

# Policy Measures and Monetary Policy on the Economic Growth of Taiwan in Post Covid-19

Peichun Feng<sup>1</sup>,

<sup>1</sup>(Department of Administrative Management, Central Police University, Taiwan R.O.C)

---

**Abstract :** *The monetary policy and related measures of Taiwan are successful in overcoming the adverse impacts of pandemic on its economy. Taiwan has managed the spread of COVID-19 far better than most. Except for a few short weeks of soft lockdown in March in 2021, life in Taiwan has been normal. Taiwan's ability to fight COVID-19 illustrates its excellent public health infrastructure and health policy expertise, supported by extensive data and digital technology and monetary policy measures to stimulate the growth of the economy. It has generated interest to understand the behaviour of various indicators of economy in the era of uncertainty of pandemic. Also, it is of significant importance to develop a model of prediction of specific indicator of the economy. The research on the study of economy policy of a country is always significant for academia and policy makers. This research work was conducted by analysing the scenario of the economy of Taiwan in PreCovid, During Covid and Post Covid era. The result shows that, the economy of Taiwan is on the path of revival after Covid-19 pandemic due to the policy measures and monetary policy of Taiwan*

**Keywords** – COVID-19; Monetary Policy, Policy Measures.

---

## I. INTRODUCTION

The world has been witnessing the adverse impacts of pandemic due to Covid 19 since the beginning of 2020. The economic impacts are uneven and it is varying from country to country with the size and compositions of various economies. With the onset of pandemic, Taiwan quickly mobilized its resources in scientific way with standard protocols against Covid-19. It started with specific case identification, containment, and resource allocation to protect the public health. Taiwan also leveraged its national health insurance database and integrated it with its immigration and customs database to begin the creation of big data for analytics. It generated real-time alerts during a clinical visit based on travel history and clinical symptoms to aid case identification. The restrictions on businesses or implementation of Covid 19 response policies impacted the economic activities of various countries. Closure of departmental stores, theatres, restaurants and entertainment spaces and forced shorten business hours resulted in decreased economic activities. Cancellation of social events, sport competitions have further aggravated the adverse situations. These structural changes of consumption pattern and trend caused considerable economic loss in the service industries, such as tourism, 2 transportation, hotels, retails, restaurants and catering. Due to uncertainty of virus outbreak and increased demands of medical services, the financial business and investment also affected adversely. It was the outcome of disruptions in the Supply Chain. To mitigate the effects of COVID-19 and revitalize industries, the government of Taiwan initiated countermeasures in financial support and resource allocation. Taiwan government, medical institutes, laboratorial units, private sectors, and citizens work together and devote effort to against unprecedented trend of COVID-19 pandemic. Aiming at alleviating the impact of the COVID-19 pandemic, the Taiwan government introduced several supportive tax measures covering a wide range of different aspects. In latest data , Taiwan GDP beats estimates as exports outweigh Covid-19 impact. Taiwan's economy grew in both 2020 and 2021. This continued, and even outpaced, the growth seen in preceding years. The economy is also projected to grow in 2022. This is in contrast to the world's real GDP declined by 3.4% in 2020, with the G20 countries, members of the euro area and comparable OECD countries had negative growth ranging from -1% to -11%. The socio-economic impacts of Covid 19 pandemic needs to be assessed and

analysed to understand the implicit and explicit adversities on economic growth of a nation. The revival of economy and its predictions for the future always generated huge interest for study and motivation to explore its various aspects.

## **II. RESEARCH BACKGROUND**

Taiwan is representing an economic success. Since 1992, Taiwan's GDP growth has averaged 4.5 percent. This raised real per capita income from \$9,116 in 1992 to \$19,762 in 2012, with the result that today Taiwan is the 28th wealthiest country globally, and 6th richest country in Asia. And along the way Taiwan has transformed itself from a dictatorship into a vibrant democracy. The strength of economy of Taiwan is represented by robust external financial position, support for R&D through public expenditure, consensus on democratic achievements, 4th largest electronics producer in the world and diversified FDI portfolio in Asia.

