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Navigating the Pandemic: An Analysis of the Monetary Policy Response in Singapore

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Abstract: The COVID-19 pandemic substantially impacted the worldwide economy, and Singapore was not immune to its effects. In response to the outbreak, to sustain the economy and ensure price stability, the Monetary Authority of Singapore (MAS) implemented various monetary policy measures. This paper analyzes a series of timely and effective measures taken by the Monetary Authority of Singapore, including specific actions and their impacts, by combining qualitative and quantitative methods with specific economic activity data over the years. This paper demonstrates the effectiveness of most policies adopted by the Monetary Authority of Singapore, including an evaluation of their impact and potential future implications, as well as their contribution to monetary policy and its response to crises.

Keywords: monetary policy, Singapore, crisis management, COVID-19, central bank

1. Introduction

In late 2019, an unforeseen COVID-19 pandemic swept across the globe. The pandemic has not only significantly impacted daily life, but also disrupted global economic activities. The majority of factories worldwide have been forced to shut down, leading to near-complete disruption of supply chains and a sharp increase in unemployment rates. Many countries are struggling to address the current economic shutdown, severe blows, or even significant setbacks to their economies. The economic effects of the pandemic differed between rich and poor countries: COVID-19 deaths exerted a somewhat greater drag on GDP in advanced economies, whereas lockdown restrictions were more injurious to economic activity in emerging and developing economies [1]. In the global context, Singapore's economic recovery is remarkable, despite some shocks in various industries. The Monetary Authority of Singapore (MAS)'s timely and effective monetary policies played a crucial role in this process. The Monetary Authority of Singapore (MAS) deviates from the traditional strategy used by the majority of central banks by utilizing the nominal exchange rate as its intermediate aim for monetary policy rather than concentrating largely on interest rates. For a small yet open economy like Singapore, the post-pandemic monetary policy measures primarily encompass interest rate reductions, exchange rate adjustments, and liquidity support initiatives. This paper employs both qualitative and quantitative analyses, integrating data on specific economic activities before and after the epidemic in Singapore and a macro-level evaluation to conduct an in-depth examination of Singapore's monetary policy during the pandemic. This paper delves deeply into a series of specific policy measures implemented by the Singaporean government in response to the

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pandemic's impact on the economy during the post-pandemic era, as well as the reasons for their efficacy, providing implications for future monetary policy decision-making, helping identify areas for improvement in future crisis management strategies.

2. Singapore's Monetary Policy Framework

The Monetary Authority of Singapore (MAS), which serves as Singapore's central bank, is in charge of all central banking duties, including formulating and implementing monetary policy. The primary focus of Singapore's monetary policy is the control of the trade-weighted exchange rate, with the long-term goal of preserving price stability. This is because, in a small and open economy such as Singapore, where gross exports and imports of goods and services are more than 300 per cent of GDP and almost 40 cents of every dollar spent domestically is on imports, the exchange rate has a much stronger influence on inflation than the interest rates [2]. Given that imports constitute a substantial portion of domestic expenditure, the exchange rate holds greater effectiveness in preserving price stability compared to interest rates. The Monetary Authority of Singapore (MAS), which serves as Singapore's central bank, is in charge of all central banking duties, including the formulation and implementation of monetary policy. The primary focus of Singapore's monetary policy is the control of the trade-weighted exchange rate, with the long-term goal of preserving price stability. The MAS implements its exchange rate policy through direct sales or purchases of the U.S. dollar in the foreign exchange market. Supplementing its foreign exchange intervention operations, money market operations serve to offset short-term fluctuations in banking liquidity. The money market tools available include foreign exchange swaps, interbank lending/borrowing, and sales/purchases or repurchase agreements in government securities [3].

