
IMPACT OF GOVERNMENT EXPENDITURE ON ECONOMIC DEVELOPMENT IN TAIWAN

¹*Li Chen Sharpe, ²Dr. Wang Uhlig Conrad & ³Dr. Zhang Juniper Palley, PhD
¹*Postgraduate Student, University of Taipei
^{2&3}Lecturers, University of Taipei
*Email of the corresponding author: shensharpe@gmail.com

Publication Date: July 2022

ABSTRACT

Purpose of the study: Taiwan is among the presently industrialized nations. Government expenditure is regarded as one of the critical factors that increase the economic development of a region. Thus, the study sought to examine the impact of government expenditure on economic development in Taiwan.

Research methodology: The study was literature based. The study relied on the literature review to make inferences.

Findings: Government expenditure has a positive effect on economic development. Government nourishes economic infrastructure to facilitate economic development, improve resource allocation and enhance private sector productivity. Government expenditure provides subsidies, free education and healthcare facilities to the people and impacts economic development. Government expenditure can reduce the cost of doing business due to the developments of the infrastructure. Government expenditure on the education system can increase the skills and competency of the people, thus enhancing production efficiency, translating to significant economic development.

Conclusion: Government expenditure significantly impacts economic development. The expenditure on the health sector, security, infrastructure and other amenities significantly increases business activities, thus stimulating economic development. Hence, government expenditure has a significant impact on the economic development in Taiwan.

Recommendations: It is recommended that government expenditure by the Taiwan government should be increased. The government should only spend when there is a need to stay away from generating inflation in the country. The government needs to intensify efforts to make sure that resources are effectively managed and invested in productive areas and diversification of the economy to improve productive tasks and increase economic development. Also, there is a need to have a high level of transparency and accountability of government spending in different areas to avoid directing public funds into the personal accounts of government officials and employees.

Keywords: *Government expenditure, economic development, Taiwan*

INTRODUCTION

Government expenditure is regarded as one of the critical factors that increase the economic development of a region (Hsiao & Hsiao, 2019). In the long run, both kinds of government expenditure positively affect the development rate. But switching from government consumption to government investment expenditure increases the development rate. In other words, government investment expenditure is also more effective in the long run (Huh & Park, 2018). Over the past sixty years, Taiwan has attained an exceptional record of fast economic development, steady costs and fair earnings disbursement due to the combined undertakings of its citizens and government matched by well-tailored financial development techniques (McCahery & Vermeulen, 2019). The significance of government expenditure intensifies within nations where public resources continue to be insufficient because of inefficient tax obligation methods, unreliable tax agencies, development in the shadow economy, resources trip to tax paradises and trade liberalization and a decrease in tariffs (Bardhan, 2020). South Asia is an area where the function of government expense has not been satisfactorily efficient throughout the years as governments could not resolve vital problems like significant shortages, sky-rocketing public debts, broadening revenue inequality, little tax obligation to GDP ratio, increase in non-productive expenditure and reducing living criterion of its citizens.

Taiwan is among the presently industrialized nations of Asia and the globe's third-biggest holder of foreign exchange income after Japan and China (Huang, 2021). The performance between Taiwan and other Asian Tigers has broadened in the last few years. Taiwan has been a critical exporter of consumer commodities like footwear, playthings, and umbrellas. Export-oriented development approach, the government established the Law for the Inspiration of Investment in 1960 to promote businesses to enter the international market by giving tax obligation motivations. Moreover, since 1966 Taiwan has developed most of the Export Processing Zones (EPZs), which gave capitalists a framework, structured the management procedure for company procedures, and delivered tax motivations. EPZs led to job creation for the rural population and encouraged international financial investment and innovation knowledge (Rondinelli, 2020). The light sector, combined with the global market, was the development driver for Taiwan's economy in the 1960s. In the 1970s, Taiwan began nurturing complex markets, especially petrochemicals and steel. The exports from the developing light market and arising hefty sector kept broadening throughout this