The economic engine has suffered a big blow in economic and financial performance in all the regions. South Asian countries and ASEAN nations are still trying to cope with the challenges posed by the pandemic (Khan, Naqvi et al, 2021). Furthermore, the lockdown strategy resulted in a significant drop in domestic consumption and investment, as well as a drop in business and vacation travel, supply-side production and trade disruptions, and demand-side shocks impacting trade and production linkages. It has disrupted the Supply Chain of businesses. The world was unprepared for the pandemic due to Covid-19. Most of the countries were unable to foresee the consequential impact of the pandemic at first. That resulted in underestimated economic implications. Initially, the IMF quantified that the effect would be around 0.1 percentage point (ppt.) off their 3.3% 2020 growth estimate for the global economy. However, after 1 month, the IMF announced deep cuts in its growth estimates for 2020. The Asian Development Bank (ADB) decreased its estimate for ASEAN by 3.7 ppts to 1.0%, and for Developing Asia by 3.0 ppts to 2.2% (Statista 2020; Worldometers.info 2021; WTTC 2020). The confidence lost by the restriction triggered by Covid-19 around the world claimed its toll in South Asia as well in the all economic and financial sectors. Closure of businesses particularly affected the supply chain at all levels of businesses, travel and tourism, and the small and medium businesses. The lockdowns raised the possibilities of debt defaults and ultimately the loss of confidence by investors in the financial markets and the foreign direct investment. To overcome the adverse impacts of Covid 19 pandemics, the Taiwan government has taken several measures. These measures could be summaries under following categories

- (1) Tax measures – Direct and Indirect (e.g. payment deferrals, rate reductions...)
- (2) Employment-related measures (e.g. state compensation schemes, training...)
- (3) Labour Market Support- Ministry of Labour recently has reviewed and expanded existing measures, and added more new labour market measures.
- (4) Working hours lower
- (5) Subsidy based training program
- (6) Employment plan
- (7) Immediate work plan
- (8) Unemployment benefits
- (9) Tuition subsidy for unemployed children
- (10) Subsidy for working environment improvement
- (11) Worker life balance
- (12) Defer labour insurance premium and pension payment

- (13) Economic stimulus measures
- (14) Policy Lending Package.
- (15) Loan Extension
- (16) Credit card payment deferral
- (17) The measures of reducing interest rate from public banks

Above measures are taken by almost all countries across the world, however, Taiwan has leveraged its monetary policy with above measures to start rebounding with adverse 5 impacts of Covid -19 pandemic. Other countries are still struggling to overcome the adverse impacts of pandemic on its economy. Taiwan's success story may open up opportunities for the country to assume a leading role as a facilitator in the reallocation of the global supply chain and the creation of a new worldwide health coalition that includes Taiwan, unlike its lonely efforts 17 years ago when SARS hit the Southeast Asian and Pacific regions (Chun-Chien Kuo, 2021). Despite economic shrinkage, the impact of COVID-19 on Taiwan's economy is restrained compared to other countries. Singapore (-2.2%), European Union (-2.7%), USA (-4.8%), China (-6.8%) and Hong Kong (-8.9%) have reported a more significant drop in the first quarter of 2020. Taiwan has long maintained an explicit policy of attracting inward foreign direct investment (IFDI) as part of its growth strategy, although inflows have been subject to various restrictions. The primary objective of Taiwan's stance toward FDI was initially to attract export-oriented investment based upon the competitiveness of its highly educated and productive labor force. More recently, this objective has been modified to focus on attracting FDI into increasingly technology-intensive areas and to encourage or promote domestic technological spill overs.

### **III. LITERATURE REVIEW**

A preliminary literature review has been done to know different aspects representing growth of economy on various factors as well as to understand the strength and weaknesses on the economy of Taiwan. Some research literature are also consulted to get insights on the models to be used for forecasting the state of the economy. These reviews are summarised as follow:

(1) In the article by En-Ai Liao (2011) empirical data are used to analyse the impact of monetary policy in a dynamic stochastic general equilibrium model. According to the monetary policy decisions of the Central Bank of China (Taiwan), maintaining price, 6 financial stability and fostering economic growth are the ultimate goals of monetary policy during the empirical period.

