels that are not mention at all. Some critics even suggest that these lacks are intentional for they leave enough space for negotiating with the bureaucrats and thus for corruption. Within the first year from establishing the Guangdong zones, majority of investment came solely from Hong Kong. This suggests that investors from other countries were not willing to invest under ambiguity. Another deficit was the disparity in the sectoral decomposition of investment. This fact may be displayed in the case of Shenzhen, when in 1981 about 72 % of FDI were in real estate, yet

⁶⁵ *Regulations On Special Economic Zones In Guangdong Province*, [online], Laws of The People's Republic of China, [accessed: 19-04-2015], available: <http://www.asianlii.org/cn/legis/cen/laws/rosezigp554/#3>

⁶⁶ *Special Economic Zones And Tax Exemption in China*, Report by Ernst&Young, China Competence Centre, p. 1-4, [accessed:04/03/2015],available: <http://www.ey.com/CN/en/Services/Tax/Country-Tax-Advisory/EY-China-Tax-and-Investment-Express>

only 10 % went to industrial development which was the original targeting sector. During the same year, around 42 foreign enterprises left Shenzhen due to the Regulations.⁶⁷

In 1981, as a response to the shortcomings and criticism, Beijing together with the provincial authorities and specialists prepared a new draft on the SEZ regulations that were approved in 1982. The changes related to immigration policies, registration of new businesses, labor and wages treatment and some administration issues that were not approved. One of the biggest improvement was the entry and exit procedure which was, especially between the zones and Macao and Hong Kong, considerably simplified. In the labor and wage policies, the foreign firm authority was strengthened since they were allowed to hire, fire and award the workers. Yet since 1982, there have been other more detailed alternations to the Regulations. These adjustments included property rights, foreign banking policies, technology transfers or arbitration. Despite all these improvements, the modernization process was hampered by the bureaucracy as elsewhere in PRC. The administrative hierarchy is overlapping, with a lot of confusion and mistrust. There is also a lot of space and bridging opportunities in negotiations between the zones and the provincial government.⁶⁸

The incentives in SEZ incorporate special favourable policies, namely, fiscal stimuli, opening of the domestic markets, or special custom duties or tax reductions. The local governments act as economic planners since they provide marketing and legal services, guidelines for foreign investors and many other preferential policies that can be later negotiated. The SEZs have also been granted a significant institutional independence on Beijing. The SEZ also offer access to low-cost labor force and large natural resources as well as favored location.⁶⁹

⁶⁷ FENWICK, A., (1984)

⁶⁸ FENWICK, A., (1984)

⁶⁹ MOHIUDDIN, M., et al., (2014)

2. Development of Chinese Special Economic Zones

During the Open Door Policy, China agreed to test market economy in a special controlled environment – special economic zones. This provided China an opportunity to experiment with new policies and institutions without risking to compromise whole economy and causing social disorders. Many economists agree that SEZs contributed significantly to the development of China.

There are more than 187 zones in China and Chinese share alone accounts for 19% of zones worldwide. Roughly half of them are private and altogether employ 40 mil workers directly and about 60 mil indirectly. Chinese zones account \$200 b in exports per annum. This makes Chinese zones one of the most successful and therefore it is of a great value to understand how Chinese zones differ and what is the cause of their enormous achievement.⁷⁰

Since China's accession to the WTO, there have been some changes in the SEZ trade policies. Although, the WTO does not explicitly adjust SEZs policy, there are some agreements to be followed. The Agreement on Subsidies and Countervailing Measures (SCM) prohibit export subsidies and the preference of exploiting domestic rather than imported inputs.⁷¹ If these kind of subsidies affect negatively WTO's member state which has dispute resolution clause then there might be consultations and recommendations by WTO. The consensus is that SEZs policies are in accordance with the WTO policy as long as there is a foreign exchange balance or a specific firm or industry is not preferred at the expense of others. Other words, SEZ practices that provide a specific export incentives (such as minimum export requirements, or lower taxes on export income) are in conflict with the WTO regime and need to be changed.⁷²

2.1. The phases of the SEZs development

Although, the division into phases differ, there have been four key phases in the special economic zone development. The development of special economic zones can be divided into four phases. The first is from 1979 until the mid 1980's, the second lasts till the

⁷⁰ GOKHAN, A., JAMES, C., (2008)

⁷¹ The Uruguay Round set the date 1. 1. 2003 for ablation of export subsidies in developing countries. This date was, however, extended to 2010. The Doha Round (2001) determined the countries which can extend their export elimination subsidies provided that their share of total world exports did not exceed 0.10 % within the 1998-2000 span and gross national income stayed below \$20 b in 2000. GOKHAN, JAMES (2008), p.54.

⁷² GOKHAN, A., JAMES, C., (2008)

first half of the 1990's, the third is then from the mid 90's until 2001 and the fourth is from 2001 to present.

Illustration 1. Map of SEZs



Source: *Quick guide: China's economic reform* [online], BBC News, [accessed: 10/04/2015], available: <http://news.bbc.co.uk/2/hi/asia-pacific/5237748.stm>

During the first phase (1979 – 1984), the four SEZs were established in Guangdong and Fujian provinces as the depicted in the picture above. Their locations were strategically selected. Shenzhen was based close to Hong Kong, Zhuhai was set up near Macau, Shantou and Xiamen in proximity to Taiwan. The location was not chosen randomly but was rather aimed at attracting Chinese capital overseas. The vicinity of Hong Kong was a strategic decision since there was a global shipping network. Especially, Shenzhen profited from the location since it lies across the river from Hong Kong. Another reason for their location was to establish them away from Beijing to eliminate political interference.

The zones had a tremendous impact on the foreign trade and investment since the very beginning. In 1981, their share on total FDI was 59.8 % and in 1985 the share was still high – 26%. The Chinese annual average GDP growth was 10% between 1980 and 1984, while Shenzhen grew by 58% annually, Zhuhai by 38%, Xiamen by 13% and Shantou 9%.⁷³ Thus, by 1984, SEZs were evaluated as successful and they opened the doors for further development and opening of 14 coastal port cities. The year 1984 is the beginning of the second phase of the special zone's development. The 14 coastal cities are sometimes called as industrial park zones since these are Economic and Technological Development Zones (ETDZ). The ETDZs are usually smaller than SEZs and they focus on a specific industry like

⁷³ ZENG, Z., (2011)

high tech and research and development. Among ETDZs, there are zones with a different emphasis as High-Tech Development Zones supporting innovations through various incentives or Bonded Logistic Zones that have specific custom regulations. There are 54 ETDZs in China which further proceed special economic zone's achievements.⁷⁴

The 14 cities, forming the growth axis discussed earlier, are: Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Guangzhou, Zhenjiang, and Beihai. In 1985, the Changjiang River, the Zhujiang River Delta, and the area between the cities Xiamen, Zhangzhou and Quanzhou became open economic areas, altogether with Liadong and Shandong peninsulas two years later. Another wave of enlargement took place in 1988 when 140 cities became open coastal zones as well. Among these were three large provincial cities – Hangzhou, Nanjing and Shengyang. In 1988, the largest and the fifth SEZ was established in Hainan. In 1990, Pudong New Area (Shanghai) was developed which represented beginning of development from the coastal areas to the interior of the country.⁷⁵

Although, the SEZs performed well, there were many institutional and political limits to their development as McKenney in 1993 assess the development (p. 20)⁷⁶: "*Structural characteristics of the Chinese state have critically influenced SEZ policies and economics. Political and policy instability are consequences of bureaucratic underdevelopment and ingrained personalism. Internal state incoherence has hampered economic performance as the unsteady regulatory environment has periodically repelled foreign investors. This situation is exacerbated by the problems associated with reforming the excessive scope of state power in the economy. Decentralization and structural reform, while necessary, have pushed SEZ costs higher. In sum, zone problems are rooted in domestic Chinese political economy.*"

The next phase started in 1992, when the open regions got enlarged to the border regions and then inland. All provincial cities were opened, new 15 Free Trade Zones (FTZ) were established, 32 ETDZs and 53 industrial zones that resulted in a creating of multi-level system of zones helping the interior China as well. There are different preferential policies

⁷⁴ *The Development of China's Special Economic Zones*, China Insights, [accessed: 05/03/2015], available: <http://www.internshipschina.com/community/chinainsights2/55-china-insights/669-the-development-of-china-s-special-economic-zones#.VSTXNfmUcWI>

⁷⁵ GUANGWEN, M., (2003)

⁷⁶ MCKENNEY, K., 1993. *An Assessment of China's Special Economic Zones*, Executive Research Project S94, National Defense University, Washington, 1993, p. 1- 40, [accessed: 10/04/2015], available: <http://www.dtic.mil/dtic/tr/fulltext/u2/a276611.pdf>

applied to attract FDI, enhance export and building global networks.⁷⁷ Cross-border Growth Triangles of Tumen River and Lancang-Mekong River were established after 1992.⁷⁸ The key purpose of establishing FTZs was to get some experience with free trade before China's entry to the WTO in 2001. The first set up FTZ was Shanghai Waigaoqiao FTZ. FTZs were focused on exports, foreign trade and logistics with different custom regulations than other parts of China. However, their significance have faded since China became the WTO member.⁷⁹

The last phase has been since 2001, when China has opened its markets and integrated into the global economy. As a result, there are 222 state-level economic zones and 1346 province-level economic zones. Thus, there is a multi-level diversification design in which larger zones (at the municipality level) provide background for smaller level economic zones in its region. The share of municipalities with the SEZs was gradually growing from 0% in 1979, 69% in 1995 to 92% in 2007.⁸⁰ In 2001, Lhasa (Tibet) became a special economic zone as well. China has started using economic zones to promote its relationships with the neighboring countries. Except Vietnam, mentioned earlier, China created border town zones with Russia, Kazakhstan, and Mongolia and also with Taiwan and Malaysia. In this way, the SEZs can be used to promote the Chinese political, cross-border regional interests and trade agreements with foreign countries. Recently, China has started investing in few African countries and establishing there special economic zones. The Chinese plan overseas is to develop six special economic zones and built costly infrastructure there.⁸¹

In 2007, the share of SEZs on a national income was 21.8% and their share on total level of FDI was 46%. Despite, the economic success, there is recently criticism for violating working conditions within the zones. The main concern is about too low wages, often overtimes and low healthy and safety standards. There is also a legal restriction for forming the unions. Further, there is some evidence that the incentives used within the SEZs are only a

⁷⁷ *Politika Otevření se Světu: ZVLÁŠTNÍ EKONOMICKÉ OBLASTI A OTEVŘENÁ POBŘEŽNÍ MĚSTA*, 2010/05/02, [online], Embassy of The Peoples Republic of China in the Czech Republic, [accessed: 10/04/2015], available: <http://www.chinaembassy.cz/cze/zgk/t126980.htm>

⁷⁸ GUANGWEN, M., (2003)

⁷⁹ ZENG, Z., (2011)

⁸⁰ WANG, J., 2010. *The Economic Impact of Special Economic Zones: Evidence from Chinese Municipalities*, Hong Kong University of Science and Technology, 2010, p. 1-44, [accessed: 12/04/2015], available: https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=NASM2011&paper_id=239

⁸¹ *China's Strategic Use of Special Economic Zones*, [online], Colloquial. Urban and Architectural Research and Development, , [accessed: 12/04/2015], available: <http://www.clql.com/?p=2821>

drag to the government budget. It might be rather a greater liberalization than an increasing amount of SEZ that leads to greater economic growth.⁸²

2.1. The Shenzhen Economic Zone

Shenzhen became the first and the most successful economic zone in China. It transformed from a small fishing village with an area just of 3 km² and 30 000 inhabitants, into one of the most developed industrial Chinese cities with population around 15 mil with all its agglomeration. Shenzhen lies in the Guangdong province which is located in the Southeast of China. It shares borders with Hong Kong which was a strategic decision in order to attract investment. Prior to the transformation, the living standards of Shenzhen were extremely low causing people to migrate into Hong Kong despite the knowing they would lose all their properties and farmlands. Shenzhen became the first experimental field for the Chinese reforms and its development was faster and on a very large scale.⁸³

Shenzhen consists of 5 zones; Shenzhen High-Tech Industrial Development Zone (HIDZ), Shenzhen Futian Bonded Zone (BZ), Shenzhen Yantian Port Bonded Zone (BZ), Shenzhen Shatoujiao Bonded Zone, and Shenzhen Export Processing Zone (EPZ). HIDZ aims to bring in new technology, enhance R&D, electronics and IT, biological technology or electronic technology. The Futian BZ, founded in 1991, specialize in high-tech industries, logistics and warehousing. The Yantian Port BZ is one of the largest Chinese container terminals, shipping goods to Europe, Asia and Pacific region. The last EPZ, set up in 2000, focuses on export goods with preferential tax policies for exports.⁸⁴

The doors for establishing the zones were opened by passing two laws. The first law was, the Joint Venture Law in 1979. It allowed foreign enterprises to set up equity joint ventures together with the Chinese companies, and furthermore, it enacted overseas investors to influence the state-owned enterprises. This law contributed to broader institutional and organizational changes. The second important law —The Regulation on Special Economic Zones was enacted in 1980. This law gave special zones a status of an area with preferential

⁸² RUIS, M., (2012)

⁸³ HAO, L., 1996. Development of The Shenzhen Economic Zone, Report for National People's Congress, China, 1996, p. 145-149, [accessed: 13-04-2015], available: http://www.neaef.org/public/neaef/files/documents/publications_pdf/annual_meeting/6th-1996/6.1.Li_6an_1996.pdf

⁸⁴ Shenzhen, [online], China Briefing, [accessed: 13-04-2015], available: <http://www.china-briefing.com/regional-intelligence/shenzhen.html>

policies aiming to attract foreign capital with significant tax reduction. Since 1980, Shenzhen annual growth rate was about 30% (often even around 50%) with the GDP per capita around US\$10 000 in 2007. The GDP per capita is the highest from all other Chinese cities and its total amount in GDP for the same year (US\$100 b), makes Shenzhen the fourth among Chinese cities. The industrial share on GDP rose from 20% in 1979 to 50% in 2007 and its agriculture share dropped within the same years by 29 pp. What is the reason for Shenzhen success making the village with just on poor road into a world's logistic center?⁸⁵

2.1.2. Shenzhen Preferential Policy

Shenzhen became successful for its location and preferential policies. Taxes were significantly reduced or exempted completely. The income enterprise tax was 15% and logistic orientated companies that run longer than 15 years were exempt from taxes beginning from the first profitable year. Moreover, there was half income tax for the following five years. Similar 2 year exemption tax was in effect for companies operating longer than 10 years and half tax from the third to fifth year. After the periods of these preferential taxes, there was 10% income tax. Export and import goods that were produced or used in Shenzhen were excluded from custom duties. To support foreign investors even more, the land was offered in tenure for low costs and for long periods of time. Another great reform policy was dealing with foreign exchange. The export-oriented enterprises were allowed to keep the foreign exchange. The Bank of China and few foreign banks were allowed to provide foreign exchange transactions. After paying the income tax, the residual profit could be sent overseas. Hong Kong citizens were allowed to access the zone without a need of any visa and foreign investors were guaranteed the possibility to obtain multiple entry visa. Since 1989, Shenzhen was given the provincial level status and in 1992 was granted the authority to enact own legislation. Until 1990, Shenzhen did not have to contribute to the central budget.⁸⁶

2.1.3. Shenzhen Development since 2001

As the first special economic zone, Shenzhen has pioneered and profited a lot from preferential policies in 1980s and 1990s. Nevertheless, since 2001 and China's entry to the WTO, Shenzhen's lead among other zones and Chinese cities has been slowly vanishing. In

⁸⁵ CHEN, X., MEDICI, T., (2009)

⁸⁶ HAO, L., (1996)

many ways, Shenzhen has reached its limits and entered a new phase of its development to search for new areas of advantages and becoming more efficient.

