The Role of Institutions in Economic Development in Hong Kong

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Abstract

This article uses Hong Kong as a case study to analyse the impact of institutions on economic growth. The Chinese territory of Hong Kong is a special administrative area with its own government and a free market economy. Since it went from being a modest fishing town to a worldwide financial and commerce centre in less than a century, Hong Kong is often held up as an exemplary model of economic growth. The rule of law, government, and economic climate in Hong Kong are all examples of the city's renowned institutional excellence. This article summarises research on the notion, categorization, and effect of institutions on economic growth from both a theoretical and empirical perspective. To further evaluate the impact of government spending (GG) on government financial condition (GFC), regional development expenditure (RDE), and itself, a vector autoregression (VAR) model is employed in this paper. The article concludes that GG significantly affects itself and GFC positively, but has a negative effect on RDE. According to the article's findings, Hong Kong's institutions are very influential in the city's economic results and performance, and policymakers should take a nuanced, context-aware approach to enhancing their quality and efficacy.

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Background

The Chinese territory of Hong Kong is a special administrative area with its own government and a free market economy. Since it went from being a modest fishing town to a worldwide financial and commerce centre in less than a century, Hong Kong is often held up as an exemplary model of economic growth. Institutional quality refers to the high standards of rule of law, governance, and business climate that Hong Kong has consistently upheld (Lai et al., 2016).

A society's institutions are the systems of laws and conventions that determine how its members behave and interact with one another. The economic results and performance of a country or region are shaped by the incentives, limitations, and opportunities established by its institutions. In order to attain equitable and sustainable growth, it is crucial to comprehend the function of institutions in economic development (Keohane, 2017). The classical economists, including Adam Smith, understood the significance of institutions to economic growth, hence this idea has a long history in economic philosophy. However, institutions only became a focal point of economic theory and empirical study in the late 20th century (O'Brien, 2017; Prabowo, Sasongko, & Damayanti, 2022).

Institutions can be classified into different types and levels, depending on their scope, function, origin, and evolution. For example, North (1990) distinguishes between formal institutions, such as laws, regulations, contracts, and property rights, and informal institutions, such as norms, values, customs, and beliefs. Williamson (2000) distinguishes between four levels of institutions: level 1 refers to the embedded institutions that reflect the culture and ideology of a society; level 2 refers to the institutional environment that defines the basic rules of the game; level 3 refers to the governance structures that determine how transactions are organized and enforced; and level 4 refers to the resource allocation mechanisms that determine how resources are distributed and utilized (Lajqi & Krasniqi, 2017).

The role of institutions in economic development can be analyzed from both a positive and a normative perspective. From a positive perspective, institutions can explain why some countries or regions are more successful than others in achieving economic growth and development. From a normative perspective, institutions can provide guidance on how to improve the quality and performance of institutions to enhance economic growth and development (Prasetyo & Kistanti, 2020).

From a positive perspective, institutions can affect economic development through various channels, such as; Productivity: Institutions can influence the efficiency and effectiveness of production processes by affecting the allocation and utilization of resources, such as labor, capital, land, and technology (Wu et al., 2021). Institutions can also affect the innovation and diffusion of new products, services, and processes by affecting the incentives and capabilities of agents, such as firms, entrepreneurs, and researchers. For example, strong property rights and contract enforcement can encourage investment, competition, and specialization; while weak property rights and contract enforcement can discourage investment, competition, and specialization.

Investment: Institutions can influence the quantity and quality of investment by affecting the savings and financing decisions of agents, such as households, firms, and governments. Institutions can also affect the risk and return of investment by affecting the uncertainty and volatility of economic conditions. For example, sound fiscal and monetary policies can foster macroeconomic stability and confidence; while unsound fiscal and monetary policies can generate macroeconomic instability and uncertainty (Richardson & Peihani, 2015).