(2) According to Min-Hua CHIANG (2020) , Taiwan's economy expanded moderately by 2.71% in 2019 despite the ongoing US–China trade war. The growing inward investment made by Taiwanese firms with overseas business operation had underpinned Taiwan's economy despite falling exports. While mounting investment inflows to Taiwan would continue to buttress the economy, the rapid spread of coronavirus could threaten its growth prospects in 2020. In the long run, Taiwan's lack of free trade agreements may further constrain its external trade development. Taiwan's rapidly ageing population, one of key demographic trends, presents another challenge to its long-term economic prosperity.

(3) Sheng-ju-Chan (2020) in the study concluded that, Taiwan, as an emerging economy, has systematically upgraded its knowledge production and international academic collaboration during recent decades. Within this broader context, this research aims mainly to investigate the contemporary development of knowledge production and internationalisation of research in Taiwan. Particular attention is directed to the concrete policies and mechanisms, current scenarios, and emerging issues and challenges

(4) On budgetary response to pandemic, it is concluded by Wei-Jie Liao, Nai-Ling Kuo, Shih-Hsien Chuang(2020) that the 2008–09 special budgets focused only on economic stimulus, whereas the 2020 special budgets covered COVID-19 treatments, bailouts and economic stimulus. In 2020, the Taiwanese government devised targeted bailout plans for industries and individuals most affected by the pandemic and created the Triple Stimulus Vouchers to boost the economy. Since the special budgets were largely funded through borrowing, the authors pointed out concerns for fiscal sustainability and intergenerational equity. It is recommended that 7 when facing the COVID-19 pandemic and possible economic downturns, the government

may encounter reduced revenues and increased spending and may need to think about how to cut back (e.g. making a one-time zero-based budget to cut unnecessary spending or including citizen participation in the process of making budget cuts).

(5) In one study of IMF (2021) it has been concluded that the pandemic fades in the second half of 2020 and that policy actions taken around the world are effective in preventing widespread firm bankruptcies, extended job losses, and system-wide financial strains, we project global growth in 2021 to rebound to 5.8 percent. This recovery in 2021 is only partial as the level of economic activity is projected to remain below the level we had projected for 2021, before the virus hit. The cumulative loss to global GDP over 2020 and 2021 from the pandemic crisis could be around 9 trillion dollars, greater than the economies of Japan and Germany, combined.

(6) In the study by Rahmiye Figen Ceylan , Burhan Ozkan, Esra Mulazimogullari(2020), it has been concluded that economic impact is bi-directional for COVID-19. It has both supply and demand effects. With regards to consumption, we have been facing changing consumer attitudes and marketing channels. At the beginning of the COVID-19 process, rising consumption demand has been encountered attached to stockpiling. But, both the demand dynamics and consumption and purchasing attitudes have changed. Web based online shopping tools have long been used all over the world. However, due to the quarantine enforcements and voluntary social distancing, there is a tendency to leave physical retail channels and shift to online shopping became visible. Therefore, much of the consumption started to take place online and mostly restricted to consumables. While demand for necessities grows, aggregate demand has been falling. This rising online retailing tendency may induce growth in delivery 8 sectors. But it also means unemployment in medium and large-scale retail outlets. Accordingly, the excess labour supply of retailing is a matter of fact to be considered.

(7) In a study by Kelly Barton Olds (2017) it is inferred that Taiwan's success was primarily due to the glut of money that flowed into the Japanese Empire during World War One. Taiwanese had suffered from limited access to credit, but, during the war, the Japanese-controlled Bank of Taiwan had to find an outlet for the huge inflow of funds and greatly expanded lending to native Taiwanese. This unscripted experiment was a success, and continued access to formal capital markets allowed Taiwanese agriculture to takeoff.

(8) O'Higgins (2001) found that a country's Unemployment Rate is related to its overall economy, and the variables of the overall economy are National Income, Exchange rate, Economic growth rate, CPI, etc. Naceur and Goaid (2008) studied the relationship between interest margin and profit of a bank, showing a positive relationship between inflation rate and interest margin.