time and brought Taiwan's economy to the front (Chen, 2017). Despite this, the surge of many other growing nations with enough and cheaper lower forces wore down Taiwan's comparative benefit in labor-intensive manufacturing. Bearing in mind the subsiding energy of the labor-intensive, export-oriented model, the government redoubled its industrial plan both in scientific research and modern technology development. In 1973, the government developed the nonprofit Industrial Modern Innovation Study Institute was started to perform applied study and nurture firms by giving technical solutions and moving its study to them. In 1980, Hsinchu Science Park was founded to motivate the developing advancement of sophisticated sectors. These two campaigns brought talent abroad to Taiwan and generated large tech organizations like United Microelectronics Corp and TSMC, which are among the globe's leading semiconductor foundries. Taiwan is just one of the minority countries that have been able to balance focus on high economic development and price security. Besides, throughout both global oil issues, Taiwan's rate of change has been set at a modest state given the 1960s. Presently, Taiwan has one of the best disbursements of revenue circulation of any nation in the globe. In 2010, the niche between the greatest and cheapest quintiles of income was relatively 6.19, less than the USA's 9.59 in 2009, Singapore's 12.9, and Japan's 6.22 (Oztemel & Gursev, 2020). In more than the past 6 six decades, Taiwan has finished in a notably brief time frame procedure that made sophisticated commercial nations one to two centuries to obtain, going through the speedy change from a postwar farming economy to an understanding economy led by modern and customized service sectors. From 1952 to 2010, Taiwan's per capita GDP increased from US\$ 213 to US\$ 18,588; its GDP increased from US\$ 1.711 billion to US\$ 430.1 billion; its foreign trade broadened from US\$ 303 million to US\$ 526 billion, which is the 18th biggest globally. Thus, the study sought to examine the impact of government expenditure on economic development in Taiwan. Government expenditure can influence the way the country is growing. The study inferences are based on the preceding findings.

LITERATURE REVIEW

Kouassi (2018) researched the effect of government expenditure on economic development in Singapore utilizing time series data from 1970-2018. Secondary data was obtained from Singapore's central bank and the World Bank. The research used a customized endogenous development version model, the Autoregressive distributed lag model. The embraced model was fitted with six variables- capital stock, labor force, capital expenditure, recurrent expenditure,

inflation and trade openness. The research utilized ADF-unit root examination, Phillips-Perron examination and Pairwise Granger causality examination. All the factors utilized were incorporated in the beginning disparity except labor and inflation, and a stable long-term equilibrium association exists between the dependent and independent variables. Empirical results disclosed that two variables, capital and recurrent, are statistically substantial, which are the substantial variables in clarifying the effect of government expenditure on economic development. The Granger causality examination shows a unidirectional causality from government expenditure to economic development in validating the Keynesian concept. The research suggests that the government should increase effort to ensure resources are appropriately taken care of and used in productive areas to speed up economic development.

Shafuda and De (2020) sought to determine how government expenditure contributes to economic development in Taiwan. Much current research on the association between expenditure and economic development reveals conflicting findings and primarily concentrates on aggregated expenditure. Government expenditure has a positive effect on economic development. Government can nourish economic infrastructure to facilitate economic development, improve resource allocation and enhance private sector productivity. Government expenditure can reduce the cost of doing business due to the developments of the infrastructure. In addition, government expenditure can enhance a region's security by deploying security personnel. This will increase business activities in an area, thus spurring economic development. Besides, government expenditure on the education system can increase the skills and competency of the people, thus enhancing production efficiency, translating to significant economic development. Thus, it is concluded that government expenditure significantly impacts economic development. The expenditure on the health sector, security, infrastructure and other amenities can significantly increase business activities, thus stimulating economic development. Hence, government expenditure has a significant impact on the economic development in Taiwan. Based on the findings, it is recommended that government expenditure by the Taiwan government should be increased.

