

## **Determinants of Economic Performance of China**

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### **Abstract**

*This paper examines the determinants of China's economic performance during 1995-2017 as this development outcome is an economic prototype for developing countries. It employs an Ordinary Least Square technique and finds that proportion of FDI, export, government expenditure, and total debt as a percent of GDP have had a significant impact on GDP growth and GDP per capita growth of China. In addition, human capital largely contributes to economic growth. 1 percent increase in the level of human capital induces 0.21 percent increase in the economic growth for the short run and 0.39 percent increase in China in the long run. Similarly, urbanization induces a positive impact on GDP growth in the long run. Hence, a higher level of human capital and conducive business environment entice a higher inflow of FDI which helps to internalize the modern technology in different sectors of the economy for sustainable economic growth in China.*

*Keywords:* foreign direct investment, human capital, government expenditure, urbanization, technology.

### **Introduction**

The first major policy reform <sup>1</sup> in China started in November 1978, after the central planning era, was shifted from the commune system (collective farming) to the household responsibility farming system of agricultural production in the Xiaogang Village of Fengyang County in Anhui province. This system, simply, by the ownership transformation, induced more productivity in agriculture production, and hence it was implemented nationwide. In this system, the residuals of production transferred to the household from the government. The other two reforms at this time were the establishment of special economic zones (SEZs) on July 15, 1979, in four provinces: Shenzhen, Zhuhai and Shantou in Guangdong province and Xiamen in

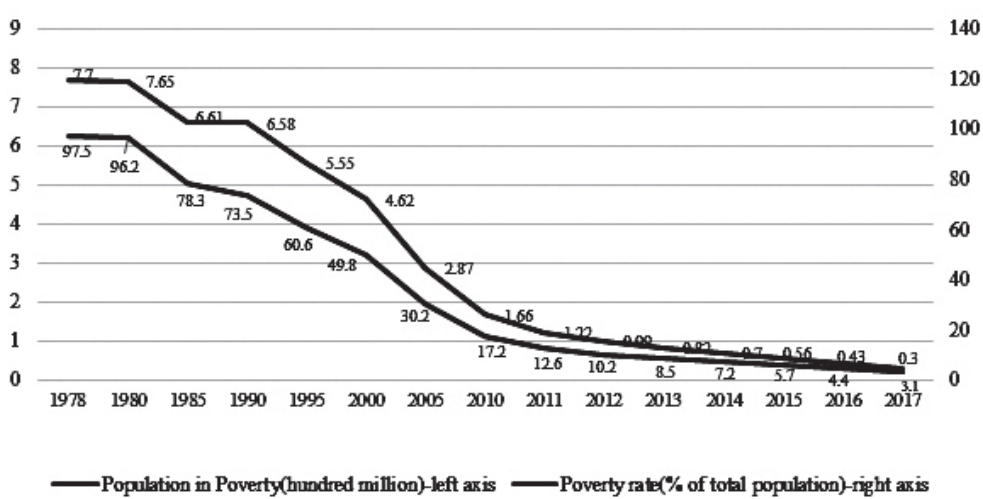
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1 The Third Plenary Session of the 11<sup>th</sup> Central Committee of the Communist party of China first declared the policy reform and opening- up strategy.

Fujian province, and implementation of the dual-track system<sup>2</sup> during 1978-1992. These policies created the basis for the sustainable economic growth of the country for the last forty years under the market -oriented economy.

**Figure 1** : Poverty Rate and Corresponding Poor Population of China during the period 1978-2017



Data source: State Council Information Office (2017); National Bureau of Statistics