In 2005, there were first major concerns about Shenzhen future development. One of the problems have been the restricted area for further construction and expansion, insufficient water and energy resources, large population (officially 8.9 mil but with all the agglomeration and migrating workers it is about 15 mil) and last but not least an increasing environmental pollution. From these concerns followed that it was necessary to reassess the strategy of increasing labor supply in order to enhance GDP since it could be the case that Shenzhen would reach its limits if the problems are not solved. As a result, there were tighten up conditions of land approval, the minimum wage was increased to the highest level in China (\$125/month) and prohibited highly polluting industries.⁸⁷

In 2010, Yu Youjun, the Shenzhen Mayor, said that since the WTO accession, the effects of many favourable policies, as well as the location amenity, has decreased. Nowadays, the Yangtze River Delta has become more attractive for many overseas investors and Shenzhen shipping advantage has been fading away. Next, Shenzhen loses its fast growing GDP lead compared to Shanghai and Suzhou. Another great disadvantage compared to other cities, especially Shanghai, is that Shenzhen Stock Exchange has not allowed any new IPO's since 2000.⁸⁸

Another challenge is that Shenzhen has been getting more expansive for enterprises so that not even tax reductions are enough to keep them there. For example, the biggest Chinese telecommunication company set up in Shenzhen – Huawei which started to move its production in nearby Dongguan where land is much cheaper. Other companies or banks decided to move from Shenzhen. Another example can be China Merchant Bank (founded in Shenzhen in 1987) moved part of its services to Shanghai. The next effort for improvement was to enhance heavy industry since 2007. Although, it might sound counterintuitive, the reason behind is that Shenzhen has skipped some industrialization phases as other Chinese cities and zones. Next, in 2008, China's government agreed Shenzhen to become the first

⁸⁷ CHEN, X., MEDICI, T., (2009)

⁸⁸ *Shenzhen Faces New Challenges*, [online], Aug/26/2010, Shenzhen 30 Years, Beijing Review, [accessed: 13-04-2015], available: http://www.bjreview.com.cn/special/2010-08/26/content_294280.htm

experimental innovation center and the same year UNESCO labeled Shenzhen as the 'City of Design'.⁸⁹

2.2. The Zhuhai Special Economic Zone

In 1980, Zhuhai was set up as the second economic zone after Shenzhen. At the beginning its area covered only 6.7 km², while eight years later it grew to 121 km². Zhuhai, located in Guangdong province, was chosen as a SEZ for its proximity to Macao, Hong Kong and Taiwan as well as for its experiences in international relations. Zhuhai is also near to Shenzhen which gives the zone supply chain advantage. Zhuhai has two big ports, Gaolan and Jiuzhou and Sanzao Airport which serves as a second cargo base for Hong Kong.⁹⁰

Zhuhai was originally underdeveloped area where had to be established basic infrastructure first, such as, roads, water and energy supply or sewage. The Jiushou port was opened to provide transport sea road to Hong Kong. After initial opening up, Zhuhai orientated on labor intensive products and tertiary industry, especially tourism. Zhuhai decided to concentrate on increasing human capital, education and cultural development. There were big investments in technical secondary education, as well as medical or politic and law schools. Although, six years after establishing the special economic zone, the administrative structure and investment were still found inefficient. There were still quite big interventions from the former political and economical representatives.⁹¹

In 1980, the primary industry represented 41%, while in the mid of the 1980s, the secondary and tertiary altogether accounted for 60% of Zhuhai annual GDP. In 1997, the primary industry share on GDP declined to 5% and tertiary reached 43%. During the first few years after opening up, the share of small firms on the industrial output was 75%, while the share of large enterprises only 14%. This trend reversed in the first part of the 1990s but by the end of the 1990s, the small firm's share returned to its original level. During the 1990s, the share of foreign enterprises rose exponentially and reached almost 1000 enterprises by the end of the decade. The foreign trade rose remarkably as well in the 1990s. Export share increased by 30 % annually and the import share by 50 % between the years 1990 and 1997.

⁸⁹ CHEN, X., MEDICI, T., (2009)

⁹⁰ *Understand China*, [online], [accessed: 19-04-2015], available: understand-china.com/province/zhuhai/

⁹¹ GUO GUANG, L., et al., 1987, Experiences in Developing China's Special Economic Zones (typically Shenzhen), UNESCO, p. 1-226, [accessed: 13-04-2015], available: <http://unesdoc.unesco.org/images/0007/000761/076188EB.pdf>

Although, the Zhuhai SEZ developed fast, compared to Shenzhen SEZ, it was not so successful.⁹²

Zhuhai has always profited from Macao (a former Portuguese colony) and their economic relationships have been even more strengthened after 2003. In that year, Macao and mainland China signed 'Closer Economic Partnership Arrangement' (CEPA) that is similar to free trade agreement and chose 272 products that are exempted of custom duties. There have been established three development zones in Zhuhai. Zhuhai High-Tech Industrial Development Zone, producing information technology and chemicals, Zhuhai Free Trade Zone, providing warehousing, logistic and export-orientated goods and Zhuhai Macao Cross-Border Industrial Zone, specializing in electronics, textiles and logistics. In 2013, Zhuhai annual GDP grew at 10.5 % rate and reached RMB 166b.⁹³ The Chinese National government provides strong incentives in R&D, green enterprises, high-tech, agriculture and foreign enterprises. Recently, there are offered great tax subsidies for enterprises in energy and water saving projects, and for non-profit organizations or enterprises employing disabled workers. The main supported sectors are electronics, information technology, petrochemicals and electric power supply.⁹⁴

2.3. The Shantou Special Economic Zone

In 1980, Shantou became the third SEZ established in Guangdong province. The original area was about 2 000 km² with 2.8 mil inhabitants. Besides its proximity to Hong Kong and Macao, the Shantou zone was chosen because many Chinese emigrants came from Shantou so it was expected that they may come back and invest there. The original position was slightly different because Shantou already was industrial city with 30% share of the secondary sector. Since 1980, the tertiary industry became the largest sector and was the largest until the mid of the 1990s. In 1997, the secondary industry accounted for 47% share in Shantou annual GDP. By the 1997, the share of agriculture was 11%. However, the share of

⁹² KNOTH, E., 2000, *Special Economic Zones and Economic Transformation: The Case of The People's Republic of China*, Universtiy of Konstanz, 2000, p. 1-265, [accessed: 13-04-2015], available: <http://d-nb.info/959241612/34>

⁹³ *Zhuhai (Guangdong) City Information*, [online], China Knowledge Website, [accessed: 13-04-2015], available: <http://www.chinaknowledge.com/CityInfo/City.aspx?Region=Coastal&City=Zhuhai>

⁹⁴ *Understand China*, [online], [accessed: 19-04-2015], available: <http://understand-china.com/province/zhuhai/>

foreign direct investment remained the lowest compared to the other zones in the first few years.⁹⁵

The regulations and preferential policies were adjusted by the Regulations on Special Economic Zones in Guangdong Province from August 26, 1980. Therefore, there were the same tax subsidies or redemptions as in the Shenzhen and Zhuhai special economic zones. This includes import duties exemptions for the machinery and raw materials imported by foreign enterprises or the 15% enterprise income tax.⁹⁶ The Shantou special zone is connected with Shenzhen and Xiamen zones by the Shantou airport and several highways and fast railway roads. The harbor ranks among top 20 Chinese ports and provides shipping into more than 40 countries. Besides the Shantou SEZ, there is Free Trade Zone and High-Tech Industrial Development Zone. The Shantou SEZ specializes in the light industry, namely toys, plastic goods and electronics.⁹⁷

Shantou is the slowest developing special economic zone, therefore there were proposals to create new Shantou SEZ which would include two other cities – Jieyang and Chaozhou. In 1991, these two cities were separated by the law from Shantou. Nevertheless, this decision led to slower development since all three cities have own authority bodies. It is believed that the inefficient division blocks the flow of the foreign direct investment, especially from Shantou-born Chinese who are settled in Hong Kong.⁹⁸

2.4. The Xiamen Special Economic Zone

Xiamen, a sub-provincial city of Fujian province, was chosen as another of the four special economic zones in October 1980 and inaugurated in 1981. Xiamen is a small island that lies opposite to Taiwan. The Fujian province lies between the Pearl River Delta in the south and Yangtze River Delta in the north. The location was chosen for family connections with Taiwanese since over 80% of Taiwanese came from the Fujian province. The large migration to Taiwan began during the Qing Dynasty. Xiamen shares with Taiwan the same dialect, history and culture. Therefore, it was supposed to become a successful economic zone.

⁹⁵ KNOTH, E., (2000)

⁹⁶ Regulations On Special Economic Zones In Guangdong Province, [online], Laws of The People's Republic of China, [accessed: 19-04-2015], available: <http://www.asianlii.org/cn/legis/cen/laws/rosezigp554/#3>

⁹⁷ *Understand China*, [online], [accessed: 19-04-2015], available: <http://understand-china.com/province/shantou/>

⁹⁸ *Calls For Creation of New SEZ in Shantou*, [online], Juan, D., 14/03/2013, China Daily Website, [accessed: 20-04-2015], available: http://www.chinadaily.com.cn/business/2013-03/14/content_16307866.htm

However, its success was somewhat hampered by relatively bad infrastructure and the location between the two Deltas which themselves became economic zones.⁹⁹

The total population of Xiamen is around 3.5 mil inhabitants. In 1992, Xiamen became one of the 10 Chinese cities with respect to its GDP growth that grew around 20% annually. In 2008, the GDP annual growth was still above the country's average – 11.1%. The other important industries are fishing, shipbuilding, textiles or finances and telecommunications. The top three industries are; electronics information, machinery and chemical processing. The share of the secondary industry accounts for almost 49% and the tertiary for 50.3%. The development zone of Xiamen consists of the Xiamen Port, Xiamen SZE, Xiamen Haicang Investment Zone and Xiamen Torch Hi -Tech Industrial Development Zone. The Xiamen Port ranks 8th among the Chinese ports and 30th worldwide. Since 1989, Haicang Zone is situated on a mainland and focuses on attracting high – tech technology, mostly from Taiwanese investors. Torch Hi –Tech IDZ consists of 11 hi-tech parks aimed on software, electrical engineering or biomedicine.¹⁰⁰

Unlike the Shenzhen zone, Xiamen's policies were quite restricted since it did not benefit from financial independency as Shenzhen did. Although, in 1988, Xiamen was granted provincial authority in economic management, the zone was still under the fixed-sum remittance regime and it did not obtain legislative authorities. Thus, Xiamen's growth was limited until 1994. Between 1985 - 1995, Xiamen had to pay the Fujian province RMB 100 mil and later RMB 490 mil per year, before the amount was decreased to RMB 49 mil. Xiamen's restricted legislative powers led to difficulty in attracting foreign investors since the city could not enact contractual protection of investment or real estates among others. At the beginning, Xiamen was hindered significantly by the provincial and central governments. Its zone area was kept below 2.5km², not allowed to expand to the whole island. The situation started changing after Deng Xiaoping visit in SEZs and his proclamation to expand zones even more. Due to a big pressure from many Party's leaders, Xiamen obtained the legislative power by 1994. Thus, it became the second Chinese city, after Shenzhen, with this authority. This way, Xiamen became less dependent on the Fujian province capital - Fuzhou. Xiamen, then focused on bringing in overseas Chinese investment, especially from Hong Kong and

⁹⁹ RAMON-BERJANO, C. 2011. *Taiwan and Fujian: Promoting a Closer Cross-Strait Relationship: Economic vs. Political Issues*, International Centre for China Development Studies, Hong Kong University, 2011, p. 1-18, [accessed: 13-04-2015], available: http://www.politica-china.org/imxd/noticias/doc/1299605696Taiwan_and_Fujian.pdf

¹⁰⁰ *Xiamen*, [online], China Briefing, [accessed: 13-04-2015], available: <http://www.china-briefing.com/regional-intelligence/xiamen.html>

Taiwan that represented 81% share of total FDI in 1996. Xiamen offered more favourable taxes to Taiwanese than to other overseas investors and the importance of Sino-Taiwanese relations was emphasized. In 1988, there were issued special investment agreements for the Taiwanese investors and opened three zones for them in Haicang, Xinglin and Jimei. Xiamen zone decided to orientate on the electronic sector within 1985 – 2000, however, the inflow of Taiwanese investment made the city authorities to change the plan and redirect to petrochemical industry.¹⁰¹

2.4.1. Xiamen Challenge and Future Development

Cheung W. (KPMG partner for Xiamen, 2010)¹⁰² evaluates Xiamen position and prospects as follows: *"During the next ten years, Xiamen will continue to build on its economic, educational, and scientific successes as it seeks to fulfill its goal of becoming and internationally recognized centre for tourism, trade, and technological development. As it works to expand its port facilities and further modernize its financial services, Xiamen will continue to maintain a stable and prosperous environment for foreign investors."*

The Xiamen SEZ is 12 times larger than it was in 1981. According to the China's 12 Five-Year Plan, Xiamen was chosen as regional center for reinforcing financial relations within the mainland and Taiwan. Further, it was decided to integrate Xiamen with other nearby cities in Fujian province, namely, Zhanzhou and Quanzhou to enjoy large-scale economy within the Golden Triangle.¹⁰³ The next possible development is to create the Kinmen-Xiamen SEZ. Kinmen is a small industrial island two kilometers far from Xiamen island. This step, which is proposed by Taiwanese and mainland Chinese investors, would increase Taiwan-Xiamen business even more.¹⁰⁴

Compared to Shenzhen, Xiamen has not reached its population limits and its location enables to merge with other mainland districts and cities. Relatively great share of GDP growth represents tourism, both from domestic tourists as well as foreigners. Another,

¹⁰¹ CHUNG, J., *Cities In Post-Mao China: Recipes For Economic Development in The Reform Era*, Routledge Publishing, 1999, p. 1-450, ISBN 0-203-97608-8.

¹⁰² KPMG China Expands Into Xiamen, Cheung, W., 2010, KPMG Report, [accessed: 13-04-2015], available: <http://www.kpmg.com/CN/en/IssuesAndInsights/ArticlesPublications/Documents/KPMG-China-Xiamen-201010.pdf>

¹⁰³ From 'Siberia' to Success Xiamen SEZ, [online], Zongyang, T., Meidong, H., 26/12/2011, China Daily, [accessed: 13-04-2015], available: http://www.chinadaily.com.cn/cndy/2011-12/26/content_14324828.htm

¹⁰⁴ Cross-Straits entrepreneurs call for Kinmen-Xiamen SEZ, [online], 09/06/2014, [accessed: 13-04-2015], available: <http://www.ecns.cn/cns-wire/2014/06-09/118121.shtml>

important, difference is that Xiamen is one of the cleanest and greenest Chinese cities thus with very favourable living conditions. Another strength, is Xiamen university that has expanded to mainland district Xiangan to increase the number of students and invest into better education.

2.5. The Hainan Special Economic Zone

The Hainan Island, located in the southeast tip of China, became the fifth special economic zone on April 13, 1988. Its starting position was different from the four previous zones for its low level of development. Hainan used to be mostly an agricultural area with almost no foreign trade and lowest per capita income from all the SEZs. Formerly it was under Guangdong province before it was allowed to become a province. Hainan is the largest special economic zone and the second largest China's island. The location is favourable for reaching easily Hong Kong, Taiwan and Japan. It has over 60 modern harbours which are spread around its 1500 km long coastline.

The Hainan's overall population is around 8.6b people. The main industries are agriculture, rubber, fishery industries and tourism. The capital city is Haikou and other important cities are Danzhou, Wenchang, Qionghai and Sanya- a favorite holiday destination. Unlike the other zones, Hainan's greatest disadvantage is its isolated position from mainland's supply chains and the poor electrical infrastructure does not allow to run any large-scale industries. The main two ports that ship goods to 24 countries and two airports are located in Haikou and Sanya. Hainan is connected with Guangdong province by a rail road bridge.¹⁰⁵

The whole island is divided into five economic districts. The northern district with the capital city Haikou, specializes in light industry, electronics, food and rubber products. The southern part with the center with Sanya, focuses on tourism and high-tech industry. The eastern district with Qionghai and Wenchang cities is agriculture and textile industries centre. The northwestern region concentrates on petrochemical manufacturing, aquatic products and mining of titanium. In the southwest, with Basuo city, there are produced heavy industry products and iron and steel mines are located there. More than 50% of Hainan's exports are made of agricultural and rubbery products. Hainan is very endowed with mineral ores, especially iron ore mines (cobalt and copper) in Shilou which is the eight largest in Asia. Shilou mine is to be enlarged and expected to produce more than 1 mil tons a year of iron. Eas

¹⁰⁵ *Understand China*, [online], [accessed: 19-04-2015], available: <http://understand-china.com/province/hainan/>

cost of Hainan is also rich in titanium with the reserves of 1b tons. Since the opening of the zone, there have been foreign oil and natural gas companies from Australia, France and the US. Moreover, Hainan Island has more than 30 different kinds of minerals (brown coal, shale oil or gold) that have not been exploited yet. Another Hainan's advantage is in pearl breeding technology which is the world's most advanced one.¹⁰⁶ Next, Hainan share of tourism and GDP has been increasing and expected to continue to do so in the future. In Sanya, there are favorite beaches and summer resorts with great share of Russian community.

