Proceedings of the 2nd International Conference on Business and Policy Studies
DOI: 10.54254/2754-1169/12/20230636

The Impacts of Different Economic Structures on Economy and Society

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Abstract: The debate on the benefits and drawbacks of an economy's size is developed in this proposal. The researcher wants to use this background information to study the consequences of various economic structures after reading literature comparing and contrasting small and large economies. To be more precise, the researcher wants to start the suggested research by contrasting China's and Singapore's economic progress. Choosing a period allows us to study the effects of changes in the relative proportions of various industrial structures in China and Singapore on economic growth during that particular period.

Keywords: country structure, country size, growth rate

1. Introduction

Our research proposal will investigate how different economic scales and models impact the economy and society. To be more precise, the researchers will investigate their economic sectors: raw materials, manufacturing, and service.

China has a GDP of $13.6T, ranked the second largest economy in the world, while Singapore ranked 36th with $364.2B. By GDP 5-year average growth and GDP per capita, China and Singapore ranked 12th vs. 76th and 76th vs. 10th, respectively. In China, around 22.9 percent of the workforce was employed in the agricultural sector, 29.1 percent in the industrial sector, and 48 percent in the service sector. In contrast, Singapore has a highly developed and booming free-market economy. It enjoys an open and corruption-free environment, stable prices, and a per capita GDP higher than most developed countries. Also, its unemployment rate is shallow. The economic sectors' distribution in Singapore is agriculture: 0.5%, industry: 24.8%, and services: 75.2%.

Therefore, if the researchers have to investigate the impacts of different economic structures on society, China and Singapore can be the perfect examples of this topic. Both Singapore and China rely heavily on imports for their manufacturing industry. The Singaporean and Chinese governments are very actively involved in developing their respective economies. Both Singapore and China have substantial foreign reserves by the governments in both countries. Furthermore, they have plenty of government-driven or government-affiliated investments outside their national boundaries, be it infrastructure in developing countries or others. The difference is that Singapore is

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a small and open economy with few natural resources, so it heavily depends on all its trading partners.

In contrast, China is a vast and not fully open economy, and sometimes when others are in crisis, China can shield its domestic economy partially from the crisis. One of the most significant differences between China and Singapore is in consumption, as Singapore's domestic consumption is tiny compared to its trade, while China has sizeable domestic consumption. In addition, China is constantly accused of manipulating the value of its currency. Singapore is less manipulative in this area. What is also worth mentioning is the state-owned company's presence in China and absence in Singapore.

In a small open economy, investment (capital) flows freely in and out of a country at a fixed world interest rate. In contrast, in a larger open economy model, the interest rate r is primarily a function of the domestic economy and central bank monetary policies. The size of their GDP usually classifies small economies. The smallness of the economy can be an advantage since it provides better conditions for faster economic growth and makes transformations of the economy easier. However, the advantage of a larger economy is that the high economic growth leads to increased profitability for firms, enabling more spending on research and development. This can lead to technological breakthroughs, such as improved medicine and greener technology. Also, sustained economic growth increases confidence and encourages firms to take risks and innovate.

The researcher read six pieces of literature to investigate our topic knowledgeably. The pieces of literature are:

1. What makes the Singapore economy tick?
2. Singapore Economy Overview
3. The History of Singapore's Economic Development
4. Singapore economy: History, Political Impacts & Growth
5. Singapore: The Reason Behind Its Economic Success
6. Smallness of the Economy as an advantage

The previous literature the researcher used discussed the similarities and differences between a small economy and a large economy. Furthermore, they discussed the (Dis)advantages of both small and large economies. Finally, they attribute a country's economic performance to historical and political impact and growth.

2. Methodology

As for the research method, our overall idea is to select a period and then analyze the fluctuations in the proportion of various industrial structures in China and Singapore, as well as the impact on economic growth. The selection of this period started in 1978 when China carried out reform and opening up, which was the turning point of changes in the economic development of new China.