(9) In the study Sung Yu-Ch and Hung-Pin Lin (2018) it was inferred that there exists Granger causality and cointegrated relationships among international tourist arrivals (ITA), foreign exchange income (FEI), foreign direct investment (FDI), and economic growth (GDP) using Taiwan's tourism data from 1976 to 2016. The cointegrated results confirm the existence of long-run relationships among the variables, and the Granger causality results show that there is a bi-directional causality between GDP and ITA. In addition, there is a unidirectional causality running from one to another in each pair of these variables, while there is no causality between ITA and FDI. Based on such causality evidence, policy implications reveal that to promote GDP, paying attention to FDI to expand ITA is a feasible policy to achieve economic growth.

(10) One research finding by Ayhan and Nildag Basak C (2018) on stock market development and economic growth it was found that there is a long-run relationship 9 between stock market index and GDP on country-group basis. The test results show that there are bi-directional causality relationships on the basis of, Asian, East European and Latin country groups.

#### **IV. RESEARCH GAP**

The relationship between financial development and economic growth is one of the core issues within the macroeconomic field. For a long time, several scholars have conducted deep and systematic theory research studies on this issue. Keynes (1936) proposed the thought of monetary non-neutrality, which states that currency supply influences both price and output through the interest rate and investment variables. Based on wage stickiness and sticky price, the New-Keynes school's viewpoint of monetary nonneutrality in the short run, but neutrality in the long run, offers a micro-theory explanation for Keynes's macroeconomic theory. Compared with the Keynes's statement that monetary has a non-neutrality nature, the Chicago school of economics argues that monetary policy is invalid, and so the two viewpoints are in intense contrast. Additionally, Freeman and Huffman (1991) and Freeman and Kydland (2000) pointed out that the positive correlation meant there was a

monetary-multiplier effect of deposits, presenting the causality relationship in which money led output. And, Oi et al. (2004) used the structural VAR model to comprehensively investigate long-run monetary neutrality in Japan from the Period 1868-1912. The empirical results indicate little evidence against the long-run neutrality of money with respect to real GNP. Despite the great deal of academic research and discussion, the behaviors of various indicators of economic growth in nonlinear approaches are little studied. The relationship between health expenditure and economic growth is evaluated by many different studies in the literature. For example, Wang and Lee (2018) conducted a study to analyze this relationship in 24 different countries. By using regression analysis, it is determined that health care expenditure has a significant contribution to the economic growth. Erçelik (2018) and Atılğan et. al. (2017) identified that health care expenditure has a positive influence on economic development with the help of ARDL methodology. After the onset of epidemic, large numbers of literatures are available on the study of Covid 19 on Economy of the country. However, the comparative analysis on the role of monetary policy of a country in pre covid and post Covid 19 scenario are little studied precisely. Further, trends of various indicators of economic growth are also little studies. Taiwan model to address the adverse impacts of Covid 19 is applauded worldwide. Various policy measures and stimulus to boost the economy are taken by the government of various countries as well as Taiwan. Some studies are available on the importance of monetary easing policies in boosting money supply in the economy during the times of pandemic. However, the specific impacts of monetary easing policies on curtailing the pandemic effects are limited. The present research study aims to critically assess the short and long terms effects of monetary easing policies on the money supply in the economy especially during the times of pandemic with consideration on the recent scenario of Covid-19 with its comparison from Pre- Covid 19 era.

## V. CONCLUSION

This research work is intended to contribute significantly in understanding a better and effective response system from government and society in case of disaster or pandemics to minimize its adverse impacts. The economy at global level is all set to revive now, but the revival is witnessing uneven growth across countries. Disparities are again in major economies and lagging developing economies. Global growth is expected to accelerate to 5.6% in 2022. Its major contributions are from USA and China. There are the countries which continue to struggling with impacts of COVID-19 for its rebound. Regionally, the recovery is expected to be strongest in East Asia and the Pacific. India and China may be leading with major share in that revival. This research work contributes for policy makers also to understand the impacts of various measures to overcome the impacts of Covid 19