2.5.1. The Preferential Policies

Most of the granted policies are the same as in other special economic zones except the province status that Hainan was given and longer land use leases (70 years). Own provincial status basically means that all policies are discussed with Beijing directly without the need to get Guangdong province approval first. A large portion of available land for rent was an advantage for Hainan opposed to other SEZs. The labor-cost were even lower at the beginning for the low human capital and labor skill development.¹⁰⁷

The preferential policies given to Hainan, supported the investment in capital construction. The provincial status allowed Hainan to exert own authority while borrowing abroad or exporting goods. All capital products, as well as materials and fuels, were free of import duties. While imported goods of daily used, including electrical appliances, were provided 50 % tax reduction. High-tech, industrial and agriculture companies were free of tax on profits during the first five years and 85 % tax reduction in the following five years. All foreign-funded enterprises are exempted from industrial and commercial consolidated tax in the first two years in which they make profit followed by the 85 % reduction in the next year. In the financial sector, People's Bank of China located in Hainan became Hainan's central bank and Haikou's branch started to be treated as foreign banks. These measurements allowed the province to use all the foreign exchange profit for the province policies.¹⁰⁸

¹⁰⁶ *Hainan Province- China's Largest SEZ*, [online], May 2th 1988, updated Feb 3rd 2010, Xiaobing, Y., Beijing Review website, [accessed: 19-04-2015], available: http://www.bjreview.com.cn/Cover_Story_Series_2010/2010-02/03/content_244683_3.htm

¹⁰⁷ ROLL, CH., 1991, A Comparison of Hainan with the Other Special Economic Zones, *The Rand Paper*, no. 3295, 1991, p. 1-44, [accessed: 19-04-2015], available: <http://www.rand.org/content/dam/rand/pubs/notes/2009/N3295.pdf>

¹⁰⁸ *Hainan Province- China's Largest SEZ*, [online], May 2th 1988, updated Feb 3rd 2010, Xiaobing, Y., Beijing Review website, [accessed: 19-04-2015], available: http://www.bjreview.com.cn/Cover_Story_Series_2010/2010-02/03/content_244683_3.htm

Another preferential treatments include tertiary industry in which the total amount of investment exceed \$5 mil are exempted from the income tax in the first profit making year followed by 50% reduction in next two years. Significant exemptions are offered to foreign investors in infrastructure which plan to invest more than 10 years. From the first to tenth profit making years there are no income taxes and 50% reduction from the eleventh to twentieth years. These infrastructure investments include mostly resort city Sanya and towns with high share of ethnic minorities. Products produced by foreign enterprises sold in Hainan are free of value-added tax with the exception of tobacco, alcohol and mineral oils. Furthermore, foreign enterprises are allowed to choose own business and managerial policies and structures. They are also allowed to issue bonds after the approval of Hainan central bank. In order to create a safe investment environment, all investments are protected by state laws and shall not be nationalized or expropriated.¹⁰⁹

According to the new Hainan plan, it wants to become a major international tourist destination by year 2028. As discussed earlier, Hainan counts a lot on tourism and agriculture since it has a natural advantage in tropical climate and long coastlines. Another reason is that Hainan is somewhat isolated from the mainland which creates a disadvantage compared to the other zones. To fulfil its top destination plan, Hainan provides visa-free entry and aviation rights. Hainan will also bring in more foreign travel agencies and international hotel management to create first-class tourist destination.¹¹⁰

2.6. The Kashgar Special Economic Zone

In May 2000, Kashgar in Xinjiang province, became the fifth special economic zone. Kashgar is the westernmost Chinese city and opens new opportunities for Central Asian trade. It lies in the proximity to Kyrgyzstan, Tajikistan, Afghanistan and Pakistan.¹¹¹ Building a SEZ in Xinjiang province is the China's plan for enhancing development in the Western region. Kashgar uses the Shenzhen model for its development. Although, there is still a lot to catch up in human development terms, the annual GDP for 2012 grew at 17.4% rate. Kashgar provides food and households products in exchange for raw materials. Nevertheless, there

¹⁰⁹ *Hainan Special Economic Zone*, Foreign Investment Regulations, [online], Official Website of Hainan Government, [accessed: 19-04-2015], available:

http://en.hainan.gov.cn/englishgov/INVEST/Policy/200912/t20091229_39688.html

¹¹⁰ *China's largest special economic zone celebrates 20th anniversary*, [online], 26/04/2008, Window of China website, [accessed: 20-04-2015], available: http://news.xinhuanet.com/english/2008-04/26/content_8056648.htm

¹¹¹ *Kashgar On The Move*, [online], 14/10/2013, Rippa, A., The Diplomat website, [accessed: 20-04-2015], available: <http://thediplomat.com/2013/10/kashgar-on-the-move/>

have not been any major Chinese or foreign investment enterprises setting up new branches yet.¹¹²

There are favourable tax incentives, as well as, other preferential policies. The enterprise income tax is 25%, with 20% for small enterprises and 15% for enterprises with the China's government support. The business tax is 5% and value added tax of 17% for goods in services.¹¹³

The possible challenge could be ethnic disputes between Han majority and Uyghurs (muslim minority originally coming from Turkey).¹¹⁴ There were few conflicts originated by the Uyghurs minority in Xinjiang province in the 1980s and 1990s. For this reason, the Chinese government decided to implement plan for the development which emphasis safety in the first place before 2009. However, the Chinese former president Hu Jintao changed the strategy and said that economic development will promote stability.¹¹⁵

¹¹² *Kashgar-The Next Economic Booming Hub- Analysis*, [online], 28/06/2013, Sandano, I., Eurasia Review – A Journal of News and Analysis, [accessed: 20-04-2015], available: <http://www.eurasiareview.com/28062013-kashgar-the-next-economic-booming-hub-analysis/>

¹¹³ BRUNSCHWEILER, A., 2014, Introduction to special economic zones in China, illustrated by the Special Economic Development Zones of Horgos and Kashgar (Xinjiang province), *Jusletter*, June 2014, p. 1-4, [accessed: 20-04-2015], available: http://www.lalive.ch/data/publications/Introduction_to_special_economic_zones_in_China.pdf

¹¹⁴ *Kashgar: New SEZ in Xinjiang*, [online], 25/01/2011, Mayer, A., China Urban And Development website, [accessed: 20-04-2015], available: <http://www.chinaurbandevelopment.com/kashgar-new-sez-in-xinjiang/>

¹¹⁵ SHAN, W., WENG, C., 2010, *China's New Policy in Xinjiang and its Challenges*, THE XINJIANG WORK Conference, vol.2, no. 3, 2010, p. 1-9, [accessed: 20-04-2015], available: http://www.eai.nus.edu.sg/Vol2No3_ShanWei&WengCuifen.pdf

3. A Comparison of SEZs and Analysis of China's Development

This part of the thesis compares the development of five SEZs: Shenzhen, Zhuhai, Shantou, Xiamen and Hainan. First, there is a cost-benefit analysis evaluating some major achievements of each zone, and then there is a comparison of SEZs initial positions. Then, SEZs are compared in terms of GDP, GDP per capita, FDI inflow and volume of exports in chosen years. There is also analyzed the development of China in GDP, FDI and export terms so SEZs can be set in a broader context.

3.1. The Cost-Benefit Analysis of the SEZs

There can be employed cost-benefit analysis in order to evaluate the impact of the zone on economic, social or political level of a particular country. There are various static and dynamic benefits related to the special economic zones. The benefits are greater and more visible for the poorer countries.

Between the static benefits belong job and income creation, growth and specialization in export-oriented goods, gains from a foreign exchange and gains for the government. The dynamic effects are not so straightforward and are more difficult to measured, however, they are more important for the long run development of the zone or country. The dynamic effects can be indirect job creation, improving of human capital and skills, creating more jobs for females, spreading of technologies, a leading example through demonstrating the best practise, and supporting the regional development. Among costs belong development of infrastructure, growth of bureaucracy and related growth in salaries, foregone taxes from domestic companies which move to the zone, some foregone import-duties. The common problem with the government founded zones is that these operate on the incentive and subsidy level.¹¹⁶

¹¹⁶ GOKHAN, A., JAMES, C., (2008)

Table 3. Achievements and Starting Position of SEZs

	Shenzhen	Zhuhai	Shantou	Xiamen	Hainan
Starting Position	A fishing village that benefited from connections with Hong Kong.	Connections with a former Portuguese colony of Macao. Zhuhai supported trade relations with Europe and Portuguese speaking countries.	Connections with overseas Chinese and benefited from Chaozhou culture.	Benefited from family ties with Taiwanese and thus contributed to a peaceful relationship with Taiwan.	A largest zone rich on natural resources and strategic position in SE Asia but stands aside the main infrastructure of the other SEZs.
Achievements	Introduced wage system. In 1987 adopted urban land right auctions. Own commercial system independent on state. Promoting a legal system and democratic voting for managers. In 1990 established first Stock Exchange in China.	Granted first local legislation in PRC. Fast development of infrastructure.	Shantou stands aside from regional and institutional centre compared to the other two Guangdong SEZs. The slowest pace and amount of innovations. First legislation on private enterprises in PRC.	A healthy business and competitiveness environment rich on innovations. First legislations in the use of marine districts, marine traffic management, and minimum standards of life protection.	Top-down institutional development from provincial level to the county and city level. As the first in PRC stopped using a dual-track reporting in production. Introduced easier registration of companies, large-scale infrastructure projects through stock investment.

Source: Yeung et. al (2009)¹¹⁷, own layout

The ILO emphasizes problems in many SEZs around the world for their poor labor conditions, unequal gender treatment and low wages for workers. In particular, there much lower wages for women, not sufficient training or investment in human capital, and employing trainees to reduce the labor costs. Moreover, there may be poorer health and safety standards as well as a lot overwork hours. Recently, there are widely discussed consequences for environmental pollution for employing low efficiency plants. Another important disadvantage of setting up any kind of zones is creation of unequal development within the country. The government resources can be reallocated from domestic education or infrastructure projects to incentives for the zones. The other great concern is about the level of technology and skills. It is not so obvious whether the zones promote lower-skill and technology development or they enhance growth in higher-skill industries. There also might

¹¹⁷ YEUNG, Y., et al. 2009, China's Special Economic Zones at 30, *Eurasian Geography and Economics*, 2009, no. 2, p. 222-240, DOI: 10.2747/1539-7216.50.2.222

be very large indirect employment effects that are difficult to assess. It is estimated that the global indirect employment effects are somewhere between 9 to 77 mil of jobs.¹¹⁸

3.2. SEZs Initial Position

The starting position of each special economic zone was very different in regards to their location, family or business ties, land area or population. The largest area has the Hainan SEZ, 33 920km², since it is a whole province. This is quite untypical for SEZ in general since the designated areas tends to be usually much smaller. The second largest are has Shantou with 10 346km², then Shenzhen with 2 021km², Xiamen – 1 516km² and the smallest area has Zhuhai – 1 266km². The SEZ's areas nicely illustrate that there cannot be applied any rule as the larger the area, the faster the economic growth.

Table 4. Initial land, population (1987, 2013)

SEZ	Initial Land Area (km2)	population 1987 (ths.)	Population 2013 (ths.)
Shenzhen	2021	556	10 630,00
Zhuhai	1266	442	1590
Shantou	10346	9401	5 400
Xiamen	1516	1061	3 730,00
Hainan	33920	6151	8671,5

Source: China knowledge, own layout¹¹⁹

The table above shows the population (ths. of people) in 1987 and 2013. Initially, the largest population had Shantou with 9,4 mil of people. The second largest had Hainan (note that Hainan was not SEZ in 1987 yet) with 6,1 mil people. Xiamen, ranking the third, with population over 1 mil people. Shenzhen's and Zhuhai's population was roughly similar about 0,5 mil people.

In 2013, the most populated SEZ was Shenzhen, the official population is over 10 mil people. Yet the numbers differ based on a database used or whom to include in the census. There are people officially registered in the city but not actually living there and then there are many commuting people but not living in the city. Hainan's population is more than 8,6 mil

¹¹⁸ GOKHAN, A., JAMES, C., (2008)

¹¹⁹ China Knowledge Website, [online], [accessed: 13-04-2015], available: <http://www.chinaknowledge.com>

people, then Shantou's is the third largest with 5,4 mil people and Xiamen has almost 4 mil citizens and Zhuhai has the lowest population of 1,6 mil.

Table 5. The Unemployment Rate (2013) and Monthly Average Wage

SEZ	Average employee wage per month	Unemployment rate (%) 2013
Shenzhen	3321	2,4
Zhuhai	2868	2,3
Shantou	1758	2,36
Xiamen	2645	3,2
Hainan	2766	n.a.

Source: China knowledge, own layout¹²⁰

The table above depicts the average monthly wage for an employee (RMB) and the unemployment rate (%) in 2013. The highest monthly wage is RMB 3 321 in the Shenzhen SEZ. The second highest is then in Zhuhai and it is RMB 2 868, the third in Hainan RMB 2 766, the fourth in Xiamen RMB 2 645 and Shantou has the lowest wage RMB 1758. One can assume that the reason for Hainan's average employee wage to be the second highest is that there are bigger salaries in the tourism and extraction of natural resources. The unemployment rates are very low around 3% in each of the zones. The lowest unemployment rates are in Zhuhai (2,3%) and Shantou (2,3%) followed by Shenzhen (2,4%) and Xiamen (3,2%).

3.3. GDP

The increase in GDP growth was immediate since the opening up policy and the SEZ's contributed to both, regional GDP growth and China's GDP growth.

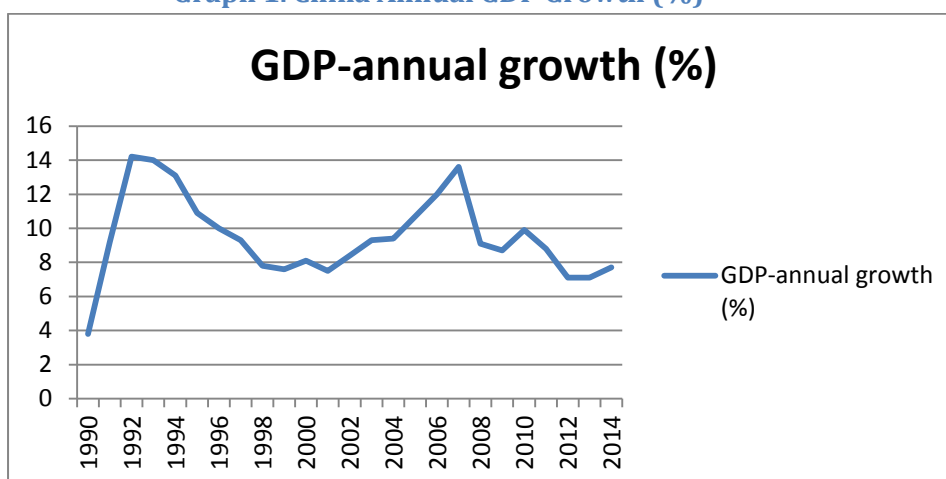
3.3.1. China's GDP Growth

China has experienced a long period of fast annual growth of GDP since 1978. Before the reforms, the annual average growth rate was around 6%, while after 1978, it has averaged around 9% with much less volatility of the economy. IMF (1997) argues that the main source of the growth has come from the increased productivity. From 1979 until 1994, the productivity growth has contributed more than 42% to GDP growth and during the 90's,

¹²⁰ China Knowledge Website, [online], [accessed: 13-04-2015], available: <http://www.chinaknowledge.com>

tertiary sector has accounted the most for greater productivity growth.¹²¹ In few years, China reached more than 13% growth rate mostly thanks to the another wave of market liberalization in the first half of the 90's. In the second half of the 90's, the growth rate was declining, with the lowest values succeeding the Asian crisis in 1997. After the joining the WTO, China experienced only twice two decimal growth rate in 2005 and 2007. Since 2008, there was a slight decrease due to the financial crisis and stagnation since 2012. Many argue that China will not experienced such a rapid growth as in the past again.