3. Analysis of China's Industrial Structure

The researcher can divide China's economic reform so far into four stages:

The first stage: The economic system reform starts from the countryside (the Third Plenary Session of the Eleventh Central Committee in 1978 - the Third Plenary Session of the Twelfth Central Committee of the Communist Party of China)

The second stage: Comprehensively implement the city-centered economic system reform (October 1984 - the 14th National Congress of the Communist Party of China in 1992)

The third stage: Initially establish a socialist economic system (from the 14th CPC National Congress in 1992 to the 16th CPC National Congress in 2001).

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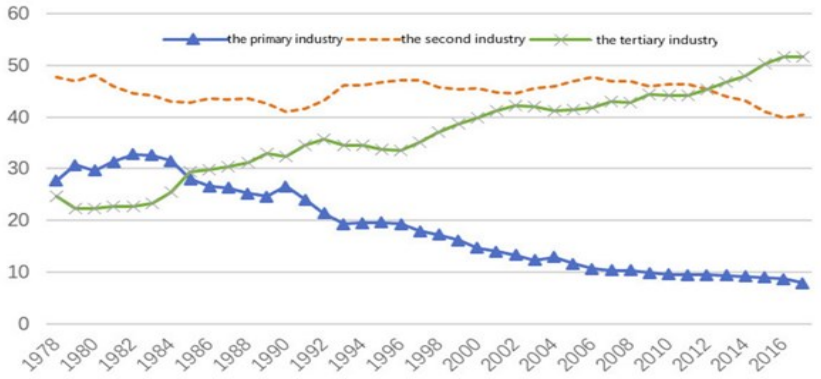
The fourth stage (since the 16th CPC National Congress in 2001) is: Improve the socialist economic system.

Our primary method is to show the fluctuation of the proportion of various industrial structures since 1978 in a line chart and to list specific data to highlight their contribution to GDP:



Source(s): *China Statistical Yearbook, 2017*

Year	Gross output value (100m yuan)					Indices of gross output (preceding year = 100)				
	Total	#Agriculture	#Forestry	#Animal husbandry	#Fishery	Total	#Agriculture	#Forestry	#Animal husbandry	#Fishery
1978	1397.0	1117.5	48.1	209.3	22.1					
1980	1922.6	1454.1	81.4	354.2	32.9	101.4	99.7	112.2	107.0	107.7
1985	3619.5	2506.4	188.7	798.3	126.1	103.4	99.8	104.5	117.2	118.9
1990	7662.1	4954.3	330.3	1967.0	410.6	107.6	108.0	103.1	107.0	110.0
1991	8157.0	5146.4	367.9	2159.2	483.5	103.7	100.9	108.0	108.8	107.6
1992	9084.7	5588.0	422.6	2460.5	613.5	106.4	104.2	107.7	108.8	115.3
1993	10995.5	6605.1	494.0	3014.4	882.0	107.8	105.2	108.0	110.8	118.4
1994	15750.5	9169.2	611.1	4672.0	1298.2	108.6	103.2	108.9	116.7	120.0
1995	20340.9	11884.6	709.9	6045.0	1701.3	110.9	107.9	105.0	114.8	119.4
1996	22353.7	13539.8	778.0	6015.5	2020.4	109.4	107.8	105.7	111.4	114.0
1997	23788.4	13852.5	817.8	6835.4	2282.7	106.7	104.5	103.3	110.1	111.5
1998	24541.9	14241.9	851.3	7025.8	2422.9	106.0	104.9	102.9	107.4	108.8
1999	24519.1	14106.2	886.3	6997.6	2529.0	104.7	104.3	103.2	104.6	107.2
2000	24915.8	13873.6	936.5	7393.1	2712.6	103.6	101.4	105.4	106.3	106.5
2001	26179.6	14462.8	938.8	7963.1	2815.0	104.2	103.6	99.3	106.3	103.9
2002	27390.8	14931.5	1033.5	8454.6	2971.1	104.9	103.9	107.1	106.0	106.1
2003	29691.8	14870.1	1239.9	9538.8	3137.6	104.0	100.5	106.9	107.3	105.3
2004	36239.0	18138.4	1327.1	12173.8	3605.6	107.5	108.5	102.0	107.2	106.0
2005	39450.9	19613.4	1425.5	13310.8	4016.1	105.7	104.1	103.2	107.8	106.5
2006	40810.8	21522.3	1610.8	12083.9	3970.5	105.4	105.4	105.6	105.0	106.0
2007	48893.0	24658.1	1861.6	16124.9	4457.5	103.9	104.0	106.9	102.3	104.8
2008	58002.2	28044.2	2152.9	20583.6	5203.4	105.7	104.8	108.1	106.8	106.0
2009	60361.0	30777.5	2193.0	19468.4	5626.4	104.6	103.8	107.1	105.8	105.8
2010	69319.8	36941.1	2595.5	20825.7	6422.4	104.4	104.1	106.5	104.1	105.5
2011	81303.9	41988.6	3120.7	25770.7	7568.0	104.5	105.6	107.6	101.7	104.5
2012	89453.0	46940.5	3447.1	27189.4	8706.0	104.9	104.4	106.7	105.2	105.1
2013	96995.3	51497.4	3902.4	28435.5	9634.6	104.0	104.4	107.3	102.0	105.2
2014	102226.1	54771.5	4256.0	28956.3	10334.3	104.2	104.4	106.1	103.0	104.4
2015	107056.4	57635.8	4436.4	29780.4	10880.6	103.9	105.0	105.3	101.1	103.8
2016	112091.3	59287.8	4631.6	31703.2	11602.9	103.5	104.2	106.0	100.7	104.2