Huang (2021) sought to examine the impact of government expenditure on economic development. The study results showed that government expenditure provides subsidies, free education and healthcare facilities to the people and can impact economic development. So, government expenditure is a powerful fiscal instrument to create an equitable distribution of income and

wealth. The government expenditure increases the individuals' disposable income, which in the long run can increase consumption, thus spurring the overall expenditure. The government should implement policies/systems to ensure the expenditure is efficient. The government should motivate and promote the private sector by improving the infrastructure. The government should only spend when there is a need to stay away from generating inflation in the country. The government needs to intensify efforts to make sure that resources are effectively managed and invested in productive areas and diversification of the economy to improve productive tasks and increase economic development. Government consumption spending should be appropriately organized in all government sectors to stop the crowding-out effect on government investment. Also, there is a need to have a high level of transparency and accountability of government spending in different areas to avoid directing public funds into the personal accounts of government officials and employees.

A study by Coman, Lupu and Nuță (2022) explores the effect of Bulgarian government expenditure on economic development utilizing time series data from 1980-2018. The study uses an Autoregressive Distributed Lag design. To ensure the findings' robustness, the research accounts for structural breaks in the unit root examination and the cointegration evaluation. The crucial findings of the research are that capital expenditure has a favorable and substantial impact on economic development both in the short-term and long-term, whereby recurrent expenditure does not have a substantial impact on economic development both in the short-term and long-term. The research suggests that government needs to improve the share of the capital expenditure, particularly on significant projects that directly affect the resident's welfare. The government must additionally enhance recurrent expenditure spending patterns through proper reallocation of resources in productive tasks that would undoubtedly improve human development in the nation.

According to Uhlig (2018), even though most research has been performed on the association between public expenditure and economic development, it is challenging to mention with assurance whether or not an improvement in public expenditure is good for economic development. This inadequacy of agreement on the findings of the past empirical outcomes makes the research vital as we analyze the available empirical proof from the 1970s until now. The theoretical and empirical literature on the association between government expenditure and economic development has been reviewed thoroughly. Emphasis was anchored on the review of literature that evaluated the influence of government spending on economic development. The

research arranged researches on the effect of public expenditure on economic development according to their outcomes. Three teams arised-positive influence, adverse effect and no effect. These were followed by a re-evaluation of every appropriate research and a test of which result was more common among the present researches on the topic. The literature assessed has revealed that the effect of government spending on economic development is not clear cut. It varies from favorable to unfavorable, with some researchers finding no influence. Even though the effect of government spending on economic development was discovered to be undetermined, the scale tilts in the direction of a favorable influence. The research offers insight into the association between public expenditure and economic development based on an extensive evaluation of past empirical evidence throughout numerous nations from the 1970s.

Reis (2021) conducted a research to explore the effect of government expenditure on economic development in Nepal. Annual series data between 1999/2000 to 2009/2010 is utilized for the research. Economic development was a dependent variable, whereas total capital expenditure, total recurrent expenditure, farming, non-farming, industry, service and inflation are independent variables. The significant role of the research is to analyze the impact of various elements of government expenditure on economic development in the case of Nepal. Data were gathered from an economic survey of Nepal. The evaluation instruments are the regression model between the variables, DW Test and for multicollinearity between the variables, VIF examination is utilized. The empirical outcome reveals a favorable relationship between the dependent variable economic development and the predictors such as farming, non-farming, industry and service fields. Moreover, total current and recurrent expenditure and inflation are adversely associated with economic development. The beta coefficient is favorably substantially for farming, non-farming, industry, and service fields; it indicates that higher investment in farming and non-farming areas will be economic development. Similarly, the higher the investment in the industry and service sector of the nation, the higher the economic development. Most particularly, the value of the D-W value is 2.412, indicating no autocorrelation between the variables.