Graph 1. China Annual GDP Growth (%)



Source: World Bank, own layout¹²²

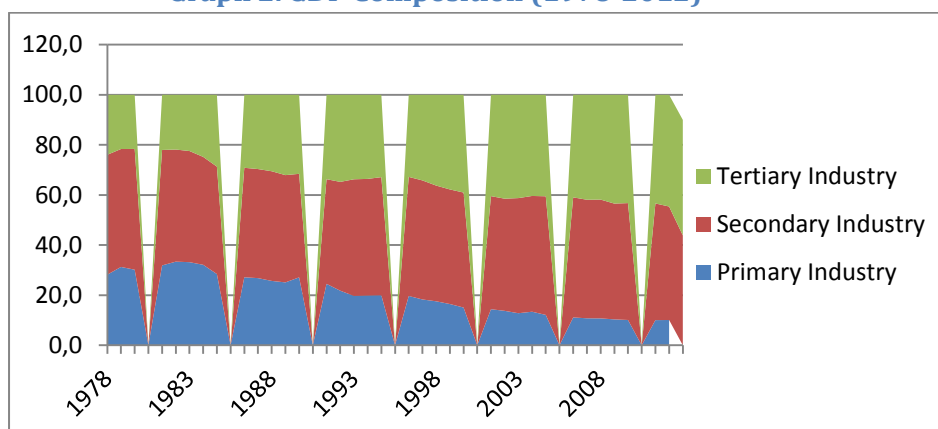
The figure below depicts GDP composition between 1978 and 2012. In 1978, the primary industry accounted for 28%, manufacture industry for 48 % and tertiary only for 24% of whole GDP. The following year, after the establishment of the first SEZs, the tertiary sector rose by 5 pp. and in 1988 crossed 30% threshold for the first time. After the accession to the WTO, the service sector accounted for more than 40% and reached 45% in 2012. Although, the share of manufacture industry has been slightly decreasing, its portion moves rather steadily somewhere between 41% and 48%. The primary industry share fell below 14% after joining the WTO and dropped below 11% since 2006. The reason for stable share of manufacturing on GDP composition is thanks to cheap labor force. However, with further liberalization and opening, it's expected to decline since the wages will probably continue rising due to greater competitiveness and increasing price level. The tertiary industry expanded greatly during the liberalization in the 90's, establishing SEZs, and joining the WTO.

¹²¹ ZHU, Z., KHAN, Y., 1997., Why Is China Growing So Fast?, *IMF*, no. 8, June 1997, p. 1-14, [accessed: 23/03/2015], available: <https://www.imf.org/EXTERNAL/PUBS/FT/ISSUES8/issue8.pdf>

¹²² GDP Growth (annual %), World Bank, [accessed: 23/03/2015], available: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

Nevertheless, China still has some major catching up in services since there are still considerable barriers to entry for foreign enterprises.

Graph 2. GDP Composition (1978-2012)

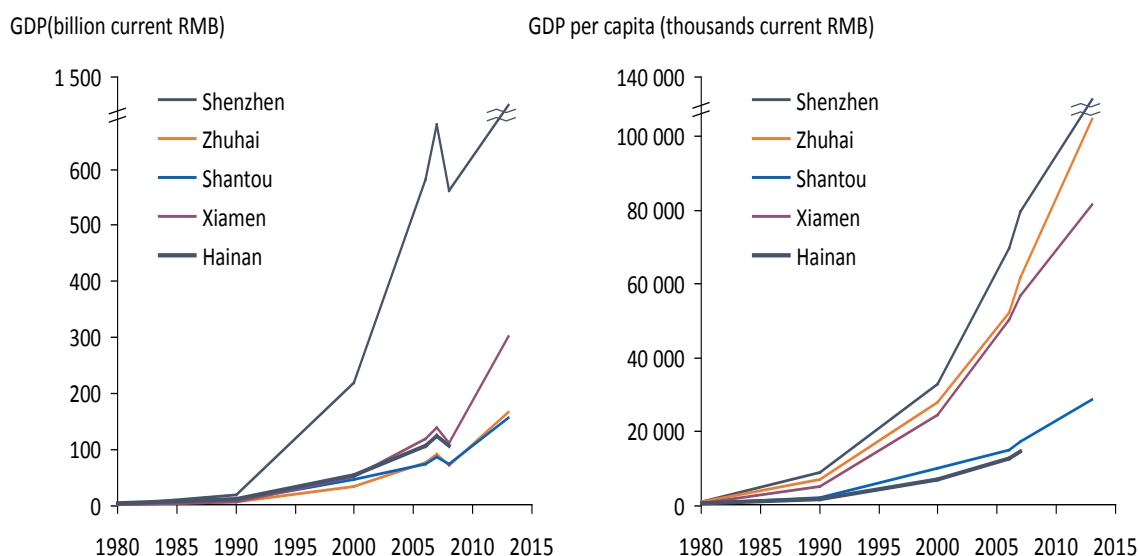


Source: National Bureau of Statistics of China, own layout¹²³

¹²³ Composition of GDP, *National Bureau of Statistics of China*, [accessed: 23/03/2015], available: <http://www.stats.gov.cn/tjsj/ndsj/2014/indexeh.htm>

3.3.2. SEZs GDP Growth

Graph 3. GDP and GDP per capita of SEZs



Source: National Bureau of Statistics of China, own computation and layout¹²⁴

In the year of the opening up the total value of GDP measured by current RMB of all SEZ was roughly RMB 2b and with Hainan which was not granted the SEZ status yet it accounted for almost RMB 4,85b. The reason why Hainan's GDP was relatively big is because of its population and the differences in the development were not so big yet.

A decade later, 1990, the overall GDP generated by all SEZs was almost 11 times bigger and represented RMB 44b. Shenzhen's GDP was the biggest with its RMB 17b and Hainan's the second biggest with RMB 10b. Yet, the GDP per capita was only RMB 1 562 compared to RMB 8 724 of the Shenzhen's one. Interestingly, Shantou had the third biggest GDP (RMB 7b) in 1990, while the second lowest GDP per capita (RMB 2 029).

In 2000, the total SEZ's amount of GDP was almost 9 times higher than in 1990 and represented RMB 399b. From this value, the Shenzhen's GDP was RMB 218b which accounted for about 55%. The Shenzhen's GDP per capita rose to RMB 32 800 which was an 3,76 increase compared to the 1990 level. Hainan's GDP was still in the second place and accounted for RMB 52b while the GDP per capita was the lowest from all zones and represented RMB 6 798. The third largest share on the total SEZ's GDP was the Xiamen's

¹²⁴ Data for Shenzhen, Zhuhai, Shantou, Xiamen, Hainan, *National Bureau of Statistics of China*, [accessed: 23/04/2015], available: <http://www.stats.gov.cn>

one and represented 12,5% and its per capita income was the also the third largest (RMB 24 481).

In 2006, the overall SEZ's income was RMB 951b which represented an 2,38 times increase compared to 2000. Shenzhen's GDP was RMB 581b and the increase on the SEZs income increased to 61% while its GDP per capita more than doubled. In 2006, Xiamen's¹²⁵ income surpassed the Hainan SEZ income and became the second biggest representing RMB 116b and the GDP per capita was 50 130 RMB. The lowest level of GDP was the Zhuhai's SEZ which accounted for RMB 74b but the GDP per capita level was the second biggest (RMB 52 185).

The following year, 2007, the overall level of GDP was RMB 1 115b which was 1,18 times bigger compared to the previous year. The pattern was the same as in 2006, the Shenzhen SEZ, being the biggest in GDP terms (RMB 680b) and in GDP per capita terms (RMB 79 645). The Xiamen's SEZ GDP was the second biggest with its RMB 137b and the third biggest GDP per capita (RMB 56 545). The Zhuhai's and Shantou' GDP was very similar, RMB 89b and RMB 85b respectively. Yet, the Zhuhai SEZ per capita GDP was the second biggest (RMB 61 693) and Shantou's the lowest (RMB 17 048).

For year 2008, there are no GDP per capita levels. The total GDP level was RMB 921b which represented a 17% drop compared to 2007. The China's GDP also lowered as the crisis lowered global trade's levels. The Shenzhen SEZ GDP decreased to pre-2006 year level and achieved only RMB 561b. Xiamen, ranking the second, had RMB 111b GDP which represented the same trend as Shenzhen's GDP growth. The Hainan SEZ GDP was RMB 106b which was a decrease compared to 2007 but it remained above the 2006 level.

In 2013, the total GDP of four SEZs (except Hainan) was over RMB 2074b which is an 225% increase compared to 2008. This rise in GDP suggests that the zones have recovered from the crisis since there was a drop in total value of GDP in 2008. Shenzhen's GDP was RMB 1450b which represented 70% share and an 258% increase compared to its 2008 level. Xiamen, being the second, reached GDP of RMB 301b and its share contributed by 14% to the overall SEZ's GDP with 263% increased compared to 2008. Zhuhai's and Shantou's share were similar, the first being 8% and the second 7,5%. Shenzhen's GDP per capita reached

¹²⁵ There are some differences in GDP per capita levels for the Xiamen SEZ varying on the source of information. These differences are due to the change in statistical population data run by China's Statistical Bureau.

RMB 133 947 and right behind was Zhuhai with RMB 104 800. Xiamen had RMB 81 572 and Shantou only RMB 28 661.

Shenzhen SEZ is the fastest growing in GDP and GDP per capita terms. Until 2000, Hainan was the second in GDP level but the third in GDP per capita for year 2000. From 2000 on, the Xiamen SEZ GDP was the second biggest after Shenzhen's. Yet, Xiamen's GDP per capita remained third after Zhuhai's GDP per capita. However, the Zhuhai SEZ GDP was either the lowest or second lowest before the Shantou's one.

The table below shows GDP composition (%) for each zone in 2013. The shares are very similar yet there are some differences. The Shantou SEZ has the largest share in primary industry which is 5,6% but the table does not show Hainan's share which would be probably greater. The second largest primary industry share has Zhuhai with 2,6%, then Xiamen with 0,9% and Shenzhen only 0,04%. Shantou has also the largest share in the secondary industry which is 52,2%, then there is Zhuhai with 51,1%, Xiamen- 47,5% and Shenzhen with 43,43 %. Not surprisingly, the largest tertiary industry share has Shenzhen with 56,53% and Xiamen with 51,6%. The other two zone's share are below 50% while Shantou has the lowest share of 42,2%. The Xiamen and Shenzhen SEZs are mostly orientated in services and high-tech development while the Zhuhai and Shantou SEZ's main focus is on the secondary industry.

Table 6. GDP Sector Composition

GDP composition (%)	Shenzhen	Zhuhai	Shantou	Xiamen
primary	0,04	2,6	5,6	0,9
secondary	43,43	51,1	52,2	47,5
tertiary	56,53	46,3	42,2	51,6

Source: China Knowledge Website, own layout¹²⁶

3.4. FDI

Foreign direct investment are often use as a mean to integrate the domestic market into the global economy. FDI has contributed significantly to China's economic growth. Special economic zones were one of the first areas which attracted FDI and brought into the country new technology and knowledge. More importantly, the new advanced technology can create a spillover effect and foster the development of other regions. Moreover, multinational

¹²⁶ China Knowledge Website, [online], [accessed: 13-04-2015], available: <http://www.chinaknowledge.com>

enterprises can increase the competition and promote the growth of the domestic companies as well.

Prior to 2001, there were some minimum requirements on what kind of FDI can flow to the country. China allowed only FDI bringing in an advanced technology but this condition was relaxed after the accession to the WTO. The relaxed requirements after 2001 were about export limits, technology and R&D, or foreign exchanges. FDI come to China in the form of cooperative enterprises, joint ventures or foreign-owned enterprises.¹²⁷ Most of FDI originate in Hong Kong, Taiwan, Japan, USA or some EU countries. In the first two decades, most of the FDI (around 80 %) were in the form of greenfield investments in the industrial industries. In the tertiary sector, largest volume of FDI was in the real estate sector. China officialy promote FDI for these reasons: to change old traditional agriculture method into the modern ones, to support industrialization, energy sources, initiate and develop advanced technology sectors and R&D, use advanced technology to transform all old functioning industries, start promoting environmental protection and promote renewables, stimulate export-orientated industries and then develop industries in the Western region.¹²⁸

In 1986, there were introduced more favourable policies and tax incentives for export-oriented joint ventures. The same year was enacted Provisions of the State Council of the People's Republic of China for the Encouragement of Foreign Investment that is also known as '22 Article Provisions.' The article provisions permitted to import raw materials, to engage in the foreign exchange, and simplified the process of getting licences. Moreover, PRC guaranteed more autonomy on the local governements for the join-ventures. There were some extensions to the regulation that stated the importance of wholly foreign-owned enterprises for the domestic economy growth.¹²⁹

In 1990, the Amendments to the Join Venture Law were approved. The Amendments allowed non-Chinese to become Chairman, enlarged the scope of permitted businesses, and discharged the upper limit for registred capital. In 1994, PRC developer a plan to draw FDI into agriculture, raw materials, energy sector and infractructure. PRC divided the projects into

¹²⁷ The laws passed to regulate FDI are following: the Law of the PRC upon Foreign Wholly Owned Enterprises, the Law of PRC upon Sino-Foreign Joint Ventures, the Law of PRC upon Sino-Foreign Cooperative Enteprires and the Guiding Directory on Industries Open to FDI. (Long, 2002, p.4)

¹²⁸ LONG, G., 2002. China's Policies on FDI: Review and Evaluation, *Development Research Center of the State Council of the People's Republic of China*, 2002, p. 1-22, [accessed: 26-04-2015], available: http://www.petersoninstitute.org/publications/chapters_preview/3810/12iie3810.pdf

¹²⁹ FUNG, K.,C., et al., 2002, *Foreign Direct Investment in China: Policy, Trend and Impact*, paper for conference: China's Economy in the 21st Century on June 24-25, 2002, Hong Kong, p. 1.34, [accessed: 26-04-2015], available: <http://222.255.132.18:8085/Portals/0/Docs/5315157-wp1049.pdf>

three categories. The encouraged projects are infrastructure, agriculture and manufacturing. The restricted projects were represented to some technology oriented FDI or exploitation of rare natural resources. The prohibited projects are those which would imperil the national security, public interest or health. During the 1980s and first half of the 1990s, the main origine of FDI was from the overseas Chinese, from Hong Kong, Taiwan and also from other Southeast Asian countries.¹³⁰

After 2001, there were some structural changes in FDI inflow. Although, FDI are still an important contributor to the China's foreign trade and investment, the share and importance is not as great as it was in the first two decades after opening up. Contrary to the period before 2001, FDI flowing into the service sector are larger than industry oriented FDI. Moreover, raising labor and wage costs have changed FDI destination and FOE have started shifting their investment westward. In the 2000s, FDI have begun to grow faster in the Central and Western region. This is good trend for PRC since it should promote more balanced regional growth. There are some concerns about the raising labor costs and the shortage of high-skilled workers. In addition, there is an increasing competition from the Chinese companies and perceived non-equal treatment towards FOE in the policy plans.¹³¹ In 2008, the OECD Investment Policy Review of China influenced the further direction of FDI policies. The State Council chose to better align FDI with the domestic preferences as fostering less developed regions, promote innovations or ameliorate industry technology. The most important change is simplifying of approval procedure for FDI projects and mergers for FOE were permitted. The recent trend is outward foreign direct investment (OFDI) that was an answer to the financial crisis. Majority of OFDI is by state-owned companies yet there is discussion to allow private small and medium enterprises participate in OFDI as well.¹³²

3.4.1. China's Trade Openness

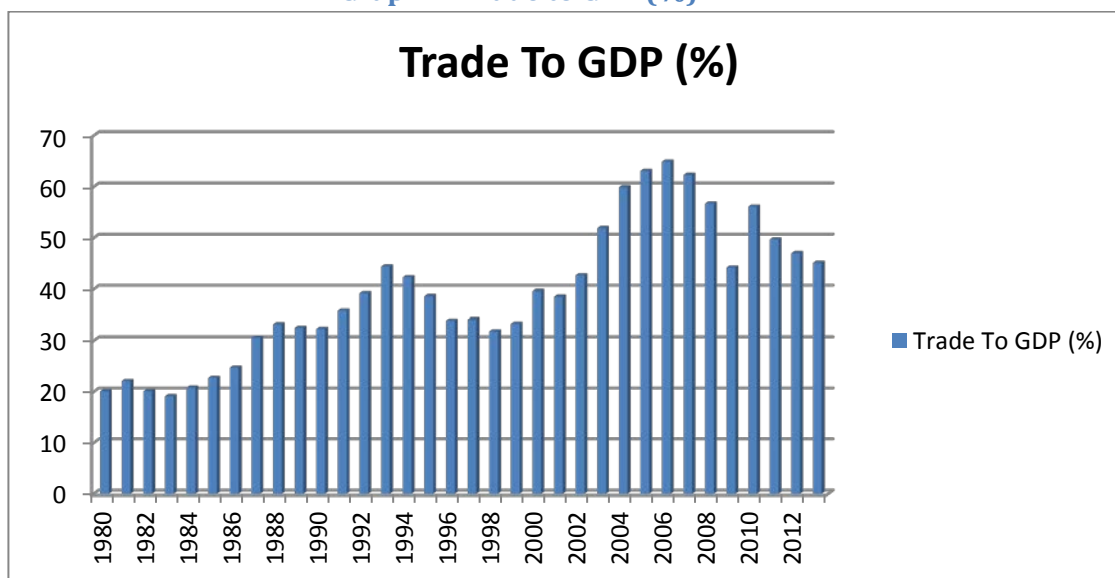
China has strong incentives to sustain the openness and involvment into the international trade. Figure below shows share of merchandise trade as a percentage of GDP which can be interpreted as a trade openness. PRC's trade openness is increasing and expected to continue so.