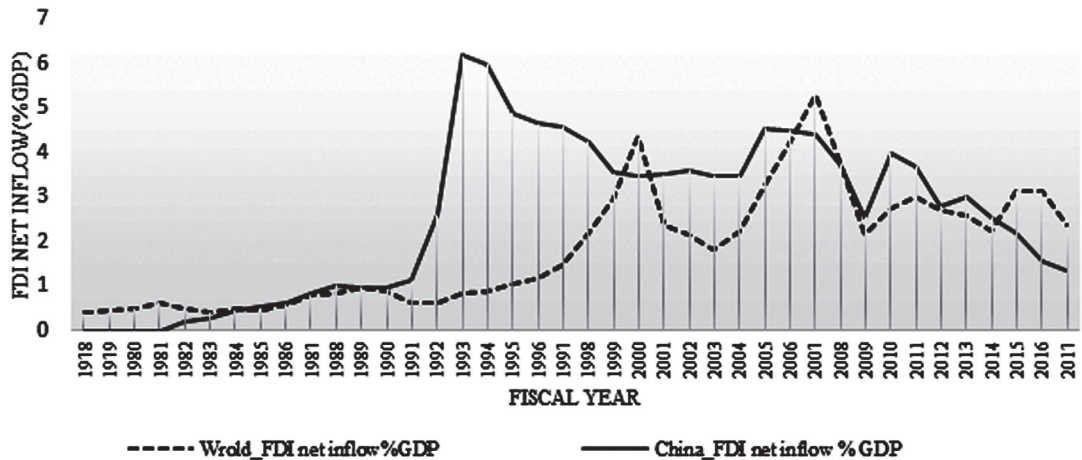
The 40 years’ average GDP growth is 9.6 percent and it was a remarkable achievement in the growth history of the world during this period. This consistent growth also largely contributed to the world’s GDP growth and is then translated into the improvement of the human capital. During this period more than 740 million people have been shifted above the poverty trap. Hence, China has also significantly contributed to reducing the global poverty rate and it has declared complete victory over the poverty in the beginning<sup>3</sup> of 2021.

Foreign direct investment (FDI) plays a very crucial role to mitigate the increasing demand for capital investment in developing countries. Lipsey (1999) argues that foreign direct investment is the least volatile source of foreign investment relative to other capital inflows and the most dominant portion of foreign investment in the developing world.

2 Case Study: China’s Dual-Track System Reform, FU Jun & ZHU liang- ISSAD, p.1.

3 The arduous task of eradicating poverty is one of the major outcomes as a miracle during the tenure of President Xi Jinping. Details of his view are reflected in <https://www.bbc.com/news/world-asia-china-56194622>

**Figure 2 :** FDI Net Inflow as % of GDP in World and China during 1978-2017



Because of the rapid growth of FDI and change in its pattern, as well as rising concerns about the causes and consequences of foreign investment and its contribution to the host country’s economy, scholarly interest in FDI has been accelerating (Moosa, 2002). The UNCTAD (2018) shows that FDI influx to developing countries have increased from US\$ 3.766 billion in 1970 to US\$ 670.658 billion in 2017 that is around 47 percent of the world’s total inflowing FDI. On the other hand, the outflow FDI in the world has also been growing from US\$ 14.14 billion in 1970 to US\$ 1.43 trillion in 2017. While, the FDI stock in the world economy has been growing from US\$ 1.221 billion to US\$ 6.898 trillion. It is evident from Fig.1 that China’s FDI inflow<sup>4</sup> as percent of GDP was higher during the 1990s peaked historically at 6.18 percent of GDP in 1993 and gradually declined. In 2017, FDI inflow in China is just 1.37 percent of GDP below the world’s average 2.37 percent of GDP.

This paper mainly focuses on identifying the key drivers of the economic growth of China during last 40 years opening up period since 1978 and delves into the question: What are the major drivers of the Chinese economy during the last forty

4 “FDI can improve the productivity and efficiency of local firms through knowledge spillovers such as learning by doing or learning by watching (demonstration effects), research and development (R&D), human resource movement, training, vertical industrial linkages, technical assistance and exposure to fierce competition”. (Chen, 2017), *China’s 40 years of reforms and development*-The liberalization of FDI policies and the impacts of FDI on China’s Economic Development, p. 605

years? This paper also contributes to the standing literature by providing the key growth drivers of the Chinese economy these will be useful for redesigning the growth policies in the future to boost up the living standard of the people and overcome the middle income trap which had been encountered by several developing countries after World WAR II. Rest of the paper is organized such that section 2 reviews some related literature, section 3 contains theoretical framework and methodology, section 4 presents data and compilation techniques, section 5 presents the result and discussion, and section 6 provides the conclusion.