Trade: Institutions can influence the volume and composition of trade by affecting the costs and benefits of trade transactions, such as tariffs, quotas, standards, and logistics. Institutions can also affect the integration and cooperation of trade partners by affecting the harmonization and coordination of trade policies, agreements, and institutions. For example, trade liberalization and facilitation can reduce trade barriers and costs; while trade protectionism and distortion can increase trade barriers and costs (Elliott & Bonsignori, 2019).

Human capital: Institutions can influence the accumulation and utilization of human capital by affecting the education, health, training, and employment opportunities of agents, such as workers, students, and teachers. Institutions can also affect the mobility and diversity of human capital by affecting the migration, integration, and inclusion decisions of agents, such as

migrants, refugees, and minorities (Widarni, Irawan, Harnani, Rusminingsih, & Alim, 2022). For example, universal access to quality education and health services can improve human capital outcomes; while limited access to quality education and health services can impair human capital outcomes (Ruggeri & Yu, 2023). From a normative perspective, institutions can be improved by following various principles, such as; Effectiveness: Institutions should be able to achieve their intended objectives and outcomes in an efficient and timely manner. Effectiveness can be enhanced by improving the design, implementation, monitoring, and evaluation of institutions, as well as by ensuring the availability and quality of resources, such as information, technology, and human capital (Oppong et al., 2016).

Accountability: Institutions should be able to justify and explain their actions and decisions to the relevant stakeholders and to the public. Accountability can be enhanced by improving the transparency, participation, and oversight of institutions, as well as by ensuring the enforcement and sanctioning of rules, norms, and standards (Sternberg, 2019).

Adaptability: Institutions should be able to respond and adjust to the changing needs and preferences of agents and to the changing conditions and challenges of the environment. Adaptability can be enhanced by improving the flexibility, diversity, and innovation of institutions, as well as by ensuring the learning and feedback of experiences, knowledge, and best practices (Wise et al., 2014).

Research Method

We proxied Adjusted Gross fixed capital formation variable, with the Research and development expenditure variable. For GDP growth variable. We use secondary data from the world bank. Our research period is from 2000 to 2020. We use the following equation:

$GG_t = \beta_0 + \beta_1 GFC_t + \beta_2 RDE_t + e_t$ eql 1

$GFC_t = \beta_0 + \beta_1 GG_t + \beta_2 RDE_t + e_t$ eql 2

$RDE_t = \beta_0 + \beta_1 GG_t + \beta_2 GFC_t + e_t$ eql 3

Description:

GG : GDP growth
GFC : Gross fixed capital formation
RDE : Research and development expenditure
β : the magnitude of the effect of causality
e = Error term
t = Time period
eql: equation

Table 1. Variable Description

Variable	Explanation	Data type	Source
GDP growth	GDP growth rate per capita in constant annual local currency terms. All summaries are calculated using constant 2015 U.S. dollar values. Gross domestic product (GDP) equals the total	Percent	World Bank

	of all product taxes on those items plus any subsidies not factored into the value of those products. Depreciation of manufactured assets and deterioration of natural resources are not factored into the calculation.		
Gross fixed capital formation	Land improvements (fences, ditches, drains, etc.); plant, machinery and equipment purchases; and the construction of roads, railways, schools, offices, hospitals, private residential dwellings, commercial and industrial buildings; all fall under the category of gross fixed capital formation (formerly known as gross domestic fixed investment). The net acquisition of valuables is included in capital creation in the 1993 SNA.	Percent	World Bank
Research and development expenditure	Literacy among adults is measured by the proportion of those aged 15 and up who can read and write clearly enough to comprehend a brief, generic statement about everyday life.	Percent	World Bank

Result and Discussion

Table 2. Root Test Results

Variabel	Unit Root	Statistics for the Augmented Dickey Fuller	Probability	Description