¹³⁰ FUNG, K.,C., et al., (2002)

¹³¹ PRC does not participate in the WTO Government Procurement Agreement (GPA) which means that the governemnt is not obliged to enter procurement for the foreign eneterprises. (Davies, 2013)

¹³² DAVIES, K., 2013. China Investment Policy: An update, *OECD WP on International Investment*, 2013/01, OECD Publishing, p. 1-77, [accessed: 26-04-2015], available: <http://dx.doi.org/10.1787/5k46911hmvbt-en>

Graph 4. Trade to GDP (%)



Source: World Bank, own layout¹³³

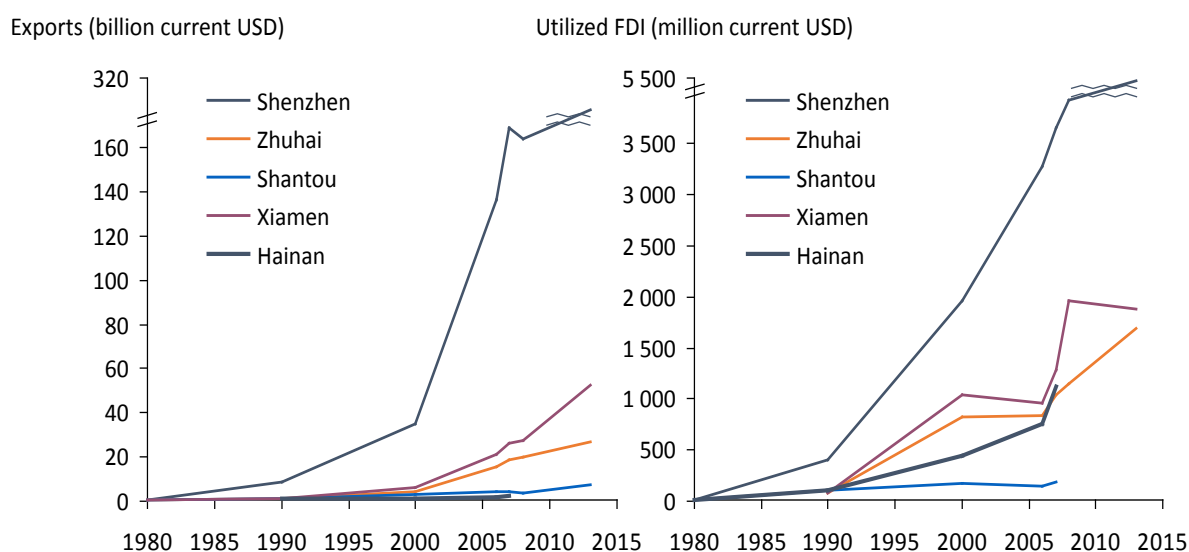
China has undergone a rapid liberalization in trade since the beginning of the reforms. Only two years after the beginning of the reform period, the trade openness was 20% and then continuously increasing from 1984 when the SEZs were established until 1993. A slight decrease in the first half of the 90's was a result of prevailing rigidities in some markets, especially in services and banking. However, the biggest opening of the markets and increased number of imports was, according to the expectations, after the accession to the WTO. Only interrupted by a small drop due to the financial crisis in 2008. Greater trade to GDP ratio leads to increased productivity in tradables and non-tradables. Yan et al. (2003)¹³⁴, argue that there is a strong positive correlation between the increased trade openness and increased productivity in tradable sector. Moreover, greater specialization thanks to the increased competitiveness leads to the greater productivity.

¹³³ Merchandise Trade, *World Bank*, [accessed: 14/03/2015], available: <http://data.worldbank.org/indicator/TG.VAL.TOTL.GD.ZS>

¹³⁴ YAN, I., et al., 2003, Openness and Productivity in China, *City University of Hong Kong Paper*, 2003, p. 63, [accessed: 14/03/2015], available: <http://cerdi.org/uploads/sfCmsContent/html/203/Chong.pdf>

3.4.2. SEZs FDI Inflow

Graph 5. SEZs FDI Inflow and Export Growth



Source: National Bureau of Statistics of China, own computations and layout¹³⁵

The impact of SEZs was almost instant after China opened to free trade. In 1981, the first four SEZs altogether contributed about 60% to the overall FDI amount in China. The greatest share in FDI level belonged to the Shenzhen SEZ which accounted for almost 50 % out of these 60% whereas the remaining zones accounted about 3% each. In 1984, the total SEZs share on China's FDI inflow decreased to 26%. This reduction in their share was caused by opening of coastal cities and introducing other kinds of zones as discussed earlier. A year later, their share decreased even further to 20%.

In 1990, Shenzhen share on FDI was the highest from all the SEZs and accounted for about 53% with Hainan being the second with its share of 13,7%. The reason for Hainan to be the second largest recipient of FDI inflow from all the SEZs is that it was opened as SEZ two years before thus the FDI in infrastructure were large.

At the turn of the millennium, all shares in FDI inflows increased to roughly \$ 4404 mil yet there were considerable differences between each of the zones. The smallest increase in share of 3,75% experienced the Shantou zone. In comparison to the year 1990, its amount of FDI increased only about 1,68 times which was the smallest increase from all of the SEZs.

¹³⁵ Data for Shenzhen, Zhuhai, Shantou, Xiamen, Hainan, *National Bureau of Statistics of China*, [accessed: 23/04/2015], available: <http://www.stats.gov.cn>

The reason is that Shantou's location is not so advantageous compared to the rest of the zones. Therefore, there might be changes as it was said before and Shantou may join with other two nearby cities to create one larger special economic zones to seize the opportunities. Shenzhen share on total SEZ FDI level decreased below 50% and represented roughly 44,5%. Hainan's share decreased to 9,76% and rose four times compared to year 1990. The largest increase experienced Zhuhai and Xiamen SEZs, their amounts rosed by 12 and more than 14 times respectively, compared to 1990.

In 2006, Shenzhen's share on total amount of SEZ's FDI rose back to 55% and increased 1,66 times compared to 2000. The Shantou zone represented to smallest share again and the amount of FDI even decreased by almost 16% compared to 2000. The Xiamen and Zhuhai SEZs represented the other two most contributing zones right after Shenzhen. The Xiamen's share on SEZs FDI accounted for 16 %, Zhuhai's share almost 14% and Hainan's share 12,6%. Yet, Xiamen's levels of FDI decreased by 7,5% compared to 2000 and Hainan's share increased 1,73 times.

In 2007, the total amount of SEZs FDI was \$7254,62 mil which accounted for 22% increase compared to the previous year. The Shenzhen amount of FDI was roughly \$ 3662 mil which represented 50% share on total SEZ's FDI inflow yet it lowered by 5 pp. compared to the previous year. The Shantou SEZ increased FDI inflow by 23% compared to 2006 yet it represented only 3,4% increase compared to 2000. The other three SEZ's FDI inflows were more or less same. The second largest FDI recipient was Xiamen and its share was 17,54%, Hainan, being the second, contributed by 15,4% share and Zhuhai 14,2% share.

For the last observed year, 2008, there are data only for three SEZs, therefore a comparison is not possible yet it is quite probable that there were similar trends as in previous 30 years. All, Shenzhen, Zhuhai and Xiamen FDI inflows, increased compared to 2007 and represented \$3929, \$1138 and \$1955 mil respectively. The annual increase for Shenzhen was 7,29%, 10,7% for Zhuhai and almost 54% for Xiamen compared to 2007.

When we compare FDI growth between the years 2000 and 2008 for Shenzhen, Zhuhai, Xiamen and 2000 and 2007 for Shantou and Hainan, the largest growth was 260% for the Hainan SEZ yet the overall amount was \$1120 mil in 2007 which was the third highest that year. The second fastest growing recipient of FDI is the Shenzhen SEZ which amount increased by 100% compared to its 2000 level. Yet, Shenzhen's amount of FDI (\$3929 mil in 2008) was the biggest from all the other SEZs and almost as twice as big as the amount of the

second largest FDI inflow destination. The Xiamen SEZ has the third fastest growing FDI inflow share, roughly 90%, compared to year 2000. Although, it is ranking third, its amount is the second largest after Shenzhen. The Zhuhai SEZ FDI inflow grew by 39% compared to its 2000 level and the Shantou SEZ inflow only by 3,6%.

In 2013, the total amount of SEZ's FDI inflow reached \$ 9178 mil without the Hainan SEZ. Shenzhen contributed by 59% which was an increase of 39,2% compared to 2008. Xiamen's value of FDI inflow was \$1 870 mil and the share accounted for more than 20 %. Yet, there was a drop by 4,3% in FDI inflow compared to its 2008 year value. Zhuhai's FDI inflow was just a bit lower, \$ 1690 mil, and the share was 18,4% which was the biggest increase (48,5%) compared to 2008.

The biggest increase in FDI inflow compared to 2000 year's level is Hainan's, then Shenzhen's and Xiamen's as the third. Nevertheless, when we take total amount of FDI measure in milion current \$, the Shenzhen is ranking first, followed by Xiamen and Hainan is at the third place. Yet, we don't have data for year 2008 so we cannot tell whether Hainan is really above or below the Zhuhai SEZ. The Shantou SEZ is the weakest from them all both in the pp. increase and overall amount. More detailed cost-benefit analysis would be required to assess whether this zone is profitable or not. As it was discussed few times before, the reason is Shantou's off-center location so most of the FDI flow rather to Zhuhai and Shenzhen. Another important thing to keep in mind is that Hainan is province with an area more than 33 thousand km² and is a subject of analysis with other SEZs which were set up on a city-level, thus its relative success may be much lower.

Shenzhen is undoubtedly the most successful SEZ in attracting FDI. In 2008, FDI came from 82 different countries compared to the beginning when the only foreign investors were from Hong Kong and Macao. The FDI growth was seen in the rapid decline of agriculture production which was only 0,1% in 2007, while 37% in 1980. Yet, the share of SEZ's on China's FDI was decreasing since 1984 when 14 coastal cities were opened to the foreign trade. ¹³⁶

¹³⁶ YEUNG, Y., et al., (2009)

3.5. SEZs Exports and China's Foreign Trade

Foreign trade is the greatest source of China's and SEZs economic growth and success. Both SEZs and China build their successful strategy on export-led growth. China has opened up even more to foreign trade since its accession to the WTO. On the other hand, SEZs might have lost to some degree their advantage which they had before the accession over other China's cities.

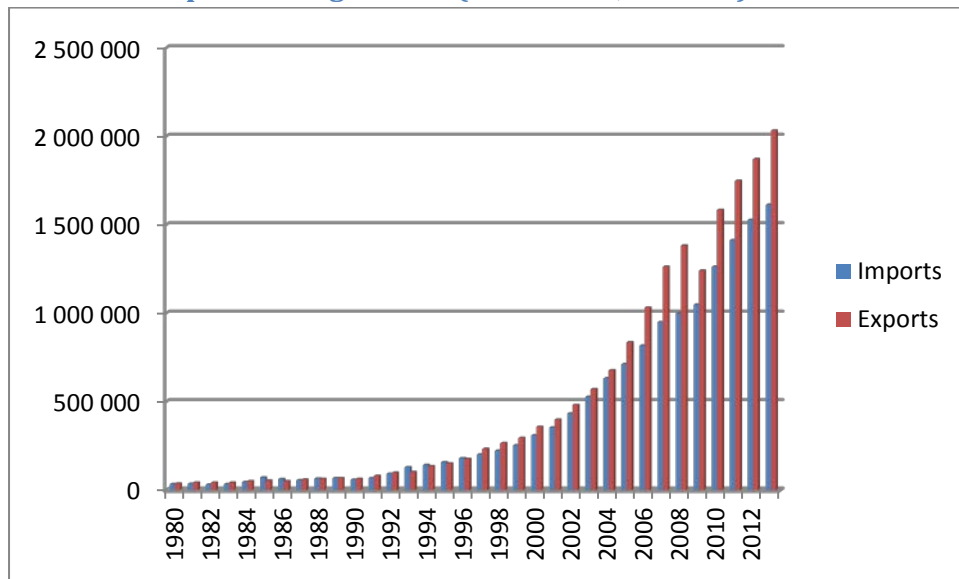
3.5.1. China's Foreign Trade

China's exports and imports have rose steadily since 1980 until 2013 as its share in global trade has increased from less than 1% in the beginning of the reforms to more than 10% in 2013. The growth in trade has increased in the 1990's as a result of removing of trade controls, lowering in tariffs and implementing other trade reforms. After the entry to the WTO, the rate of contributions to trade growth has expanded significantly. The import value accounted for \$34 059 million in 1980. Whereas, in 2001, the value was 10 times bigger and in 2013, the import value was more than 4,5 times bigger than in 2001. Exports rose faster with the small decline in 2009 due to the financial crisis. In 1980, the export value was \$37 215 million, whilst, 13 times as big in year of the entry to the WTO, and 4,2 bigger in 2013 compared to 2001.

The composition in foreign trade has changed completely. In the 1980's, the most traded commodities were manufactures, while light industrial and textile goods in the 1990's. Since 2001, the exports were more in high-tech and information technology. Moreover, the share of foreign and private enterprises exceeded the number of state-owned enterprises in foreign trade.¹³⁷

¹³⁷ *China Foreign Trade*, 2011., China Embassy Government White Paper, December 2011, Beijing, [accessed: 23/03/2015], available: <http://www.china-embassy.org/eng/zt/bps/t943740.htm>

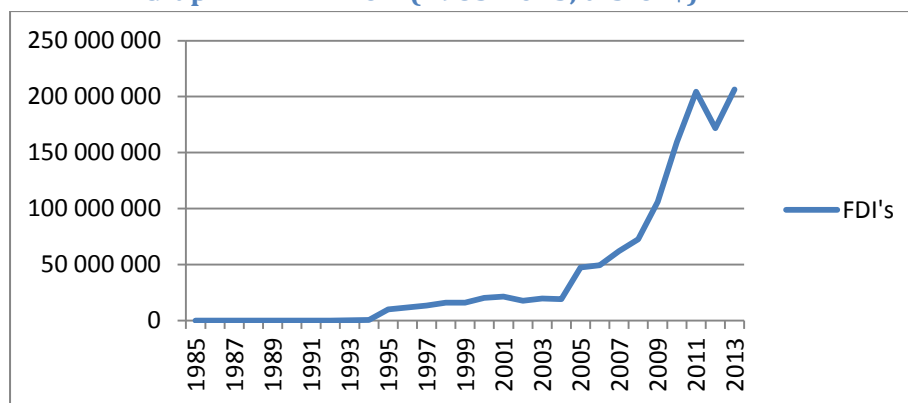
Graph 6. Foreign Trade (1980-2013, mil. of \$)



Source: World Bank, own layout¹³⁸

Before establishing the SEZs, the inflow of FDI's was basically zero. First significant inflow was in 1985, when FDI's value was \$14mil. Then, the FDI's inflow rose steadily but relatively slowly until 1995 when it represented \$ 9,9bln. First four years after the accession, the inflow increase was rather slow until 2005 when it started to increase to peak in 2013 when the inflow accounted for \$206bln. The majority of FDI's inflow comes from Hong Kong, Taiwan, Japan, Korea, Malaysia and the rest from the EU and US.