A study by Lin (2019) intended to determine empirically how government expenditure contributes to economic development in South Korea. Most existing research on the association between government expenditure and economic development indicates contrasting outcomes and primarily focuses on established economies. Thus, the research concentrated on the function and composition of public spending in South Korea from 1990 to 2015, mainly concentrating on

sectoral expenditures: Education, Farming, Defense and Health. The research aimed to determine these government expenditure elements that influence economic development by employing panel data series for South Korea for 25 years to give an overview for policy formulation. The research used the neoclassical augmented Solow development theory as the theoretical framework. The findings revealed that expenditures on health, defense and investment were discovered to be a favorable and statistically substantial impact on economic development in South Korea. On the other hand, expenditure on consumption was discovered to be a negative and statistically substantial effect on economic development. Lastly, education, farming and human capital expenditures were considered trivial. The research recommends that for South Korea, the policy of enhancing government spending on health, defense and investment budget plan to promote economic development will be appropriate; however, fewer funds should be directed towards other governmental programs.

Juniper, Sharpe and Watts (2020) performed a study to analyze if the relative size of government (determined as the share of total expenditure in GNP) may be figured out to Granger cause the rate of economic development or if the rate of economic development may be examined to Granger cause the relative size of government. Firstly, a bivariate error correction model was employed within a Granger causality framework, including unemployment and inflation (independently) as explanatory variables, producing a simple 'trivariate' analysis for every of these variables. The mixed evaluation of bivariate and trivariate tests provides a rich menu of possible causal patterns. Utilizing data on Hungary, Italy and Scotland, the analysis reveals: that government size Granger triggers economic development in all nations of the sample in the short-term and the long-term for Scotland and Italy; economic development Granger triggers rises in the relative size of government in Hungary, and when inflation is included, in Italy. The government needs to intensify efforts to make sure that resources are effectively managed and invested in productive areas and diversification of the economy to improve productive tasks and increase economic development. The government should only spend when there is a need to stay away from generating inflation in the country.

Dahl and Lopez-Claros's (2018) research investigates the long-term effect of government expenditure on economic development in Switzerland from 2000-2018. Employing the autoregressive distributed lag strategy to cointegration, the findings recommend that government investment expenditure as a share of GDP has a favorable but irrelevant effect on the actual

economic development rate in the short-term and long-term. Nevertheless, changes in government consumption expenditure as a share of GDP have a favorable and substantial effect on the real economic development rate in the short term but a trivial impact in the long term. From a policy-oriented perspective, the research suggests that the government should critically assess the elements of its investment expenditure to aid effectively allocate its limited resources towards worthwhile projects.

FINDINGS

The study found that government expenditure has a positive effect on economic development. Government can nourish economic infrastructure to facilitate economic development, improve resource allocation and enhance private sector productivity. Government expenditure provides subsidies, free education and healthcare facilities to the people and can impact economic development. So, government expenditure is a powerful fiscal instrument to create an equitable distribution of income and wealth. The government expenditure increases the individuals' disposable income, which in the long run can increase consumption, thus spurring the overall expenditure. In some cases, the increases in government expenditure can raise taxes. However, efficiency in using the taxes can increase economic development through service delivery.

Government expenditure can reduce the cost of doing business due to the developments of the infrastructure. In addition, government expenditure can enhance a region's security by deploying security personnel. This will increase business activities in an area, thus spurring economic development. Besides, government expenditure on the education system can increase the skills and competency of the people, thus enhancing production efficiency, translating to significant economic development. Thus, it is concluded that government expenditure significantly impacts economic development. The expenditure on the health sector, security, infrastructure and other amenities can significantly increase business activities, thus stimulating economic development. Hence, government expenditure has a significant impact on the economic development in Taiwan.