3. The Impact of COVID-19 on Singapore's Economy

3.1. Pre-pandemic Performance of Singapore Economy

Singapore recognized as one of the world's most open economies, is often regarded as a barometer for the overall state of global trade. Prior to the pandemic, Singapore's economy had been performing strongly. Since the 1960s, the Monetary Authority of Singapore (MAS) has assumed the crucial role of overseeing the financial development of the country and has consistently implemented a robust monetary policy. Through its vigilant efforts, MAS has effectively averted economic collapse and ensured the stability of the Singaporean economy. Despite lacking natural resources that its neighbors rely on as major commodities; Singapore boasts one of Southeast Asia's fastest-growing economies. The transformation of the Singapore economy over the past five decades has been impressive, producing rapid economic growth and delivering extraordinary improvements in social welfare. During that period, Singapore has evolved into a developed economy with multiple engines of growth including globally competitive manufacturing clusters, one of the world’s pre-eminent financial and transportation centres, and the location for regional or global headquarters of major corporations [4]. In 2019, Singapore's gross domestic product (GDP) grew by 1.3%, compared to 3.6% in 2018 [5]. The slowdown in growth was due to trade tensions between the U.S. and China and a weakening global economy, which affected Singapore's export-dependent economy. However, the overall economic performance is still considered strong, with growth in both manufacturing and services.

Manufacturing is the primary engine of Singapore's economy, contributing approximately 20% to its GDP. In 2019, the sector experienced a growth rate of 2.3%, with the electronics and precision engineering clusters leading the way. The electronics cluster was bolstered by robust demand for semiconductor chips used in smartphones and other electronic devices, while strong demand from aerospace and biomedical industries drove growth in the precision engineering cluster. The services sector, which constitutes approximately two-thirds of Singapore's economy, registered a growth rate of 1.2% in 2019. The finance and insurance sub-sector emerged as the primary contributor to this growth owing to robust demand for wealth management and insurance services. Additionally, the information and communications sub-sector witnessed an upswing driven by escalating demand for IT and digital services. The construction industry, which contributes approximately 3% to Singapore's economy, experienced a contraction of 3.1% in 2019 due to a deceleration in public-sector construction activity and reduced demand for private-sector construction projects.

Overall, Singapore's economy exhibited robust performance prior to the pandemic, with notable growth in key sectors such as manufacturing and services. However, the country has experienced some vulnerabilities due to U.S.-China trade tensions and the global economic slowdown that have impacted its export-oriented economy. These challenges are expected to be further compounded by the COVID-19 pandemic, which is anticipated to significantly impact Singapore's economy.

3.2. Impact of the Pandemic on Key Sectors of the Economy in Singapore

As the global epidemic continues to decline, Singapore cannot be immune. The trading, tourism, and financial hub of Southeast Asia is currently bracing itself for what is expected to be the most severe recession in its fifty-five-year history. One reason for the economic contraction is the "circuit breaker" measures implemented by Singapore's government in hopes of slowing the spread of COVID-19. These measures encompass the suspension of non-essential services and the closure of the majority of workplaces. The contraction was also caused by the global economic downturn caused by the pandemic, which in turn weakened Singapore's external demand.

The impact of the pandemic on Singapore's economy exhibits a complex nature. Notably, Singapore experienced year-on-year contractions of 0.3%, 13.2%, and 5.8% in real GDP during the first three quarters of 2020. Additionally, total employment witnessed a decrease of 138,400 in the first half of the year. The severity of this downturn surpasses that seen during the Global Financial Crisis. The construction industry, sectors impacted by international travel restrictions, and business services experienced a contraction. In contrast, the financial services sector expanded due to the ability to conduct financial activities remotely through digital technologies, while the electronics and biomedical sectors experienced growth.

Manufacturing is one of Singapore's core industries, but the global pandemic has disrupted supply chains on a global scale, resulting in shortages and subsequent increases in prices. This has greatly affected Singapore businesses, especially those that rely heavily on imports and exports. The decline in consumer demand due to the pandemic also played an important role. Manufacturing, wholesale commerce, transportation, and storage are examples of outward-looking industries that have been negatively impacted by the decline in external demand and supply chain disruptions. Weak global demand and supply chain disruptions have also had an impact on international commerce, which has led to a decline in the amount of air and marine cargo handled at our air and sea ports [6].

Tourism is another important industry for Singapore, but the pandemic has had a disastrous impact on it due to border controls and travel restrictions. Two of the industries that were significantly impacted by the pandemic crisis include (i) lodging and food services and (ii) transportation and storage, according to "The Case of Singapore". International travel restrictions had a negative impact on the tourist and air transportation sectors, which both experienced declines of 29.7% and 25.6%, respectively. As a result, both industries had a far greater degree of decline than the GFC, when the equivalent statistics were 5.5% and 10.6%, respectively [7].