Graph 7. FDI Inflow (1985-2013, ths. of \$)



Source: World Bank, own layout¹³⁹

¹³⁸ Exports and Imports at constant US\$ 2005, *World Bank*, [accessed: 23/03/2015], available: <http://data.worldbank.org/indicator/NE.EXP.GNFS.KD> and <http://data.worldbank.org/indicator/NE.IMP.GNFS.KD>

¹³⁹ Primary Income On FDI, *World Bank*, [accessed: 23/03/2015], available: <http://data.worldbank.org/indicator/BX.KLT.DREM.CD.DT>

China is the fastest growing export destination for EU trade but it is also a subject of most anti-dumping procedures by the EU. The EU is the biggest Chinese trading partner. Overall trade between the two has been enabled thanks to the Chinese WTO membership and bilateral trade agreement with the EU. Although, the bilateral trade is increasing, there are still many barriers in services and low rate of investments. The EU criticizes lack of transparency, poor enforcement of intellectual property rights and government interventions into the economy.¹⁴⁰

3.5.2. SEZs Export

At the beginning of the establishment of special economic zones (1980), the exports values were very low since it took some time to attract foreign investors and launch export-orientated companies. The Zhuhai and Shenzhen SEZs had the worst starting position at the terms of export volumes. The biggest export volume had Shantou with its \$0,251b and Xiamen with \$0,082 b. There are no values for the Hainan SEZ since it was founded 8 years later so there was basically no export in 1980.

A decade later, in 1990, the total export value of all SEZs reached \$10,733 b. Shenzhen's share on the total export volume was 75,9% and Zhuhai's share only 4,5%, yet these two zones had the same starting position in 1980. Shantou, which was the first in export volume a decade earlier, had share on total exports 7,8%.

In 2000, the total export value increased by 442% over the last decade and reached \$47b. Shenzhen's share stayed the biggest and accounted for 72% which meant the exports expanded by 4,24 times since 1990. The Xiamen SEZ became the second biggest in export volume and represented 12,39% and export growth 7,5 times. Zhuhai's and Shantou's share were 7,6% and 5,4% respectively. Hainan's share on exports remained very and accounted only for 1,69 %.

In 2006, the exports rose by 370% over the last six years and reached value of \$176b. Shenzhen export's share was incredible 77% and increased 3,9 times over the last six years. Xiamen, ranking second, had export value of \$20b and the share was 11,6% which was 3,4 times higher compared to year 2000. The third biggest SEZ in the export terms was Zhuhai and its share became 8,4% which was roughly 4 times increased over six years. Shantou's

¹⁴⁰ China, *European Commission*, [accessed: 23/03/2015], available: <http://ec.europa.eu/trade/policy/countries-and-regions/countries/china/>

share decreased by 3,5 pp. since 2000 and represented thus only 1,9%. Hainan's export value was just \$1,3b and its share has not even reached 1%.

The following year, 2007, the total SEZ export value was \$218b and the annual growth rate was 24%. Shenzhen's export reached \$168b and the share stayed roughly the same (77%) and its annual growth rate was 23,9%. Xiamen's exports value became \$26b and the share on total exports represented 11,7% and Xiamen's annual growth rate was a bit higher compared to Shenzhen - 24,9%. The Zhuhai SEZ's exports achieved \$18b which represented 8,4% share and annual growth of 24,4%. Shantou's export volume remained almost the same and represented 1,79% share with annual growth of 12%. Hainan's exports remained low with the value of \$1b and share of 0,84% only.

In 2008, although the total export value is without the Hainan SEZ, we can still assume that it declined due to the crisis compared to the previous year provided the Hainan's export value stayed more or less the same. Shenzhen export volume dropped by 2,8% to the value of \$163b and the share was 76%. The Shantou SEZ export volume dropped by 16,2% and its share thus represented only 1,5%. Whereas, Xiamen and Zhuhai still grew in exports annually. Xiamen's export value was \$26b which represented 12,6% share and the annual growth was 5,5%. Zhuhai's exports reached \$19,730 b and its share was 9% with annual growth of 6,7%.

In 2013, the SEZ's export value was \$ 391b without the Hainan SEZ. Shenzhen was again the first in the export volumes and its share accounted for 78% with an export growth of 86% compared to 2008. Xiamen's export value was \$52b and Xiamen had again the second largest share of 13%. Zhuhai's export volume increased by 34,8% compared to 2008 and the share reached 6,8%. Shantou's export value was \$6,6b, thus the share only about 1,6%, yet there was 94% growth compared to 2008.

Since, the total SEZ exports grew annually until year 2007 with a small drop during the following year due to the crisis. Shenzhen's share on the SEZ's exports remained roughly the same since 1990 and it was almost about 76%. So we can say that the Shenzhen SEZ is the most successful one even in the export volume terms. Since 2000, Xiamen has become the second most successful SEZ with the share about 12%. Zhuhai, ranking third, has its share on total SEZ exports around 8,4% and in 2008 was the fastest growing SEZ in exports. On the other hand, both Hainan and Shantou's share are very low compared to the first three zones and do not contribute much. While, Shantou's share was the second biggest in 1990 and in

2000 still represented 5,4%. Hainan's shares does not reach even 1% which can be caused by many reasons, one can be its position that stands a little apart and there are many export orientated zones in the mainland which have better infrastructure than Hainan. The second reason may be that tourism is a very big part of its GDP which does not count to the exports.

4. Model

The model employed measures the effects of three choosen SEZs compared to 33 other Chinese provincial cities and other cities specially designated in the state plan. The cities used as a comparison base belong to open coastal cities or cities with other types of zones, such as, high-tech parks.¹⁴¹ Thus, model enables to compare SEZs with other zone-based cities and analyse the contribution to GDP per capita growth within this pre-selected group of cities. The selected SEZs are Xiamen, Hainan and Shenzhen. As it is shown in a comparison part, Xiamen and Shenzhen are the most important zones and Hainan is the largest SEZ. Shantou's economic performance is very low and there are no available data as in the case of the Zhuhai zone.

4.1. Data description

There are several economic factors influencig the city-level gross domestic product per catpita, these are; foreign direct investment inflow, population, trade openness. While some variables are straightforward to measured, for others we use proxies, such as; shares of imports and exports on GDP to measure trade openness, and investment in fixed assets as a proxy to FDI. For the lack of available FDI data for each zone for observation years, the proxy has to be introduced. Investment in fixed assets are defined as "*investments in construction and purchases of fixed assets*". It shows the growth and volume of these investment.¹⁴² There reason for using the FDI proxy is because FDI are major source for

¹⁴¹ Among cities especially designated in the State Plan belong for example Shanghai, Beijing, Tianjin, Dalian, or Guangzhou.

¹⁴² China Statistical Yearbook 2014, [accessed: 26-04-2015], available: <http://www.stats.gov.cn/tjsj/ndsj/2014/indexeh.htm>

investment in fixed assets in China. This FDI proxy is an often employed method as for example by Leino suggest in the study for OECD (2014)¹⁴³.

The following equation is simple economic model which analyses the effects of all the explanatory variables on the endogenous variable city - level GDP per capita.

$$GDP_{pc} = f(FDI/GDP, popul, trade\ openness, SEZ)$$

where

- GDP_{pc} (or GRP_{pc} in STATA table results) is endogenous variable of log city gross product per capita (GPPC) in current RMB milion. The GDP of each city was divided by its population and then logarithm was taken to better interpret the results.
- FDI/GDP is an explanatory variable measured in current RMB thousand. To measured FDI inflow, there was employed proxy of investment in fixed assets. The expected effect on GDP_{pc} is positive since the greater the FDI inflow, the greater the GDP_{pc} growth.
- Population is another exogenous variable expressed in log terms. The expected result is negative and insignificant, whereas GDP has to be divided among more people.
- Trade openness was originally measured in current ten thousands of US\$. Therefore a yearly average exchange rate was used to convert it on RMB. Trade openness is defined as the sum of exports and imports divided by GDP.
- SEZ is a dummy variable for SEZ, whereas 33 cities are treated as non-SEZ and three (Shenzhen, Xiamen, Hainan) as SEZ.

Table 7. Data Description

Variable	Obs	Mean	Std. Dev.	Min	Max
popul	360	7032119	5318546	1377900	3.36e+07
GRP _{pc}	360	60190.07	58729.9	8442.955	467041.3
openness	360	.5390666	.6477147	.0294371	4.734785
FDI_GDP	360	58.62763	20.44985	17.24806	146.0071

Source: results by using STATA, own computations

¹⁴³ LEINO, T., ALI-YRKKO, J., 2014. How Does Foreign Direct Investment Impact on Real Investment by Foreign-owned Companies? Firm-level analysis, 2014, Bank of Finland, p. 1-23, [accessed: 26-04-2015], available: <http://www.oecd.org/daf/inv/2014-FDI-Statistics-Workshop-Panel-1-Ali-Yrkk-Leino.pdf>

The raw data were collected from China Statistical Yearbooks for years 2003 – 2013 for Shenzhen, Xiamen, Hainan and other 33 provincial cities or specially designated cities in the state plan of PRC. There are retrieved following variables for panel data which are cross-sectional and time series. Panel data allows to measure differences across observable cities within the specified time frame. Panel data are balanced and consist of 360 observations which is a sufficient number of observation to get predicative results.

4.2. Methodology and model

Given the nature of the data (panel data), we employ fixed effects estimation econometric procedure to estimate the effect of *FDI*, *openness*, and *SEZ on GDP*. Fixed effects eliminate omitted variable bias for all 36 cities assuming that unobservable factors for all the cities do not vary in time. Fixed effects analyze the link between the exogenous and endogenous (growth rate of GRPpc) within entity, in this case- whithin choosen cities. Whereas, each city has different individual traits. The fixed effects method is used when there is an assumption that something in the entity (city) characteristics influence the endogenous or exogenous variables and we control for this. In this way, we control for time-invariant characteristics and we only reap the net effect on the endogenous variable.¹⁴⁴ The model is computed in econometric program STATA.

The model can answer how SEZs stay in a comparison to other most developed China's cities and answer the question whether their contribution is still so high after 2003. The hypothesis is that their contribution to GRPpc is positive.

Table 8. Correlation of coefficients

	GRPpc	FDI_GDP	openness	popul
GRPpc	1.0000			
FDI_GDP	-0.3310	1.0000		
openness	0.6361	-0.4791	1.0000	
popul	-0.1083	0.0901	-0.0430	1.0000

Source: STATA, own computations

¹⁴⁴ TORRES-REYNA, O., 2007, *Panel Data Analysis Fixed and Random Effects using Stata*, Princeton University, Dec. 2007, p. 1-40, [accessed: 26-04-2015], available: <http://www.princeton.edu/~otorres/Panel101.pdf>

As expected the highest correlation coefficient is between trade openness and GRPpc.

Table 9. F-statistics, R-squared values

Number of obs = 360

F(4, 355) = 28.89
 Prob > F = 0.0000
 R-squared = 0.3354
 Root MSE = .58544

Source: STATA, own computations

Having used the fixed effects estimations, 33,3% of the variability of dependent variable is explained by model specification which is given the number of observables and availability of data is sufficient.

4.3. Results

$$LGRPpc = 10.27 + 0.004FDI_GDP + 0.709openness - 0.0098lpopul - 0.2154SEZ$$

Table 10. Results of Model

	Robust					
lGRPpc	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
+-----						
FDI_GDP	.0041271	.0016614	2.48	0.013	.0008596	.0073945
openness	.7099572	.0702359	10.11	0.000	.5718265	.848088
lpopul	-.0098508	.0520207	-0.19	0.850	-.1121583	.0924567
SEZ	-.2153609	.1279804	-1.68	0.093	-.467056	.0363343
_cons	10.27266	.8136775	12.62	0.000	8.672425	11.87289

Source: STATA, own computations

FDI is statistically significant on 5% significance level. FDI_GDP increases by 100% (1 unit) leads to an increase of 0,4 % in LGRPpc, ceteris paribus. Trade openness is statistically significant on 1% significance level. This means that openness significantly contributes to the growth of LGRPpc. Increasing the level of openness by 100 % (1 unit) increases the LGRPpc by 70,9 %, ceteris paribus. Trade openness is the most significant

variable influencing GDP. Population effect is negative, increasing the amount of population, negatively influence the LGRPpc as we expected.

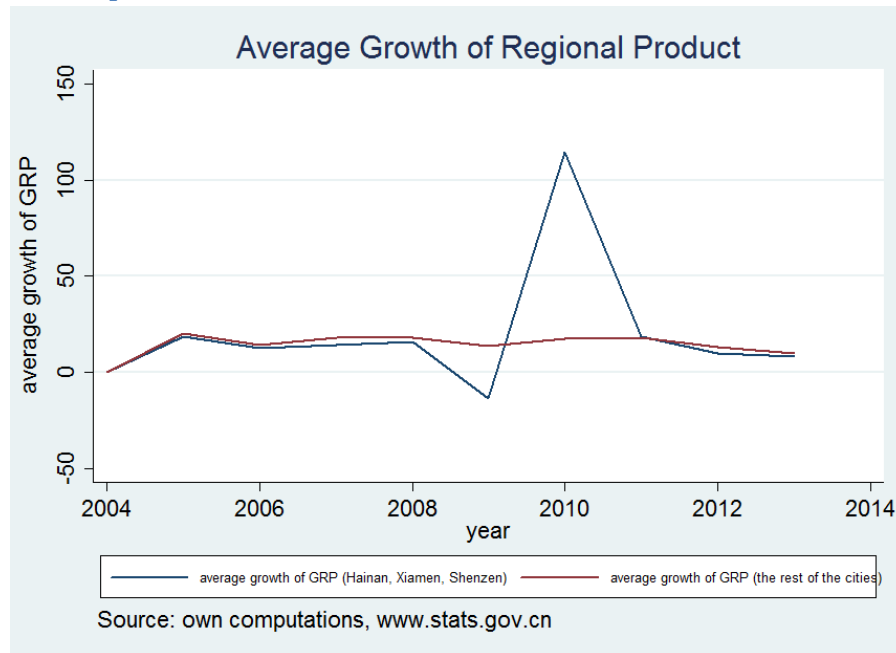
An interesting result is for dummy SEZ. SEZ is significant on 10% significant level and the overall effect is negative. SEZ negatively contribute to LGRPpc by 21.1 percentage points, ceteris paribus. This means that SEZs grow on average less than other 33 cities. The impact of SEZs on cities overall GDP is somewhat lower compared to observed cities. The possible explanation might be that there are number cities with other preferential zones in the study that performe better than SEZs (except Shenzhen). Another reason is China's assccession to the WTO which decreased the comparative advantage of SEZs since China opened even much more to international trade. It is very likely if there would be model for SEZs from 1980 to 1994 (opening up of coastal cities) or to 2001 (China's accession to the WTO) then the contribution to the log of GDP growth would be positive.

To further support this result, there is employed another variable - *real growth rate of GDP* in constant prices in RMB. This variable was computed as a difference of GDP/ population at time t and time t-1 over the lagged value of GDP.

$$gGDP = \frac{(GDP/POP)_t - (GDP/POP)_{t-1}}{(GDP/POP)_{t-1}}$$

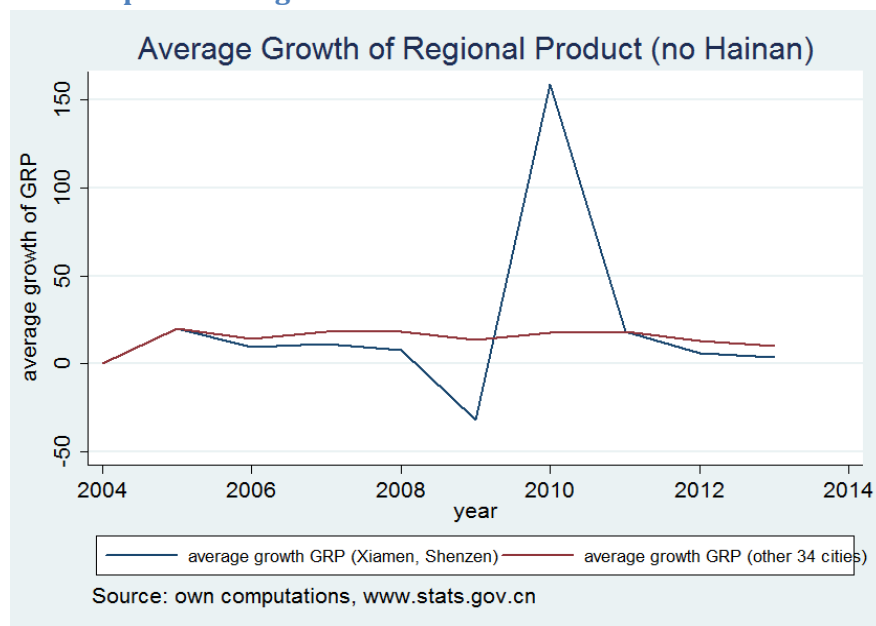
The following graph shows as well that SEZs real GDP growth was on average lower compared to other 33 cities. Except year 2010, in which the Xiamen SEZ grew 158 pp. growth rate and thus increased the growth GDP of SEZs group.