## REFERENCES

- [1] Asia Pacific Report of PwC (2020): Time to act Taiwan. available at <https://www.pwc.com/gx/en/asia-pacific/asia-pacific-time-taiwan.pdf> (accessed 7 July 2021)
- [2] Brik, A. B., & Pal, L. A. (Eds.). (2021). *The Future of Policy Sciences*. Cheltenham: Edward Elgar
- [3] Chiang Min-Hua (2020) Taiwan's Economy Amid Covid 19 Challenges, Research Report of National University of Singapore
- [4] Chun-Chien Kuo (2020): COVID-19 in Taiwan: Economic Impacts and Lessons Learned *Asian Economic Papers* 20(1):1-47 DOI:10.1162/asep\_a\_00805
- [5] C. Jason Wang, Chun Y. Ng, Robert H. Brook(2020): Response to COVID-19 in Taiwan - Big Data Analytics, New Technology, and Proactive Testing
- [6] En-Ei Lio(2008) The effects of monetary policy: A DSGE model analysis of Taiwan, April 2008. *Applied Economics* 40(8):1043-1051
- [7] Erçelik, G. (2018). The Relationship between Health Expenditure and Economic Growth in Turkey from 1980 to 2015. *Journal of Politics*, 1(1), 1-8
- [8] Executive Yuan (2021). COVID relief and stimulus for industry. available at: <https://english.ey.gov.tw/News3/9E5540D592A5FEC0D09d1d995-fe7f-45b8-89ee6a42d279a280>.
- [9] Gopinath, G. (2020), "The Great lockdown: worst economic downturn since the Great depression", available at: <https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturnsince-the-great-depression/> (accessed 7 July 2020)

- [10] Hung-Hao Chang and Jiun-Hao Wang(2021) The economic impact of the COVID-19 pandemic on the Taiwanese food industry: Empirical evidence using business transaction data, *Journal of Agricultural Economics*, DOI: 10.1111/1477-9552.12471 23
- [11] Kelly Barton Olds (2017) Colonial Taiwan's Financial Revolution, *Asian Economic History Review* (2017)
- [12] Min- Huan Chan (2020), Taiwan's Economy in 2019: Reaping Benefits from the US–China Trade War, *East Asian Policy* Vol. 12, No. 01, pp. 72-82 (2020)
- [13] Naceur S. & Goaid M.(2008) The determinants of commercial bank interest margin and profitability: evidence from Tunisia. *Frontiers in Finance and Economics* 2008; 5(1): 106–130.
- [14] O'Higgins N.(2001): Youth Unemployment and Employment Policy: A Globe Perspective. Geneva: ILO. 2001
- [15] Po-Chun Huang and Tzu-TingYangb (2021) The Welfare Effects of Extending Unemployment Benefits: Evidence from Re-employment and Unemployment Transfers, *Journal of Public Economics*, Volume 202, October 2021, 104500
- [16] Rahmiye Figen Ceylan , Burhan Ozkan, Esra Mulazimogullari(2020), Historical evidence for economic effects of COVID-19 *The European Journal of Health Economics* (2020) 21:817–823 <https://doi.org/10.1007/s10198-020-01206-8>
- [17] Report of ADB (2020): The Economic Impact of the COVID-19 Outbreak on Developing Asia
- [18] Sheng-ju-Chan (2020), Knowledge production and internationalisation of research in Taiwan: a new watershed? *Journal of Higher Education Policy and Management* , Vol 42 (2020)
- [19] Sung Yu-Ch and Hung-Pin Lin (2018), Causality Relationship between Tourism, Foreign Direct Investment and Economic Growth in Taiwan, *Asian Journal of Economic modelling* , Vol 6 No3
- [20] Wang, K. M., Lee, Y. M., Lin, C. L., & Tsai, Y. C. (2018). The effects of health shocks on life insurance consumption, economic growth, and health expenditure: A dynamic time and space analysis. *Sustainable cities and society*, 37, 34-56.
- [21] Wei-Jie Liao, Nai-Ling Kuo, Shih-Hsien Chuang(2020) Taiwan's budgetary responses to COVID-19: the use of special budgets, *Journal of Public Budgeting, Accounting & Financial Management*, ISSN: 1096-3367 24
- [22] Ying Li, Yunpeng Sun, and Mengya Chen2 (2021)-An Evaluation of the Impact of Monetary Easing Policies in Times of a Pandemic *Front Public Health*. 2020; 8: 627001.
- [23] Yu-Ying Kuo(2020) Fiscal policy responses for sustainable post-COVID-19 recovery: Taiwan's experience, *Fulbright Review of Economics and Policy* Vol. 1 No. 2, 2021 pp. 158-169 Emerald Publishing Limited