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Table 1: Performance of Major Economic Sectors: year-on-year 3-quarter change [7].

Industry	Pandemic	GFC
Overall GDP	-6.5	-4.1
Manufacturing	5.7	-12.2
Construction	-35.4	27.3
Wholesale & Retail Trade	-5.5	-7.5
Transportation & Storage	-25.6	-10.6
Accommodation & Food Services	-29.7	-5.5
Information & Communications	1.3	8.1
Finance & Insurance	4.7	-6.9
Business Services	-13.1	3.9

As shown in Table 1, the pandemic has had a huge negative impact on most industries in Singapore, even greater than that caused by the global financial crisis, especially construction, transportation and accommodation.

Finally, finance is a foundational industry for Singapore. Although the impact of the epidemic on the industry is small, in the context of the global economic downturn, the financial industry still faces certain challenges.

4. Monetary Policy in Response to the Epidemic

4.1. Exchange Rate Adjustments

By changing exchange rates, the Monetary Authority of Singapore (MAS) carries out monetary policy, allowing the local currency to appreciate or depreciate in value in comparison to the currencies of its main trade partners within an unspecified range.

As shown in Figure 1, In March 2020, the US dollar reached a decade-long peak against the Singaporean dollar at 1.45 SGD. As a crucial benchmark currency for numerous nations, fluctuations in its value can significantly impact trade, investment, and financial flows. The appreciation of this currency renders Singapore's exports less competitive and more expensive in global markets, potentially resulting in reduced external demand for its goods and services that could adversely affect the country's economy.

Figure 1: US Dollar to Singapore Dollar Exchange Rate Chart [8].

In response to this challenge, the Monetary Authority of Singapore (MAS) has implemented various monetary policy measures aimed at managing the exchange rate and safeguarding its competitiveness. For instance, MAS intervenes in the foreign exchange market by conducting buy

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and sell operations on the Singapore dollar to maintain exchange rate stability. The Monetary Authority of Singapore (MAS) implements monetary policy by adjusting exchange rates, enabling the local currency to increase in value or decrease in value relative to the currencies of its primary trading partners within an undefined range. This means the Singapore dollar can move more broadly against a basket of currencies, allowing it to respond more flexibly to changes in the global economy. These calibrated monetary policies have helped stabilize the exchange rate and support Singapore's economic growth, effectively mitigating market volatility and economic uncertainty.

4.2. 4 US Dollar Liquidity Swap Line Facility

The ongoing COVID-19 outbreak has placed a significant strain on global financial markets. To mitigate the pressure, six central banks, including the Federal Reserve, made an announcement on March 15, 2020, regarding the expansion of their standing US Dollar (USD) liquidity swap line arrangements. This measure aimed to alleviate stress in global USD funding markets. The Fed may avoid expensive deleveraging and perhaps improve the welfare of both source and recipient economies by increasing US dollar liquidity in countries where US banks have more asset exposure [9]. The Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank, and the Swiss National Bank were the other five central banks that took part in this project. The Federal Reserve subsequently added the Monetary Authority of Singapore (MAS) to its list of central banks to whom it had previously provided access to its dollar liquidity swap line facility.

In December 2020, the Monetary Authority of Singapore (MAS) made an announcement regarding a US$60 billion swap facility established with the US Federal Reserve. These swap line arrangements play a crucial role in maintaining stable liquidity conditions within the USD funding markets, both domestically in Singapore and globally. The Monetary Authority of Singapore (MAS) intends to utilize the swap facility, which is set to run for a minimum of six months, to provide financial institutions in Singapore with dollar liquidity.

The swaps facility serves as a supplementary tool to the Monetary Authority of Singapore's (MAS) management of the Singapore dollar (SGD) market. In conjunction with its market operations, MAS remains committed to ensuring sufficient SGD liquidity to meet the needs of the banking system. Additionally, eligible banks may utilize the Monetary Authority of Singapore Standing Fund to deposit or borrow SGD funds against designated collateral. By implementing these measures, Singapore aims to bolster the stability of its financial system and reinforce its pivotal role in facilitating credit and fundamental financial services that are vital for the economy.