Graph 8. Real GDP Growth of SEZs vs. Other 33 Cities



Since there is computed average growth rate of SEZs, we compare results without the Hainan SEZ. Hainan is mostly primary and secondary industry oriented SEZ so its contribution to the Shenzhen and Xiamen SEZs might be negative. Yet, the graph below shows that average growth of GDP of SEZs without Hainan is even lower. In other words, the Hainan SEZ contributes to the average growth of other two SEZs.

Graph 9. Average Growth of GDP without Hainan



Model shows that contribution of the Shenzhen, Xiamen and Hainan SEZs to log GDPpc of all observable cities is negative. The result is even worst without the Hainan SEZ. The possible explanation is that the advantage that SEZ had has decreased. For instance, the Shenzhen SEZ, realizes this challenge and comes up with new development and policy plans. The Xiamen SEZ grows quite sustainably but the local government also implements new development and expansion plans. The Hainan SEZ decided to focus mainly on natural resource extraction and tourism as it wants to become the top destination city in the next 13 years.

Conclusions

In three years, PRC will celebrate 40th anniversary of the opening up policy and a major decision to start reforming the country. To avoid any social unrest, China chose a gradual – slow but safe – development path. The decision to open to the rest of the world was an unqualified success. It started with creating “testing laboratories” of the new policies in five chosen areas – special economic zones. As the thesis shows, SEZ establishment was a success, although, the each zone’s development was very distinguish. Like the rest of the world, the financial crises lowered China’s and SEZ’s performance. Nevertheless, the fact that China is not completely opened economy helped the country to deal somewhat better with the crises.

The development of SEZ’s since 2001 can be summarazies by Yeung (2009)¹⁴⁵ words: *"By 2001, the “special” aura that might still be associated with SEZs was further diluted by China’s admission to the WTO, which bound all parts of the country to the same set of rules for liberalizing trade and opening to foreign investment. Thus, whatever “special” attributes that are associated with the SEZs today are a legacy of past policy and reflect internal strengths. Nonetheless, the contribution of the zones to accelerating economic growth within China by popularizing new policies, marketing capital flows, and spreading successful new practices and policies cannot be overlooked or underestimated."*

Shenzhen became the engine of Guangdong province’s and China’s growth. Shenzhen also successfully tested new legislations and showed that the market economy perform much better. Shenzhen also served as a role model for the other SEZs and other zones and opened coastal cities. In the last decade, it hit some limits in environmental pollution, problems with water and energy supplies and increasing living costs. The Shenzhen City stands before an important decision which way it will take further.

Xiamen became the second most successful SEZ. At the beginning Xiamen faced many restrictions from the provincial capital city of Fuzhou. It was not before year 1994, when it finally gained legislation authority which enabled a greater attraction of FDI and enacted investment protection laws. In the 12th Five Year Plan, Chinese government chose Xiamen as a regional center for strengthening economic relations with the Taiwanese

¹⁴⁵ YEUNG, Y., et al. 2009. China's Special Economic Zones at 30, *Eurasian Geography and Economics*, 2009, no. 2, p. 222-240, DOI: 10.2747/1539-7216.50.2.222

investors and the mainland China. As a part of the plan, there were new expansion projects to connect with nearby cities Zhanzhou and Quanzhou to support the Golden Triangle.

Zhuhai can be considered as the third most successful SEZs in China. Until 1986, its administration structure was inefficient preventing the the inflow of foreign investment. Yet, since the 1990s, the share of foreign enterprises rose remarkably and share of agriculture declined substantially around 1997. Nevertheless, it seems that Zhuhai has not take the advantage of close relations with Macao as Shenzhen has done with Hong Kong. In 2003, there was the CEPA agreement creating similar conditions as under the free trade agreement. This was meant to increase economic cooperation between the two cities yet the cross-border interaction remained very poor. The only minor success might be the creation of a small area to develop educational establishment and logistic background by a joint endeavor of Macao and Zhuhai.

Shantou's initial position was dissimilar to other SEZs since the city already had a large share of industrial output (around 30 %). Another advantage was the fact that Shantou was the hometown of large population of Chinese emigrants who were expected to return after the relaxation of the policies and start investing there. Nevertheless, this happened to only a limited degree. In 1980, the tertiary industry share was the largest from all the SEZs. Moreover, the Shantou's harbor belongs to 20th largest in China which should lead to much greater growth in exports. In the case of Shantou, there are many missed opportunities and the question remains how the local authority will cope with it.

Hainan's starting position was bad compared to the other zones since there was very low level of development and great share of agriculture. The original four zones had 8 year head start. Hainan, as an island, have more than 60 harbors which should enable greater export volumes yet it remains isolated from the supply chains of mainland China. One solution could be strengthening up relations with the neighbouring countries like Vietnam. Hainan has a longer land use period which is an advantage for its large agriculture and touristic sectors. Further development plan for Hainan is to orientate even strongly on tourism to become the major destination city by year 2028.

The table below summarizes the total ranking of each zone with respect to the area, population, GDP, FDI and exports in 2013. Moreover, there is a ranking in comparison with other 355 Chinese cities.

Table 11. Ranking SEZs in China Comparison

Area	Ranking in China	Population	GDP	FDI	EX
Hainan	37	82	334	n.a.	n.a.
Zhuhai	257	335	108	37	23
Shantou	334	148	118	189	54
Shenzhen	336	8	4	10	1
Xiamen	341	273	53	31	9

Source: China Knowledge Website, own layout¹⁴⁶

The largest SEZ in the land area is Hainan, ranking the 37th in the overall ranking. The second largest is Zhuhai, ranking the 257th, and the remaining three zones are one of the smallest China's cities ranking higher than 330 from 355 cities. In other four areas Shenzhen is the best ranking SEZ. Shenzhen has the eight largest population in China, while Zhuhai has the smallest population.

Shenzhen has the largest GDP which is the fourth largest GDP in China. The first three largest GDP cities are: Shanghai, Beijing and Guangzhou. The second best in GDP terms is Xiamen, overall ranking the 53rd. Zhuhai and Shantou belong to the first half of 100 something positions, and Hainan is the worst – ranking 334. The overall ranking brings an interesting perspective since except Shenzhen all other SEZs perform much worst compared to other open cities or even cities without a special status or zone regime. Even Xiamen which is the second best performing city is in the 53rd position which is not so great result as one would expect from SEZ.

¹⁴⁶ China Knowledge Website, [online], [accessed: 13-04-2015], available: <http://www.chinaknowledge.com>

In FDI inflow, Shenzhen is the best performing zone and 10th most favorable destinations for FDI in China. Among the first nine cities belong, for instance, Tianjin, Shanghai, Dalian or Suzhou which are coastal open cities. Xiamen ranks 31st among other China's cities and Zhuhai 37th. There are no results for Hainan because of the bad availability of data, yet there are results for its capital city of Haikou ranking 118th.

The best ranking for SEZs is in export volume. In 2013, Shenzhen had the largest export volume from all Chinese cities and Xiamen was in the ninth position. Zhuhai and Shantou had also large export volumes, being in the 23rd and 54th places.

Yet, there are numerous direct and indirect reasons for this. Although, the starting positions were very similar for all of the zones except the Hainan island, only Shenzhen significantly succeeded. One of the reason may be the large FDI inflows and Shenzhen's proximity to Hong Kong and thus many overseas foreign investors chose to set up their enterprises there. Another reason is the high share of tertiary sector and large volume of financial and commercial services compared to the other zones. The legislation is also the most favourable for Shenzhen. However, Zhuhai is also located in the immediate proximity to Hong Kong and Macao. Zhuhai had similar values of GDP and exports in 1980 but did not succeed so much compared to Shenzhen. And there is Shantou which is very low performing in almost all areas. As it was discussed earlier, there is an increasing criticism of its location and infrastructure which makes it inconvenient compared to Shenzhen and Zhuhai. Another problem in the case of Shantou is that the city was initially split into three cities and this decision is often seen as unlucky. There might be efforts in the future to create one big SEZ from all these cities to make the Shantou SEZ more competitive. The Xiamen SEZ is the second best SEZ but not ranking too high in GDP and FDI inflows terms compared to other China's cities. There plans for further territorial expansion which would enable the entry of more companies. The Xiamen City has many future development plans and it became one of the most important cities in the Fujian province although it is not the provincial capital city. To Xiamen's development contributed greatly its family ties and good relations with Taiwanese people who are therefore much likely to invest there.

The SEZs comparative advantages have been slowly fading away. As the model shows SEZs contribute negatively to the GDPpc growth of other 33 cities. Most of these cities incorporate some kind of special zone, plus there are 14 open coastal cities. Therefore, one can say that these 33 other cities are more successful nowadays compared to SEZs. SEZs are

facing new challenges in the new millennium as China entered the WTO. Their future decisions will show whether they were successful only at the beginning in a controlled environment or whether they will seize their still various advantages and take a new development path.

The thesis main goal was to describe and analyze the economic development of SEZs which was fulfilled. The other marginal goals were to compare the SEZs with each other and assess their development. Model analyzed successfully contribution of SEZs to GDP of selected zone-based cities. However, contrary to the hypothesis, the SEZs contribution was negative and their performance poorly compared to other observed cities.

Resources

Bibliography

ADHIKARI, R., YANG, Y., 2002., What Will WTO Membership Mean for China and Its Trading Partners?, *Finance and Development*, vol. 39, no. 3, September 2002, [accessed: 14/03/2015], available: <http://www.imf.org/external/pubs/ft/fandd/2002/09/adhikari.htm>

AGGARVAL, A., 2010. Economic Impacts of SEZs: Theoretical Approaches and Analysis of Newly Notified SEZs in India, MPRA Paper, no. 20902, March 2010, p. 61, [accessed: 11/03/2015], available: http://mpa.ub.uni-muenchen.de/20902/2/MPRA_paper_20902.pdf

BRUNSCHWEILER, A., 2014, Introduction to special economic zones in China, illustrated by the Special Economic Development Zones of Horgos and Kashgar (Xinjiang province), *Jusletter*, June 2014, p. 1-4, [accessed: 20-04-2015], available: [http://www.lalive.ch/data/publications/Introduction to special economic zones in China.pdf](http://www.lalive.ch/data/publications/Introduction%20to%20special%20economic%20zones%20in%20China.pdf)

CHEN, X., MEDICI, T., 2009. The “Instant City” Coming of Age: China’s Shenzhen Special Economic Zone in Thirty Years, Trinity College, Connecticut, 2009, p. 14, [accessed: 13-04-2015], available: <http://www.trincoll.edu/UrbanGlobal/CUGS/Faculty/Rethinking/Documents/The%20Instant%20City%20Coming%20of%20Age.pdf>

China Foreign Trade, 2011., China Embassy Government White Paper, December 2011, Beijing, [accessed: 23/03/2015], available: <http://www.china-embassy.org/eng/zt/bps/t943740.htm>

CHEESMAN, A., 2012., Special Economic Zones & Development: Geography and Linkages in the Indian EOU Scheme, *DPU WP* no. 145, p. 42, [accessed: 01/04/2015], available: <http://www.bartlett.ucl.ac.uk/dpu/publications/dpu/latest/publications/dpu-working-papers/WP145.pdf>

DAVIES, K., 2013. China Investment Policy: An update, *OECD WP on International Investment*, 2013/01, OECD Publishing, p. 1-77, [accessed: 26-04-2015], available: <http://dx.doi.org/10.1787/5k46911hmvbt-en>

FAN, C., 1997. Uneven Development and Beyond: Regional Development Theory in Post-Mao China, *Blackwell Publishers Ltd.*, 1997, p.1-20., [accessed: 10/04/2015], available: <http://www.sscnet.ucla.edu/geog/downloads/597/193.pdf>

FAROLE, T., 2011, Special Economic Zones: What Have We Learned?, Economic Premise, *World Bank WP*, no. 64, p. 1-5, [accessed: 05/03/2015], available: <http://siteresources.worldbank.org/INTPREMNET/Resources/EP64.pdf>

FENWICK, A., 1984. Evaluating China’s Special Economic Zones, *Berkley Journal of International Law*, vol. 2, issue 2 Fall, p. 1-23, 1984, [accessed: 11/03/2015], available: <http://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1025&context=bjil>

FUNG, K.,C., et al., 2002, *Foreign Direct Investment in China: Policy, Trend and Impact*, paper for conference: China's Economy in the 21st Century on June 24-25, 2002, Hong Kong, p. 1.34, [accessed: 26-04-2015], available: <http://222.255.132.18:8085/Portals/0/Docs/5315157-wp1049.pdf>

GALBRAITH, LU, 2000., Sustainable Development and the Open-Door Policy in China, *UTIP WP* no. 16, May 2000, p. 20, [accessed: 02/03/2015], available: http://policydialogue.org/files/events/Galbraith_Lu_sustainable_development.pdf

GOKHAN, A., JAMES, C., 2008. Special Economic Zone: Performace, Lessons Learned, Implication to the Zone Development, *Foreign Investment Advisory Service (FIAS) Occasional Paper*. Washington, DC: World Bank., p. 1- 83, [accessed: 04/03/2015], available: <http://documents.worldbank.org/curated/en/2008/04/9915888/special-economic-zone-performance-lessons-learned-implication-zone-development>

GUANGWEN, M., 2003., *The Theory and Practice of Free Economic Zones: A Case Study of Tianjin, People's Republic of China*, University of Heidelberg, Germany, 2003, p. 1-239, [accessed: 11/03/2015], available: http://www.eu-china.net/upload/pdf/materialien/meng_2003_theory_and_practice_of_free_economic_zones_china.pdf

GUOGUANG, L., et al., 1987, Experiences in Developing China's Special Economic Zones (typically Shenzhen), UNESCO, p. 1-226, [accessed: 13-04-2015], available: <http://unesdoc.unesco.org/images/0007/000761/076188EB.pdf>

HAO, L., 1996. Development of The Shenzhen Economic Zone, Report for National People's Congress, China, 1996, p. 145-149, [accessed: 13-04-2015], available: http://www.neaef.org/public/neaef/files/documents/publications_pdf/annual_meeting/6th-1996/6.1.Li_6an_1996.pdf

HOLZ, 2008., China's Economic Growth 1978-2025: What We Know Today About China's Economic Growth Tomorrow, *World Development*, 2008, vol. 36, no. 10, p. 26, [accessed: 08/03/2015], available: <https://ideas.repec.org/p/wpa/wuwpdc/0507001.html>

KNOTH, E., 2000., *Special Economic Zones and Economic Transformation: The Case of The People's Republic of China*, Universtiy of Konstanz, 2008, p. 1-265, [accessed: 13-04-2015], available: <http://d-nb.info/959241612/34>

KPMG China Expands Into Xiamen, Cheung, W., 2010, KPMG Report, [accessed: 13-04-2015], available: <http://www.kpmg.com/CN/en/IssuesAndInsights/ArticlesPublications/Documents/KPMG-China-Xiamen-201010.pdf>

LEINO, T., ALI-YRKKO, J., 2014. How Does Foreign Direct Investment Impact on Real Investment by Foreign-owned Companies? Firm-level analysis, 2014, Bank of Finland, p. 1-23, [accessed: 26-04-2015], available: <http://www.oecd.org/daf/inv/2014-FDI-Statistics-Workshop-Panel-1-Ali-Yrko-Leino.pdf>