GDP growth (GG)	Level	-2.083660	0.2525	Tidak Stationary
	First Different	-4.727410	0.0015	Stationary
Gross fixed capital formation (GFC)	Level	-1.226540	0.6416	Tidak Stationary
	First Different	-3.144402	0.0401	Stationary
Research and development expenditure (RDE)	Level	-1.376338	0.5727	Tidak Stationary
	First Different	-2.653919	0.1002	Tidak Stationary

*the limit value used at the significance level of 0.05

Based on the findings shown on Table 2. The fact that GG, GFC, LR and RDE stationary data are not at the same level, so that the first differencing is put into action. The results of the first differencing show that the data is stationary with a probability value < 0.05. After knowing the stationarity of the data held, then testing is carried out to calculate the best lag duration to utilize. The method used determining the optimal lag duration LogL, LR, FPE and AIC. The smaller the value of LogL, LR, FPE, AIC, the lag is the most optimum lag. The outcomes of the test are shown on the next table

Table 3. Maximum Lag Test

Lag	LogL	LR	FPE	AIC
0	-68.24469	NA	0.249346	7.124469
1	-39.44155	46.08502*	0.034976*	5.144155*

Table 3. Shows the optimum lag testing of the VAR model using the LogL, LR, FPE and AIC criteria. Based on these results, it is known that the optimum model is found in Lag 1 because the LogL, LR, FPE and AIC values in Lag 1 are the smallest compared to the previous Lag.

Table 4. Cointegration Test

Hypothesized at Most	Eigenvalue	Trace Statistic	0.05 Critical Value	Probability
None	0.611609	17.96913	21.13162	0.1310
1	0.340061	7.896546	14.26460	0.3893
2	0.002908	0.055339	3.841466	0.8140

* Max-eigenvalue test indicates no cointegration at the 0.05 level

The cointegration test results are shown in table 4 above explain that all probability value is above 0.05. It means all the probabilities are not significant. Analysis of VAR for identify connection among the researched variables studied that one variable have influence other variables in short term. The coefficients on the VAR analysis can be used to determine the influence between variables. If the coefficient value is less than the t-statistic value, then there is an influence relationship between these variables.

Table 5. VECM Estimation Results

	D(GG)	D(GFC)	D(RDE)
D(GG(-1))	0.643634	0.032169	-0.000845

	(0.24897)	(0.11575)	(0.00324)
	[2.58514]	[0.27791]	[-0.26045]
D(GFC(-1))	0.789399	0.899711	-0.010247
	(0.57928)	(0.26931)	(0.00755)
	[1.36273]	[3.34075]	[-1.35738]
D(RDE(-1))	32.36197	-14.78903	1.189903
	(22.3121)	(10.3732)	(0.29076)
	[1.45042]	[-1.42570]	[4.09235]
C	22.89202	20.10829	0.041254
	(19.6036)	(9.11394)	(0.25547)
	[1.16775]	[2.20632]	[0.16148]

Considering what the VAR analysis revealed, could be said that relationship between GG and GG has a positive significant impact because the coefficient value's at 0.643634, this value less than the 2.58514 t-statistic's value. Significant correlation exists between GG and GFC, meaning that the two variables related to each other because the coefficient value is at 0.032169 less than the 0.27791 t-statistic value. The significant correlation also found exists between GG and RDE, because the coefficient value is at -0.000845 less than the -0.26045 t-value statistic.

Conclusion

The presence of GG causes an uptick in GG itself. The effect is significant at the 5% level of statistical significance since the coefficient value, 0.643634, is smaller than the t-statistic value, 2.58514. The VAR analysis also reveals that there is a positive and statistically significant relationship between GG and GFC, with higher GG levels resulting in higher GFC levels. The impact is significant at the 5% level since the coefficient value, 0.032169, is smaller than the t-statistic value, 0.27791. Furthermore, the VAR analysis demonstrates that GG has a negative and substantial influence on RDE, suggesting that an increase in GG results in a reduction in RDE. The effect is significant at the 5% level of statistical significance since the coefficient value of -0.000845 is smaller than the t-statistic value of -0.26045.

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