## **Objectives**

The objective of this study is to improve the material standards of living by raising the absolute level of per capita income. Raising per capita income is also a stated objective of policy of the governments of all developing countries. The field of development economics is concerned with the causes of underdevelopment and with policies that may accelerate the rate of growth of per capita income. While these two concerns are related to each other, it is possible to devise policies that are likely to accelerate growth (through, for example, an analysis of the experiences of other developing countries) without fully understanding the causes of underdevelopment.

## **Significance**

Deng Xiaoping introduced the concept of the socialist market economy in 1978. Chinese people living in poverty dropped from 88 per cent in 1981 to 6 per cent in 2017. The reform opened the country to foreign investment and lowered other trade barriers. Economic Growth is important because it is the means by which we can improve the quality of our standard of living, It also enables us to cater for any increases in our population without having to lower our standard of living.

## **Literature Review**

There are different schools of thought for the sustained and long-run economic growth. Smith (1999), on the classical and neo-classical view, focused on the role of the market through the invisible hands, division of labor, education, human capital, increasing returns to scale, technology improvement, openness, and externalities. North (1981) highlighted the role of institutions and observes that institutions are the fundamental cause of growth, however, he further realized that institutions are man-made constraints imposed on human interactions. On the other hand, Schultz (1961) believed that society must invest in human capital, and hence human capital is

more fundamental than institution. He further argued that the investment in education, training, and health improve the opportunities of getting higher earning of the individuals.

Lipset (1960) suggested that growth in income and human capital promote institutional perfection. Lipset further argued that the growth leads to better political institutions, and more educated human resources are more likely to unpack their confrontations through conciliation and voting than vehement clashes as cited in Glaeser, et al. (2004). FDI can be taken as a catalyst of growth since increasing the saving rate leads to the higher growth of output per worker. Hence, FDI inflow is largely associated with the economic performance of a country, both its magnitude and stability, and with its general institutional quality, as captured by the “rule of law” (Fan et al. 2007).

**Table 1:** China in Comparison with the World: 1700-2015

	1700	1820	1900	1950	2001	2015
	(Population in million)					
China	138	381	400	547	1275	1387
World	603	1042	1564	2521	6149	7154
China in World (%)	23	37	26	22	21	19
	GDP (billion \$) (1990 International Dollar)					
China	83	229	218	240	4570	11463
World	371	696	1973	5326	37148	57947
China in World (%)	22	33	11	5	12	20
	Per-capita GDP (1990 International Dollar)					
China	600	600	545	439	3583	8265
World	615	668	1262	2110	6041	7154
China in World	0.98	0.90	0.43	0.21	0.59	1.16

Source: Angus Maddison, *World Economic Growth in the Last Millennium*. PKU Press, 2003. As cited in the lecture note: *Growth and Growth Drivers.ppt* (Professor: Yang Yao, 2018).

Moreover, FDI induced many benefits for the host countries: spillovers of high technology and positive externalities, modern production facilities, quality control procedures, managerial and marketing skills, employment opportunities, and backward linkages (supply chain from indigenous firms). All of these are the factors that contribute to socio-economic development (Moosa, 2002). Toulaboe, Terry, and Johansen (2009) found that foreign direct investment has a direct contribution to the growth and an indirect impact on social capital improvement in developing countries. They further observed that the advanced developing countries get more

benefit from FDI. Hence, due to the features of FDI as a formidable catalyst of the overall development of developing and emerging economies in narrowing down the development gap, the competition for FDI has been increasing amongst the developing countries. FDI also supports the improvement of human capital. An empirical study conducted by Gittens (2006) using generalized methods of moments (GMM) from the panel data of various developing countries from 1970 to 2010 indicated that FDI induces a positive and sanguine effects on secondary and high school enrollment rates, but not on the tertiary level enrollment rate. Using panel data from 1995 to 2001, Basu & Yao (2009) obtained the similar result that FDI has significant and positive impact on higher education.