LONG, G., 2002. China's Policies on FDI: Review and Evaluation, *Development Research Center of the State Council of the People's Republic of China*, 2002, p. 1-22, [accessed: 26-04-2015], available: http://www.petersoninstitute.org/publications/chapters_preview/3810/12ie3810.pdf

MATSUI, Y., 2013., *Special Economic Zone: Concept, Types, Experiences and Current Tendency*, KRI INTERNATIONAL CORP. (NIPPON KOEI GROUP), 2013, p. 1-18, [accessed: 01/04/2015], available: http://apbf.unescap.org/content/MBDW_files/files/MBDW-Day4-S13-JIKA YOICHI MATSUI.pdf

MCKENNEY, K., 1993. *An Assessment of China's Special Economic Zones*, Executive Research Project S94, National Defense University, Washington, 1993, p. 1- 40, [accessed: 10/04/2015], available: <http://www.dtic.mil/dtic/tr/fulltext/u2/a276611.pdf>

MOHIUDDIN, M., et al., 2014. The Special Economic Zone as a Locomotive for Green Development in China, *Asian Social Science*, vol. 10, no. 18, 2014, ISSN 1911-2017, 2014, p. 109, [accessed: 11/03/2015], available: http://webcache.googleusercontent.com/search?q=cache:vwI6nBCu98IJ:www.researchgate.net/profile/MuhammadMohiuddin/publication/265013671_The_Special_Economic_Zone_as_a_Locomotive_for_Green_Development_in_China/links/5417e31c0cf2f48c74a4180c.pdf+&cd=7&hl=en&ct=clnk&gl=cz

NALLATHIGA, R., 2007., Potential of Special Economic Zones in Promoting Industrial and Regional Economic Development: An Analysis, paper based on presentation at the third Annual International Conference of the Association of International Scholars held at the Indian Institute of Management, Kolkata, on Dec 29-31 2004, p. 62-80, [accessed: 05/03/2015] available: http://www.researchgate.net/publication/5105599_Potential_of_Special_Economic_Zones_in_Promoting_Industrial_and_Regional_Economic_Development_An_Analysis

NAUGHTON, 1993., Deng Xiaoping: The Economist, *The China Quarterly*, No. 135, Special Issue: Deng Xiaoping: An Assessment, Sep., 1993, pp. 491-514, [accessed: 02/03/2015] available: <http://www.jstor.org/stable/654099>

PAKDEENURIT, P., SUTHIKARNNARUNAI, N, RATTANAWONG, W., 2014. *Special Economic Zone: Facts, Roles, and Opportunities of Investment*, International MultiConference of Engineers and Computer Scientists 2014, vol. 2, March 12-14, 2014, Hong Kong, ISSN: 2078-0966 (Online), p. 1-5, [accessed: 07/03/2015] available: http://www.iaeng.org/publication/IMECS2014/IMECS2014_pp1047-1051.pdf

PARR, J., B., 1973, Growth Poles, Regional Development, and Central Place Theory, *Papers of the Regional Science Association* 1973, vol. 31, is. 1, p. 173-212, [accessed: 10/04/2015], available: <http://link.springer.com/article/10.1007%2FBBF01943249>

PRIME, P., 2002., China joins the WTO: How, Why and What Now? *Business Economics*, vol. XXXVII, no. 2, April 2002, p. 26-32, [accessed: 14/03/2015], available: <http://www.chinacenter.net/docs/WTOPrime3.pdf>

- RAMON-BERJANO, C. 2011. *Taiwan and Fujian: Promoting a Closer Cross-Strait Relationship: Economic vs. Political Issues*, International Centre for China Development Studies, Hong Kong University, 2011, p. 1-18, [accessed: 13-04-2015], available: http://www.politica-china.org/imxd/noticias/doc/1299605696Taiwan_and_Fujian.pdf
- ROLL, CH., 1991, A Comparison of Hainan with the Other Special Economic Zones, *The Rand Paper*, no. 3295, 1991, p. 1-44, [accessed: 19-04-2015], available: <http://www.rand.org/content/dam/rand/pubs/notes/2009/N3295.pdf>
- RUIS, M., 2012. The Anatomy Of Special Economic Zones, *Colloquial Urban and Architectural Research and Development*, Nov. 2012, p. 1-57, [accessed: 12/04/2015], available: <http://www.clql.com/wp-content/uploads/SpecialEconomicZones.pdf>
- SAHLING, L., 2008., China's Special Economic Zones and National Industrial Parks — Door Openers to Economic Reform, *ProLogis Research Group* 303-576-2766, 2008, p.16, [accessed: 05/03/2015], available: [http://www.prologis.com/docs/research/asia/China - Special Economic Zones National Industrial Parks - Door Openers to Economic Reform.pdf](http://www.prologis.com/docs/research/asia/China_-_Special_Economic_Zones_National_Industrial_Parks_-_Door_Openers_to_Economic_Reform.pdf)
- SHAN, W., WENG, C., 2010, *China's New Policy in Xinjiang and its Challenges*, THE XINJIANG WORK Conference, vol.2, no. 3, 2010, p. 1-9, [accessed: 20-04-2015], available: http://www.eai.nus.edu.sg/Vol2No3_ShanWei&WengCuifen.pdf
- STOLTENBERG, C., 1984. China's Special Economic Zones: Their Development and Prospects, *Asian Survey*, vol. 24, no. 6, Jun. 1984, p. 637 – 654, [accessed: 04/03/2015], available: <http://www.jstor.org/stable/2644396>
- TORRES-REYNA, O., 2007, *Panel Data Analysis Fixed and Random Effects using Stata*, Princeton University, Dec. 2007, p. 1-40, [accessed: 26-04-2015], available: <http://www.princeton.edu/~otorres/Panel101.pdf>
- TISDEL, 2008., Thirty Years of Economic Reform and Openness in China: Retrospect and Prospect, Economic Theory, Applications and Issues, *The University of Queensland WP* 51, ISSN 1444-8890, p. 25, [accessed: 02/03/2015], available: <http://www.uq.edu.au/rsmg/docs/ClemWPapers/ETA/WP%2051.pdf>
- WANG, J., 2010. *The Economic Impact of Special Economic Zones: Evidence from Chinese Municipalities*, Hong Kong University of Science and Technology, 2010, p. 1-44, [accessed: 12/04/2015], available: https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=NASM2011&paper_id=239
- YAN, I., et al., 2003, Openness and Productivity in China, *City University of Hong Kong Paper*, 2003, p. 63, [accessed: 14/03/2015], available: <http://cerdi.org/uploads/sfCmsContent/html/203/Chong.pdf>

YEUNG, Y., et al. 2009, China's Special Economic Zones at 30, *Eurasian Geography and Economics*, 2009, no. 2, p. 222-240, DOI: 10.2747/1539-7216.50.2.222

ZENG, Z., 2011. How Do Special Economic Zones and Industrial Clusters Drive China's Rapid Development? *The World Bank WP* 5583, p. 1- 53, [accessed: 10/04/2015], available: <http://elibrary.worldbank.org/doi/book/10.1596/1813-9450-5583>

ZHU, Z., KHAN, Y., 1997., Why Is China Growing So Fast?, IMF, no. 8, June 1997, p. 1-14, [accessed: 23/03/2015], available: <https://www.imf.org/EXTERNAL/PUBS/FT/ISSUES8/issue8.pdf>

ZHU, 2012., Understanding China's Growth: Past, Present, and Future, *Journal of Economic Perspectives*, vol. 26, no. 4, p. 21, [accessed: 02/03/2015]
available: <https://www.aeaweb.org/articles.php?doi=10.1257/jep.26.4.103>

CHUNG, J., *Cities In Post-Mao China: Recipes For Economic Development in The Reform Era*, Routledge Publishing, 1999, p. 1-450, ISBN 0-203-97608-8

Online Sources and Databases

A Review of the Role and Impact of Export Processing Zones [online], 1999, MADANI, D., The World Bank, 1999, p. 108, [accessed: 01/04/2015], available: <http://siteresources.worldbank.org/INTRANETTRADE/Resources/MadaniEPZ.pdf>

Calls For Creation of New SEZ in Shantou, [online], Juan, D., 14/03/2013, China Daily Website, [accessed: 20-04-2015], available: http://www.chinadaily.com.cn/business/2013-03/14/content_16307866.htm

China, *European Commission*, [accessed: 23/03/2015], available: <http://ec.europa.eu/trade/policy/countries-and-regions/countries/china/>

China Statistical Yearbook 2014, [accessed: 26-04-2015], available: <http://www.stats.gov.cn/tjsj/ndsj/2014/indexeh.htm>

China's Peaceful Development [online], 2011/09/06. Information Office of the State Council, The People's Republic of China, September 2011, Beijing, [accessed: 04/03/2015], available: <http://www.china-embassy.org/eng/jbwzlm/zgyw/t856287.htm>

China's Foreign Trade, 2011, Embassy of People's Republic of China, Beijing, 2011/12/07, [accessed on 04-03-2015], available: <http://www.china-embassy.org/eng/zt/bps/t943740.htm>

China's export-led growth model, [online], 27 Feb 2011, Yao, Y., EastAsiaForum - Economics, Politics and Public Policy in East Asia and the Pacific, [accessed: 11/03/2015], available: <http://www.eastasiaforum.org/2011/02/27/chinas-export-led-growth-model/>

China in the WTO: Past, Present and Future, The Tenth Anniversary of China's Accession to The WTO, p. 3 [accessed: 12/03/2015], available: https://www.wto.org/english/thewto_e/acc_e/s7lu_e.pdf

China's Accession To WTO, International Economics website, [accessed: 14/03/2015], available: <http://intl.econ.cuhk.edu.hk/faq/wtochina.php>

China Knowledge Website, [online], [accessed: 13-04-2015], available: <http://www.chinaknowledge.com>

China's Strategic Use of Special Economic Zones, [online], Colloquial. Urban and Architectural Research and Development, , [accessed: 12/04/2015], available: <http://www.cllql.com/?p=2821>

China's largest special economic zone celebrates 20th anniversary, [online], 26/04/2008, Window of China website, [accessed: 20-04-2015], available: http://news.xinhuanet.com/english/2008-04/26/content_8056648.htm

Composition of GDP, National Bureau of Statistics of China, [accessed: 23/03/2015], available: <http://www.stats.gov.cn/tjsj/ndsj/2014/indexeh.htm>

Cross-Straits entrepreneurs call for Kinmen-Xiamen SEZ, [online], 09/06/2014, [accessed: 13-04-2015], available: <http://www.ecns.cn/cns-wire/2014/06-09/118121.shtml>

Data for Shenzhen, Zhuhai, Shantou, Xiamen, Hainan, National Bureau of Statistics of China, [accessed: 23/04/2015], available: <http://www.stats.gov.cn>

Exports and Imports at constant US\$ 2005, *World Bank*, [accessed: 23/03/2015], available: <http://data.worldbank.org/indicator/NE.EXP.GNFS.KD> and <http://data.worldbank.org/indicator/NE.IMP.GNFS.KD>

From 'Siberia' to Success Xiamen SEZ, [online], Zongyang, T., Meidong, H., 26/12/2011, China Daily, [accessed: 13-04-2015], available: http://www.chinadaily.com.cn/cndy/2011-12/26/content_14324828.htm

GDP Growth (annual %), *World Bank*, [accessed: 23/03/2015], available: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

Hainan Province- China's Largest SEZ, [online], May 2th 1988, updated Feb 3rd 2010, Xiaobing, Y., Beijing Review website, [accessed: 19-04-2015], available: http://www.bjreview.com.cn/Cover_Story_Series_2010/2010-02/03/content_244683_3.htm

Hainan Special Economic Zone, Foreign Investment Regulations, [online], Official Website of Hainan Government, [accessed: 19-04-2015], available: http://en.hainan.gov.cn/englishgov/INVEST/Policy/200912/t20091229_39688.html

Kashgar On The Move, [online], 14/10/2013, Rippa, A., The Diplomat website, [accessed: 20-04-2015], available: <http://thediplomat.com/2013/10/kashgar-on-the-move/>

Kashgar: New SEZ in Xinjiang, [online], 25/01/2011, Mayer, A., China Urban And Development website, [accessed: 20-04-2015], available: <http://www.chinaurbandevelopment.com/kashgar-new-sez-in-xinjiang/>

Kashgar-The Next Economic Booming Hub- Analysis, [online], 28/06/2013, Sandano, I., Eurasia Review – A Journal of News and Analysis, [accessed: 20-04-2015], available: <http://www.eurasiareview.com/28062013-kashgar-the-next-economic-booming-hub-analysis/>

Merchandise Trade, *World Bank*, [accessed: 14/03/2015], available: <http://data.worldbank.org/indicator/TG.VAL.TOTL.GD.ZS>

OECD, 2011., *Designing Economic Zones for Effective Investment Promotion*, Working Group 1: *Investment Policies and Promotion 15-16*, February 2010, Amman, [accessed: 05/03/2015], available: <http://www.oecd.org/mena/investment/44866506.pdf>

Politika Otevření se Světu: ZVLÁŠTNÍ EKONOMICKÉ OBLASTI A OTEVŘENÁ POBŘEŽNÍ MĚSTA, 2010/05/02, [online], Embassy of The Peoples Republic of China in the Czech Republic, [accessed: 10/04/2015], available: <http://www.chinaembassy.cz/cze/zgk/t126980.htm>

Primary Income On FDI, *World Bank*, [accessed: 23/03/2015], available: <http://data.worldbank.org/indicator/BX.KLT.DREM.CD.DT>

Regulations On Special Economic Zones In Guangdong Province, [online], *Laws of The People's Republic of China*, [accessed: 19-04-2015], available: <http://www.asianlii.org/cn/legis/cen/laws/rosezip554/#3>

Shenzhen, [online], *China Briefing*, [accessed: 13-04-2015], available: <http://www.china-briefing.com/regional-intelligence/shenzhen.html>

Shenzhen Faces New Challenges, [online], Aug/26/2010, Shenzhen 30 Years, Beijing Review, [accessed: 13-04-2015], available: http://www.bjreview.com.cn/special/2010-08/26/content_294280.htm

Special Economic Zones And Tax Exemption in China, Report by Ernst&Young, China Competence Centre, p. 1-4, [accessed: 04/03/2015], available: <http://www.ey.com/CN/en/Services/Tax/Country-Tax-Advisory/EY-China-Tax-and-Investment-Express>

The Development of China's Special Economic Zones, China Insights, [accessed: 05/03/2015], available: <http://www.internshipschina.com/community/chinainsights2/55-china-insights/669-the-development-of-china-s-special-economic-zones#.VSTXNfmUcWI>

Understand China, [online], [accessed: 19-04-2015], available: understand-china.com/province/zhuhai/

Xiamen, [online], China Briefing, [accessed: 13-04-2015], available: <http://www.china-briefing.com/regional-intelligence/xiamen.html>

Zhuhai (Guangdong) City Information,[online], China Knowledge Website, [accessed: 13-04-2015], available: <http://www.chinaknowledge.com/CityInfo/City.aspx?Region=Coastal&City=Zhuhai>

Appendix

Table 1. Data Description

Variable	Obs	Mean	Std. Dev.	Min	Max
popul	360	7032119	5318546	1377900	3.36e+07
GRPpc	360	60190.07	58729.9	8442.955	467041.3
openness	360	.5390666	.6477147	.0294371	4.734785
FDI_GDP	360	58.62763	20.44985	17.24806	146.0071

Source: results by using STATA, own computations

Table 2. Correlation of coefficients

	GRPpc	FDI_GDP	openness	popul
GRPpc	1.0000			
FDI_GDP	-0.3310	1.0000		
openness	0.6361	-0.4791	1.0000	
popul	-0.1083	0.0901	-0.0430	1.0000

Source: STATA, own computations

Number of obs = 360

F(4, 355) = 28.89

Prob > F = 0.0000

R-squared = 0.3354

Root MSE = .58544

Source: STATA, own computations

Table 3. Results of Model

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
lGRPpc					
FDI_GDP	.0041271	.0016614	2.48	0.013	.0008596 .0073945
openness	.7099572	.0702359	10.11	0.000	.5718265 .848088
lpopul	-.0098508	.0520207	-0.19	0.850	-.1121583 .0924567
SEZ	-.2153609	.1279804	-1.68	0.093	-.467056 .0363343
_cons	10.27266	.8136775	12.62	0.000	8.672425 11.87289

Source: STATA, own computations