5. Comparison with Monetary Policy Responses in the United States

The United States and Singapore have implemented similar monetary policy measures such as cutting interest rates and providing liquidity support to financial markets. However, there are differences in the implementation of these measures due to differences in their monetary policy frameworks. Different national circumstances in the US and Singapore have shaped their different policy responses. As a large, globally connected economy, the United States is focused on stabilizing global financial markets and stimulating domestic demand. Singapore's open economy is small and prioritizes maintaining external competitiveness, ensuring financial stability, and supporting key sectors that are essential to its economic resilience.

The US Federal Reserve has adopted several monetary policies to deal with the impact of the pandemic on the economy. These actions related to monetary policy are intended to lower interest rates or increase overall liquidity. One of the policies is the Quantitative Easing (QE) program. The Quantitative Easing (QE) program is a monetary policy strategy employed by central banks, which entails the acquisition of government securities. This approach aims to augment the money supply,

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foster lending activities, and stimulate investment within the economy. The Federal Reserve has also lowered interest rates to near zero (a range of 0% to 0.25%) and indicated that it will keep rates low until the economy has recovered from the pandemic to encourage borrowing and spending. The effects of these policies have been mixed. On one hand, the QE program has helped stabilize financial markets and support economic growth by increasing liquidity in the market. On the other hand, low-interest rates have led to an increase in asset prices and contributed to rising income inequality. In addition, some experts argue that QE has not been effective in stimulating economic growth and that it has contributed to inflation.

The number of repurchase agreements provided and their durations were extended by the Federal Reserve, the Bank of Canada, and the Bank of Japan. Additionally, the Fed unveiled financing initiatives that were intended for particular financial industry areas. By lending against investment grade debt, for example, and by lending to depository institutions against assets acquired from money market mutual funds, it acted to eliminate funding constraints for primary dealers and money market mutual funds, respectively. In order to facilitate the issue of asset-backed securities, it also revived the Term Asset-Backed Securities Loan Facility (TALF), which was first formed in late 2008. Due to the ECB's provision of bridge funding to banks, previous loans' maturity dates were effectively modified [10].

Compared to Singapore, the United States has experienced a comparatively less successful response to the economic impact of the pandemic. According to data from the Federal Reserve Bank of St. Louis, as of April 2022, the unemployment rate in the US was 4.2%, down from a high of 14.8% in April 2020. The GDP growth rate for Q4 2021 was 6.9%. The inflation rate for March 2022 was 7.0%.

6. Conclusion

Having a diversified economic and financial system is crucial for countries to mitigate the impact of external shocks. Additionally, flexible and adaptable monetary policy frameworks and policies that respond to changing economic conditions are indispensable in mitigating the effects of shocks and supporting long-term economic growth. The findings indicate that Singapore's monetary policy during the COVID-19 pandemic was highly effective in stabilizing the economy and maintaining price stability. The swift and decisive actions taken by MAS have helped to mitigate the economic impact of COVID-19 by providing adequate liquidity and support to businesses and individuals, thereby contributing to financial stability and sustained economic growth. In conclusion, this paper significantly contributes to the comprehension of Singapore's monetary policy response in the face of external shocks, notably the COVID-19 pandemic. It offers valuable insights that can inform and guide future policy decisions in similar circumstances. However, there are still some limitations in Singapore's monetary response that require attention. One of the key challenges is the persistent uncertainty and volatility of the global economic environment, which could have significant implications for Singapore's economy going forward. Moreover, given the ample liquidity provided by central banks, there is a potential risk of inflation and asset price bubbles. To effectively tackle these challenges and bolster the effectiveness of Singapore's monetary policy, policymakers could contemplate the implementation of more targeted measures. These policies would help the weaker areas of the economy, such as low-income households and small and medium-sized businesses (SMEs). Policymakers can improve the overall effect of monetary policy on the larger economy by paying particular attention to the demands of certain sectors. Additionally, it is crucial to continuously monitor evolving economic conditions and adjust policies accordinglySubsequent research is expected to concentrate on the enduring impact of the pandemic on Singapore's economy and the efficacy of diverse policy measures.

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