RECOMMENDATIONS

Based on the findings, it is recommended that government expenditure by the Taiwan government should be increased. The government needs to implement policies/systems to ensure the expenditure is efficient. The government should motivate and promote the private sector by improving the infrastructure. The government should only spend when there is a need to stay away

from generating inflation in the country. The government needs to intensify efforts to make sure that resources are effectively managed and invested in productive areas and diversification of the economy to improve productive tasks and increase economic development. Government consumption spending should be appropriately organized in all government sectors to stop the crowding-out effect on government investment. Also, there is a need to have a high level of transparency and accountability of government spending in different areas to avoid directing public funds into the personal accounts of government officials and employees.

REFERENCES

- Bardhan, P. (2020). Decentralized development. *Journal of Indian Economic*, 8(3),139-156.
- Chen, X. (2017). A tale of two regions in China: Rapid economic development and slow industrial upgrading in the Pearl River and the Yangtze River Deltas. *International Journal of Comparative Sociology*, 48(3), 167-182.
- Chu, E. (2017). *Taiwan's Recent Economy and Business Environment. In Financial Markets and Foreign Direct Investment in Greater China* (pp. 291-294). Routledge.
- Coman, A. C., Lupu, D., & Nuță, F. M. (2022). The impact of public education spending on economic development in Central and Eastern Europe. An ARDL approach with structural break. *Journal of Economic Research* 5(2), 1-18.
- Conrad, H. (2018). Continuity and change in Asian employment systems: A comparison of Japan, South Korea, and Taiwan. The Oxford handbook of employment relations: Comparative employment systems. *Journal of Economics*, 6(2), 17-31
- Dahl, A. L., & Lopez-Claros, A. (2018). The impact of information and communication technologies on the economic competitiveness and social development of Taiwan. *International Journal of Finance and Economics*, 4(1), 11-19
- Hsiao, F. S., & Hsiao, M. C. W. (2019). Some development indicators of Taiwan: A comparative study. *Journal of Economic Development*, 8(1), 45-58.
- Hsiao, F. S., & Hsiao, M. C. W. (2020). Catching Up and Convergence: Long-run Development in East Asia. *Review of Development Economics*, 8(2), 223-236.
- Huang, C. J. (2021). Government expenditures in China and Taiwan: do they follow wagner's law? *Journal of economic development*, 31(2), 139-147
- Huang, C. Y., Hsu, C. C., Chiou, M. L., & Chen, C. I. (2020). The main factors affecting Taiwan's economic development rate via dynamic grey relational analysis. *Plos one*, 15(10), e0240065.
- Huh, H. S., & Park, C. Y. (2018). Asia-Pacific regional integration index: Construction, interpretation, and comparison. *Journal of Asian Economics*, 5(4), 22-38.
- Juniper, J., Sharpe, T. P., & Watts, M. J. (2020). Modern monetary theory: contributions and critics. *Journal of Post Keynesian Economics*, 37(2), 281-307.

- Kouassi, K. B. (2018). *Public spending and economic development in developing countries: a synthesis. Journal of Asian Economics*, 7(3), 17-26
- Kuo, Y. Y., & Cheng, M. H. (2018). Budgeting and financial management of public infrastructure: The experience of Taiwan. *Journal of Finance and Accounting* 3(2),18-32
- Lin, S. A. (2019). Government spending and economic development. *Journal of Applied Economics*, 26(1), 83-94.
- McCahery, J. A., & Vermeulen, E. P. (2019). *Corporate governance of non-listed companies*. Oxford University Press.
- Oztemel, E., & Gursev, S. (2020). Literature review of Industry 4.0 and related technologies. *Journal of Intelligent Manufacturing*, 31(1), 127-138.
- Reis, R. (2021). Targeted transfers and the fiscal response to the great recession. *Journal of Monetary Economics*, 5(9), 50-64.
- Rondinelli, D. A. (2020). Export processing zones and economic development in Asia: A review and reassessment of a means of promoting development and jobs. *American Journal of Economics and Sociology*, 46(1), 89-96.
- Shafuda, C. P., & De, U. K. (2020). Government expenditure on human capital and development in Namibia: a time series analysis. *Journal of Economic Structures*, 9(1), 1-14.