Similarly, FDI is observed as an important engine for economic growth in many Southeast-Asian economies. FDI largely induced the improvement in economic performance, export growth, and capital formation in Indonesia, Malaysia, Philippines, Singapore and Thailand. Hence, the ASEAN countries have implemented lucrative FDI policies for their overall economic development according to the strategic goals of the growth in their strategic sectors (Jarvis, 2008).

The impact of openness to sustain economic growth in 49 developed and 156 developing countries, using three different methods of estimation: pooled OLS, fixed effect and generalized method of moments (GMM)s, during 1995-2009, is studied by Ramanayake and Lee (2015). They found that the opening up the economy for the integration of international market has adverse effect to the long run economic growth unless it is supported by the export growth in the developing countries.

Liu and Zhang (2018) investigated the impact of financial structure on economic growth using panel data from 29 provinces from 1996 to 2013 in China and observed that financial structure has significant impact on economic growth. Similarly, Mariana (2015) studied the impact of enrollment in education on economic growth by using vector error correction model during 1980-2013 in Romania and found that enrollment in higher education has strong positive impact on GDP per capita.

It is evident from the data since second world war that the looser Germany and Japan grew much faster than the USA and UK. Solow (1956) model provided the answer to the puzzle related to the key drivers of long-term growth in the economy and observed that by the proper combination of physical capital, human capital, and technology, the poor country grows faster than the rich countries.

## **Materials and Methods**

Secondary data have been taken to prove the models determinants of economy growth. This study has utilized Ordinary Least Square technique for identifying the determinants of economic growth. The neo-classical economic theory by Marshal (1890) suggested that some government interventions, indeed, are needed to neutralize the detrimental outcomes of free markets economy as the government can't be reluctant to minimize the income inequality of the society and creating hope for the people. Each government's primary objective is to provide basic needs to their citizens including security, basic education, basic health services, and social security measures. The cost of these goods and services can't be provided by the market mechanism as these goods and services are to be delivered under the significantly low prices in which the market and private sector, in general, are not interested. However, the free-market mechanism is a better way of resource allocation in the society in most of the cases except in the market failure condition, addressing the externalities and maintaining the public goods. Hence, the role of market and the role of government are also incorporated in the model by using inflation and government expenditure.

The structural economic theory further believed that a high level of government intervention is necessary for sustained economic growth. If the economy faces recession and pandemic, there will be some adverse effects like higher unemployment and lower economic wellbeing in the society via lower income generated from the lower output. To this end, suitable government fiscal and monetary policy can be an appropriate measure to overcome the recessionary condition. World Bank also introduced the market-friendly model in 1991. This model, basically, considered the four main elements- investment in human capital, global linkages via globalizing trade and services, stable macroeconomic condition, and competitive micro-economy (World Bank Report, 1991). The competition leads to innovation, the diffusion of technology, and efficient use of resources (WDR, 2010). Under these theoretical frameworks with China's gradual reform and opening-up policy are taken into consideration while formulating the model. China became a member of WTO in late 2001. Hence, the impact of WTO accession on the Chinese economy is also analyzed using a dummy variable in the model.