Source(s): *China Statistical Yearbook, 2017*

Figure 1: the four stages of China's economic reform.

Several changed nodes can be from the charts:

In the first stage (1978-1984), a remarkable characteristic of the change of industrial structure had a rapid increase in the proportion of the primary industry in GDP. These reflect that China's agricultural and rural reform had significantly released agricultural productivity, driven the development of the primary industry, and more resources were inclined to the primary industry. After that, however, heavy industry was in the adjustment process, resulting in a sharp decline in the proportion of the secondary industry in GDP.

In the second stage (1985-1992), China's non-agricultural industry developed incredibly. The proportion of the tertiary industry in GDP increased from 28% to 34%, which was a record high. In 1994, the total amount of people in the tertiary industry exceeded that in the secondary industry.

In the third stage (1993-2001), the heavy chemical industry became central to China's economy. This period was characterized by the development and strengthening of infrastructure (including transportation, energy use, and communication facilities), so the scale of the secondary industry

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began to rise rapidly. During this time, economic growth was dominated by the heavy chemical industry. Another feature is that China's global economic influence has been increasing, From the 14 coastal pilot open cities in 1992 to China's accession to the WTO in 2001, China's economy has changed into an export-oriented economy, which is no longer driven by domestic consumption.

In the fourth stage (since the 16th National Congress of the Communist Party of China in 2002), the proportion of the tertiary industry began to show a sustained growth trend, China's economic growth began to be driven by urbanization and industrialization, and the economic structure changed from manufacturing-driven to people-oriented. In 2011, China's urban population exceeded the rural population, which was the first time this situation occurred. It showed that China, once a classic agricultural country, was moving towards becoming a modern urban country.

So far, the evolution of China's economic structure has been supported by shrinking agriculture, stable industrialization, and the constantly innovative and upgraded tertiary industry. The key to economic development with Chinese characteristics is that the industrial sector is in a solid and unshakable leadership position. The secondary industry has been maintaining rapid development and leading economic growth, among which manufacturing has significantly contributed. With the tertiary industry's rapid development, its GDP proportion continues to rise. In the new era, the contribution rate of the tertiary industry is gradually approaching the industrial sector, which shows that the rapid and efficient urbanization process has played a significant role in promoting the development of the tertiary industry and has also made China's economic structure more balanced [1].

4. Data Presentation

In China, the share of primary industry in the economic structure shows an increasing trend from 1959 to 1968, from approximately 23% to 42%. However, the share of the primary industry decreased gradually from 1968 to 2021 to about 8% in 2021 because, at the beginning of the new China, China was a typical agricultural country, and the national economy depended mainly on agricultural production. However, since the reform and opening up of China, the industrial structure of China has been gradually rationalized, and China's industrial structure gradually tends to transform into secondary and tertiary industries [2]. In contrast, the share of primary industry in Singapore's economic structure has been relatively low and continues to show a decreasing trend from around 4 percent to almost 0 percent from 1958 to 2021. Singapore's economic structure is a foreign trade-driven economy based on electronics, petrochemicals, finance, shipping, and services, so the share of agriculture in Singapore's economic structure has always been low.

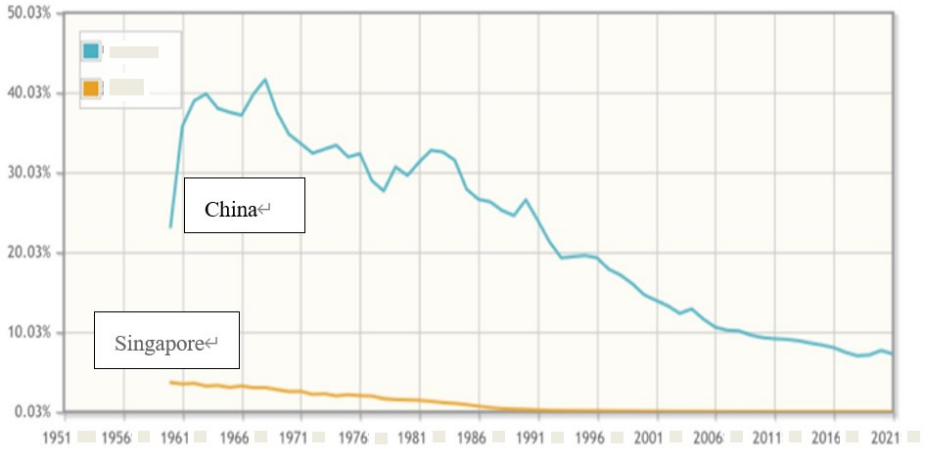

Figure 2: the economic structure.

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For the secondary industry. The share of secondary industry in China is relatively higher than that of Singapore. From 1958 to 2021, the share of the secondary sector in China fluctuated and oscillated. China's secondary industry proliferated from 1968 to 1978 due to economies of scale and the "Cultural Revolution," in which China advocated steelmaking and ironmaking. However, the share of secondary industry in China shows a continuous decreasing trend from 2011 to 2021. The reasons for this are twofold. First, due to the gradual increase in the cost of labor in China, Eastern foundry factories in Western countries have gradually moved out of China to countries with lower labor costs, such as Vietnam. Secondly, the proportion of secondary industry gradually decreases due to the impact of COVID-19, the adverse economic situation in China and abroad, and the impact of de-capacity in several industries. In contrast, Singapore's secondary industry has experienced a process of rising and then falling. First, the rise is because Singapore's manufacturing industry is dominated by high-value-added industries, which gradually rose due to the development of its industrial clusters in high-value-added fields such as aerospace, semiconductor, chemical, and biomedical sciences. However, the increasingly developed productivity will eventually manifest itself in a financial crisis in the form of overproduction. Therefore, due to the limited nature of material consumption and the broader scope of service consumption, Singapore undertook an industrial restructuring by vigorously developing the tertiary sector [3].

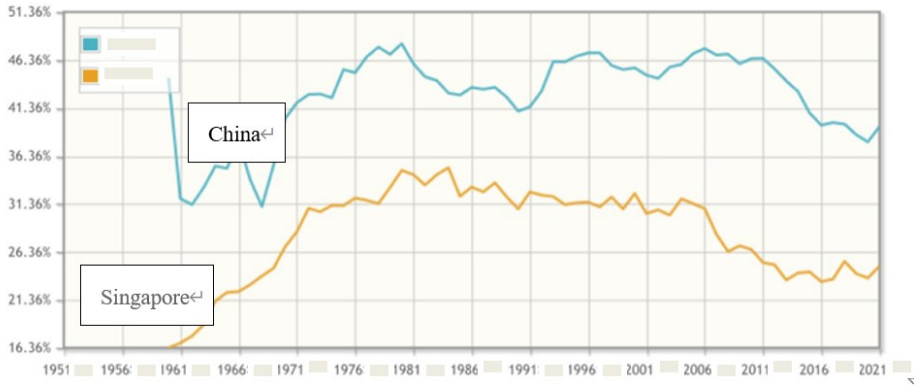

Figure 3: the secondary industry.