## **Empirical Models**

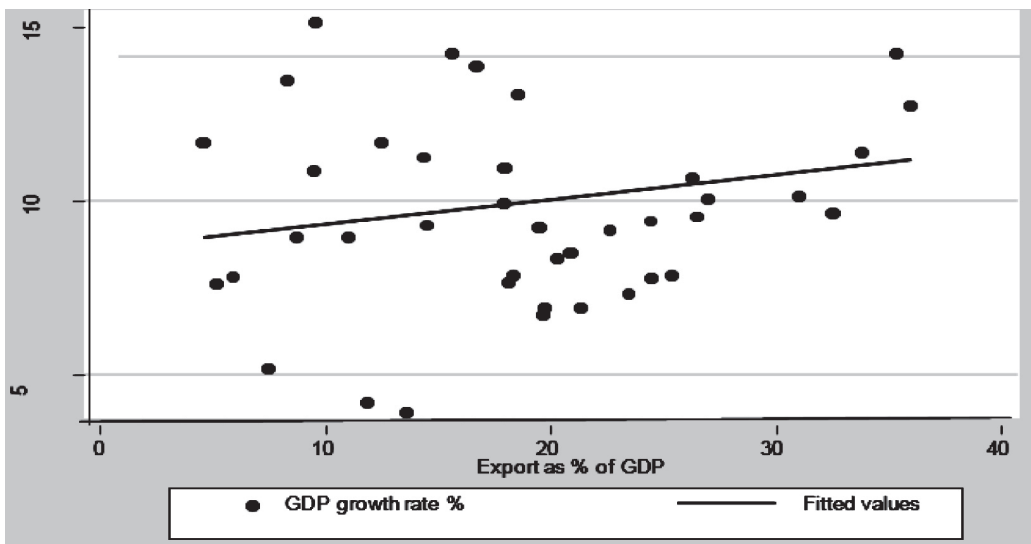
The empirical model consists of the variables under four different categories: outward orientation, government indicators, macroeconomic indicators, and human

capital indicators with some policy dummy variables. The effectiveness of the policy shift is analyzed with the help of a dummy variable. The variable export ( $X_t$ ) and foreign direct investment (FDI) as a percentage of GDP are included under outward orientation. These variables measure the degree of the global linkages through market behavior. The variable under the government indicator is government spending (GEXP) as a percentage of GDP. This variable can be used as a fiscal policy to address the shocks, if any, in the economy. The macroeconomic variables include inflation rate (INFLATR) and government debt (DEBT) as a percentage of GDP. Human capital is measured by the secondary or higher education enrollment rate in the model. The regression equation for the study of determinants of economic growth of China is specified as follows:

$$Y_{it} = \beta_0 + \beta_1 HU_t + \beta_2 FDI_t + \beta_3 FDI_{t-1} + \beta_4 GEXP_t + \beta_5 X_t + \beta_6 DEBT_t + \beta_7 Urbanp_t + \beta_8 INFLATR_t + \beta_9 \phi + \delta t + \epsilon_t$$

Where the suffix  $t$  represents the index for time period.  $\phi$  represents the dummy variable for the liberal policy shift, which takes value 0 for period 1978-2001 and 1 for period 2002-2017,  $\delta t$  is the time trend, and  $\epsilon_t$  is an error term. Due to the lack of data for the total debt of China during 1978-1994, this study mainly covers the period 1995-2017.

**Figure 3:** Two-way scatter plot of GDP Growth rate and Export as % of GDP



The separate models for GDP growth rate and GDP per capita growth rate during 1995-2017 are estimated and analyzed. The following table provides the data sources and description of the variables used in the models.



**Table 2:** Data Sources and Description of the Variables

<b>Variable</b>	<b>Definition</b>	<b>Source</b>
$Y_{\text{tp}}$	GDP per capita growth (percent)	World Development indicator, 2018
$Y_{\text{rt}}$	Growth rate of GDP (percent)	World Development indicator, 2018
$GEXP_t$	Government expenditure as percent of GDP	World Development indicator, 2018
$X_t$	Export (Total) as percent of GDP	World Development indicator, 2018
$INFLATR_t$	Inflation rate	World Development indicator, 2018
$\phi$	Year Dummy variable 0 - for period 1978-2001 1 - for period 2002-2017	
$FDI_t$	Net inflow of Foreign Direct Investment as percent of GDP	World Development indicator, 2018
$FDI_{t-1}$	Net inflow of Foreign Direct Investment as percent of GDP in the previous year	World Development indicator, 2018
$DEBT_t$	Central Government Debt, as percent of GDP	International Monetary Fund, Government Finance Statistics, 2018
$Urbanp_t$	Proportion of population living in urban area (percent)	World Development indicator, 2018
$HU_t$	Secondary or higher enrollment rate percent.	World Development indicator, 2018
	Tertiary enrollment rate percent.	World Development indicator, 2018

Table 2 provides the summary of the dataset used in this study. The dataset consists GDP per capita growth rate, GDP growth rate, government expenditure as percent of GDP, export as a percent of GDP, inflation rate, net inflow of foreign direct investment as a percent of GDP, central government debt as a percent of GDP, the proportion of the urban population, and human capital index as determined by the

secondary or higher education enrollment rate. Most of the data are taken from World Development Indicator, 2018 and the government debt statistics are taken from the Government Finance Statistics, International Monetary Fund (IMF), 2018.

### Discussion and Results

**Table 3:** Regression Result for the Determinants of Economic Growth during 1995-2017.

Variables	Human capital(HU) as measured by the secondary school enrollment rate (Model 1) (1995-2017)
	GDP growth rate (Yrt)
HU <sub>t</sub>	0.1917** (2.28)
FDI <sub>t</sub>	1.1655*** (3.12)
FDI <sub>t-1</sub>	0.5096* (1.99)
GEXP <sub>t</sub>	0.4617* (2.01)
X <sub>t</sub>	.4550*** (6.03)
DEBT <sub>t</sub>	.7484*** (5.47)
Urbanp <sub>t</sub>	-1.013*** (-3.71)
Year dummy (φ)	0.2947 (0.42)
Inflation(INFLATR <sub>0</sub> )	0.0307 (0.69)
Constant	-6.6650 (-1.23)
R-squared	0.95
Number of observation	22

Robust Standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.10

Table 3 illustrates the regression coefficient for the determinants of the economic growth of the country during 1995-2017. The human capital, export,

FDI, government expenditure, debt, and inflation rate have a positive impact on the economic growth of China during 1995-2017. The regression result is summarized in table 3. The estimating equation indicated that a 1 percent increase in human capital as measured by secondary enrollment rate leads to the 0.19 percent increase in the GDP growth rate *ceteris paribus*. Similarly, a 1 percent increase in the net inflow of FDI as a percent of GDP induces 1.16 percent growth of GDP *ceteris paribus*. Hence, FDI has a direct impact on growth as observed by Toulaboe, Terry, and Johansen (2009). More interestingly, 1 percent increase in the total debt per GDP contributes 0.75 percent increase in the GDP growth of China during 1995-2017 *ceteris paribus*. This significant and positive impact of total debt on GDP growth is consistent with the study of Egbetunde (2012) using Vector Auto Regression (VAR) model for Nigeria. His model shows that the public debt and economic growth have a long-term relationship and they are positively related as long as it is used for infrastructure development of the economy (Egbetunde, 2012).

The regression result from table3 also indicates that a 1 percent increase in the export per GDP contributes 0.45 percent of the GDP growth *ceteris paribus*. However, rapid urbanization has a negative impact on the growth model in the shorter period. Inflation also has a positive impact on economic growth, and growth further induced inflation in the economy. The average economic growth of Japan since 1978 for the last 40 years is around 2 percent, however, it is evident from Japan that the developed Japanese economy faced no inflation, and the average growth rate of GDP from 1995 to 2017 is recorded around 1 percent (WDR 2018). It is also observed that the impact of liberal trade policy has no significant effect on the economic growth of China as most of the growth and structural transformation occurred before the accession of WTO in 2001.

A similar result is observed in the per capita growth model as presented in the table5. Human capital as measured by the secondary school enrollment rate, FDI, government expenditure, and export have a positive impact on the per capita growth of GDP.

The regression result shows that 1 percent increase in the secondary school enrollment rate induces 0.21 percent increase of GDP growth rate during 1995-2017. The following table4 presents the growth drivers of Chinese economy for the longer period and concludes that human capital induces higher impact on GDP growth rate in the long run as it helps to internalize the benefits from foreign direct investment in the country.