However, the share of tertiary industry in the national economy of Singapore is higher than that of China. From 1958 to 2021, Singapore's economic share of the tertiary industry remained stable at over 60% with less fluctuation. This is because Singapore has nearly no agriculture. To make up for this deficiency, Singapore has set up development zones to attract foreign investment, promoted a massive industrialization movement, and leveraged its geographical advantage to develop the tertiary industry. In contrast, China's economy has been upward during this time zone due to the economy of scale effect. The rapid development of China's social productivity has promoted the development of the tertiary industry, which is mainly effective services. Thus the share of the tertiary industry in China's economy has continued to rise.

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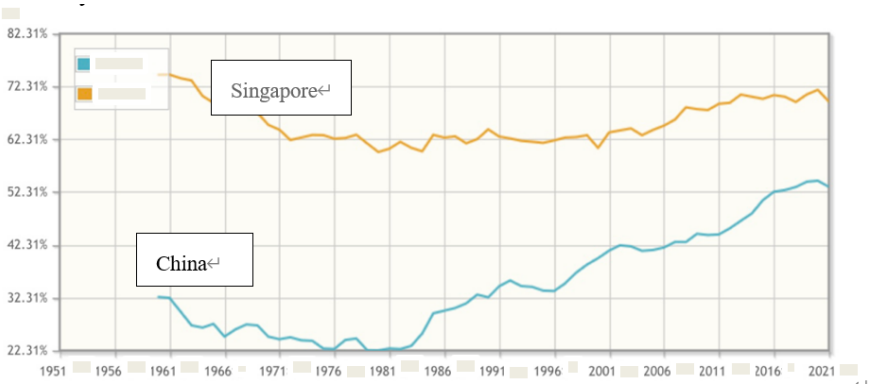

Figure 4: the share of tertiary industry.

5. Analysis

Through a detailed comparison of the share of the primary, secondary and tertiary industries between China and Singapore over a long period, the researcher analyzed the social reform and economic structure of the two countries in different periods.

As for the proportion of the primary industry, the overall trend of China is a temporary increase and a decline in volatility (from the founding of New China to about 1963), while that of Singapore is extremely low and continues to decline until it is flat.

For the secondary industry, except for the period from the founding of New China to about 1970 (China's volatility declined and rose, while Singapore's continued to rise), the development trends of China and Singapore are relatively consistent, both showing very volatile.

For the tertiary industry, unlike the primary and secondary industries, Singapore has an absolute comparative advantage (65% on average), while China has only about 25%. In addition, the overall development trend tends to be consistent, fluctuating downward and upward.

6. Conclusion

In conclusion, this research provides a comparative analysis of the similarities and differences between small (Singaporean) and large (Chinese) economies to examine the impact of different economic structures on the economic development of China and Singapore. More specifically, this research aims to investigate the economic sectors of China and Singapore, including raw materials, manufacturing, and services.

Besides, in terms of research methodology, this research adopts a longitudinal approach. Therefore, the general idea of this research is to select a period and then analyze the fluctuations in the ratio of various industrial structures in China and Singapore and the impact on economic growth. This period will be chosen to start in 1978 when China implemented its reform and opening-up policy, which was a turning point in the rapid economic development of the new China.

Last but not least, this research concludes that China's economic growth during the transition from the 20th century to the 21st century was fuelled by the following factors: A decline in the share of the primary sector in the economy during China's Cultural Revolution, an increase in the share of the tertiary sector in the economy, and productivity gains in all existing industries, which were then achieved through other reform activities, such as China's agricultural reform (changing collective farming to individual farming), state-owned enterprise reform (the government allowing private enterprises to enter the market) and accession to the World Trade Organisation [4].

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