**Table 4:** Determinants of China’s Growth during 1982-2017

Variables	(1)	(2)	(3)	(4)
	Yrt	Yrt	Yrt	Yrt
	1982-2017		1995-2017	
HU <sub>t</sub>	0.391** (0.165)	0.111 (0.140)	0.198** (0.089)	-0.150 (0.094)
FDI <sub>t</sub>	0.755* (0.378)	1.227** (0.465)	1.034** (0.407)	1.745*** (0.427)
FDI <sub>t-1</sub>	-0.578 (0.365)	-0.354 (0.459)	0.334 (0.355)	0.152 (0.510)
GEXP <sub>t</sub>	1.280** (0.603)	1.055** (0.491)	0.677*** (0.174)	-0.085 (0.179)
X <sub>t</sub>	0.222** (0.102)	0.243*** (0.080)	0.487*** (0.068)	0.068 (0.050)
Year dummy (φ)	3.618** (1.681)	1.106 (1.228)	0.487 (0.594)	-0.004 (0.669)
Inflation(INFLATR <sub>t</sub> )	0.258*** (0.073)	0.154* (0.089)	0.023 (0.046)	0.175** (0.063)
DEBT <sub>t</sub>			0.721*** (0.108)	
DDEBT <sub>t</sub>				0.370*** (0.070)
timeT	-1.162*** (0.406)	-2.079*** (0.719)	-1.309*** (0.345)	0.417 (0.295)
Urbanp <sub>t</sub>		1.415** (0.682)		
Observations	35	35	23	22
R-squared	0.619	0.664	0.956	0.944
Adj. R squared	0.502	0.543	0.925	0.903

Robust standard errors in parentheses,\*\*\* p<0.01, \*\* p<0.05, \* p<0.10

Table 4 explains that during the last 35 years since 1982, the GDP growth rate of China is explained by human capital level as measured by secondary enrolment rate, FDI inflow as a percent of GDP, export as a percent of GDP, government expenditure as a percent of GDP, and inflation rate. Moreover, in the model (2) of table 4, urbanization also shows a significant impact on the GDP growth rate of China. The following table5 shows the determinants of GDP per capita of China.

**Table 5:** Regression Result for the Determinants of per capita GDP Growth during 1995-2017.

Variables	Human capital(HU) as measured by the secondary school enrollment rate (Model 2)
	(1995-2017)
	Per capita GDP growth rate (Yrp)
HU <sub>t</sub>	.2148** (2.49)
FDI <sub>t</sub>	1.1049*** (2.89)
FDI <sub>t-1</sub>	.4764* (1.81)
GEXP <sub>t</sub>	.5199** (2.22)
X <sub>t</sub>	.4736** (6.13)
DEBT <sub>t</sub>	.7473*** (5.33)
Urbanp <sub>t</sub>	-1.0516*** (-3.76)
Year dummy (φ)	0.5224 (0.72)
Inflation(INFLATR <sub>t</sub> )	0.0349 (0.76)
Constant	-8.4918 (-1.53)
R-squared	0.95
Number of observation	22

Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.10

This result shows that human capital, FDI, government expenditure, export, and debt induce significant positive impact on GDP per capita growth of China.

### **Robustness of Results**

The robustness of the regression result is analyzed from the new model where secondary school enrollment rate as a measure of human capital is replaced by tertiary

education enrollment rate. The regression results are summarized in the following table 6.

**Table 6 :** Regression Equations for Growth Models where Human Capital is Measured by Tertiary Enrollment Rate.

Variables	Human capital(HU) as measured by the tertiary enrollment rate (Model1) (1995-2017)	Human capital(HU) as measured by the tertiary enrollment rate (Model2) (1995-2017)
	GDP growth rate (Yrt)	Per capita GDP growth rate (Yrp)
HU <sub>t</sub>	-.1337*** (-4.43)	-.1459*** (-4.91)
FDI <sub>t</sub>	1.4305*** (5.18)	1.3928*** (5.14)
FDI <sub>t-1</sub>	.5218** (2.66)	.4834*** (2.51)
GEXP <sub>t</sub>	.2757* (1.85)	.3093** (2.12)
X <sub>t</sub>	.3564*** (8.50)	.3643*** (8.87)
DEBT <sub>t</sub>	.7433*** (8.12)	.74*** (8.25)
Urbanp <sub>t</sub>	-.3534*** (-5.33)	-.3185*** (-4.9)
Year dummy (φ)	-.4802 (-0.92)	-.3616 (-0.71)
Inflation (INFLATR <sub>t</sub> )	-.0009 (-0.03)	-.0015 (-0.04)
Constant	-13.3929* (-3.02)	-15.7516* (-3.63)
R-squared	0.97	0.97
Number of Observation	22	22

Standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.10

The regression results in table 6 for model-1 and model-2 show similar characteristics for the dependent variable except for two variables: human capital measured by the tertiary enrollment rate and inflation rate, however, the inflation rate is not significant in the model. All other significant variables show consistent results in these models. Hence, it indicates that the OLS estimates are robust in these regression equations.

## **Conclusion**

The growth model for the Chinese economy during 1995-2017, using multiple regression analysis shows that FDI as a percent of GDP, export as percent of GDP, government expenditure as a percent of GDP, and total debt as a percent of GDP induce a significant and positive impact on GDP growth and GDP per capita growth of China. It is observed that the liberal trade policy-shift due to WTO accession in 2001 has no significant impact on the Chinese economy during this period 1995-2017, however, it has a significant impact for the longer period covering 1982-2017. Human capital as determined by secondary school enrollment rate has a positive and significant impact on the growth of the economy, however, human capital, as measured by tertiary enrollment rate, has shown the opposite result. Further research is necessary to explore the impact of urbanization and human capital as measured by the tertiary school enrollment rate in China.

In summary, a lot of reforms including the market reform by adopting dual price (up to 1993), floating exchange (1994), RMB pegged with USD (2005); government function reform by implementing SOE reform, tax system reform, financial system modernize, and private companies reform to promoting urbanization, implementing Hukou system, adopting agricultural modernization from collective farming to household responsibility system, land reform, and special economic zones induced sustainable growth before the 1990s. Similarly, the reform to promoting service industry: education, health care digitization; human capital reform: compulsory school education, talent hunt for internationalization and innovation, student exchange with international universities, and unique mechanism of government role in private companies to foster transparency and accountability enhanced production mechanism through mass production, batch production and instant production induced such long and sustained growth in Chinese economy over the last 40 years since 1978. Technology transfer mechanism during FDI inflow also facilitated the modernization of Chinese economy during this period. Hence, the strategy of crossing the river by feeling the stone is remained as one of the principle stratagems to internalize the reforms and opening-up policies. Under the evidence-based policymaking system, the Chinese government has been utilizing it gradually in different sectors of the economy in a planned, sustainable, and risk-free environment. Hence, the proper sequencing of the reform and open-up policies under visionary leadership, committed bureaucrats, and experimental policy implementation mechanism create a conducive environment for good governance and sustains the growth in the long run.

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## Appendices

**Table A1 : Summary statistics of the variables.**

Variables	Min.	Max.	Mean	Std. Dev	Expected sign to dependent variable
$Y_{tp}$	2.3936	13.6383	8.5428	2.6631	Dependent variable
$Y_{tt}$	3.9071	15.1391	9.5922	2.6884	Dependent variable
$HU_t$ (Secondary enrollment rate)	30.0230	98	9.5227	22.1349	+ve
$HU_t$ (Tertiary enrollment rate)	2.8525	49.6	17.9027	14.5779	+ve
$FDI_t$	.2096	6.1868	2.8428	1.6758	+ve
$FDI_{t-1}$	.2096	6.1868	2.8848	1.6810	+ve
$GEXP_t$	12.4562	16.6333	13.931	.9399	+ve
$EX_t$	4.5559	36.0350	18.7707	8.4373	+ve
$DEBT_t$	20.448	46.96	29.7223	7.9652	?
Urbanization	17.9	57.96	35.3719	12.2683	?
Inflation(INFLATR <sub>0</sub> )	-1.2684	20.6006	4.9294	4.6835	+ve

