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Vietnam's Economic Story: Navigating the COVID-19 Storm through Government Policies

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Abstract

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Abstract
The COVID-19 pandemic has brought about unprecedented challenges to the whole world and profoundly transformed societies and economies alike. Facing the complicated situation of the pandemic, along with healthcare and disease control policies, governments have implemented timely and drastic economic responses to steer the economy through the crisis.
Multiple studies, both during and post-pandemic, have discussed the effectiveness of policy responses from countries all over the world. However, there seems to be a lack of research into developing nations. Further studies into these countries can prove to be highly beneficial by offering them valuable insights into their pandemic performance and lessons for future crises.
This thesis is a literature review that investigates the impact of government policy responses to COVID-19 in Vietnam. I analyze fiscal and monetary policies implemented by the government of Vietnam, accounting for both their benefits and drawbacks. Overall, economic policy responses implemented during the pandemic have a positive impact on the economy, but they also induce some negative effects. While results refer to the effects of these policies on the overall economy and some sectors, more research into their mechanism, sector-specific impacts, and their unwanted consequences on the economy is necessary for future crisis handling. I also discuss some possible suggestions on how to mitigate the downsides of these policies. Studying Vietnam offers valuable insights into how a developing nation with limited resources dealt with the pandemic and how other similar countries can improve their situation by learning from the experiences of Vietnam.

Keywords COVID-19, Vietnam, fiscal policies, monetary policies, macroeconomics

Contents

1 Introduction and Motivation

The COVID-19 pandemic has left a profound and global impact on economies, societies, and governance systems. The pandemic triggered the "largest global economic crisis in more than a century" (WB, 2023a), taking a heavy toll on human lives and societies. The highly infectious virus has prompted governments around the world to take quick and decisive actions to control the spread of the pandemic and stabilize the economy. Preventative measures such as business closures or mass quarantines were successful in containing the situation. However, these measures not only significantly disrupted production and supply but also shocked the demand side of the economy. The International Monetary Fund (2021a) predicted an economic crisis of equal or even greater magnitude than that of the global financial crisis.

Faced with various economic challenges, governments worldwide have devised timely and decisive actions. These short-term economic decisions are aimed at mitigating the burden for sectors most vulnerable like households or businesses. An unprecedented crisis required "abnormal" responses: governments had to implement these policy tools at unheard-of scales for the economy (WB, 2023a). Examples ranged from direct income support policies, healthcare expenditure support to exchange rate to inflation stabilization or policies that supported firm restructuring. Such responses had had positive effects on the economy. Evidence from multiple reports and studies (Nguyen et al., 2023; Bui et al., 2022; IMF, 2021b) supported the efficiency of short-term fiscal and monetary policies in aiding the economy. This will be further analyzed in later parts.

On the other hand, these emergency responses also generated new pressing challenges for the economy such as increased private and debt levels (WB, 2023a). These obstacles were especially aggravated for emerging economies. World Bank (2023) reported worsening inequality across countries as an impact of the pandemic. Unemployment and income loss levels were higher in developing nations, while businesses and enterprises also suffered more severely in countries with limited resources (WB, 2023a). The size and scope of policy responses were also highly variable among countries. Measures capable of stabilizing the economy like direct income support were implemented at significantly lower rates in low-income countries than in high-income ones (WB, 2023a). The inability to effectively mobilize resources hindered the implementation of short-term government responses in low-income countries. For example, fiscal responses to the crisis varied substantially across countries, with more developed nations committing higher percentages of their gross domestic product

(GDP) to fiscal support than those less developed (WB, 2023a). In the end, these large-scale responses induced unwanted consequences on the economy that required more studies to better understand how to negate them in the future.

Therefore, there exists a need for further research into the performance of emerging economies during the pandemic. The developing country of interest in this thesis is Vietnam, a South East Asian country. Vietnam was regarded as an example of how a developing country handled the pandemic relatively effectively (Nguyen et al., 2023; IMF, 2021b). However, successes in mitigating the worst impacts of the pandemic meant implementing short-term responses that came with unwanted and serious economic side effects. Vietnam is similar to other developing nations in this regard. This highlights the importance of further studying the case of Vietnam to understand how policies impacted Vietnam's economy and what to learn from the country's experiences.

This thesis is then a literature review that examines the impacts of different government policies on the economy of Vietnam during the COVID-19 pandemic and discusses possible improvements to these policies. It aims to answer these research questions: "What were the fiscal and monetary policies that the Vietnamese government implemented and what were their effects on the economy?" The paper is organized as follows. Section 2 briefly goes over Vietnam as an economy pre-pandemic, offering insights into the country's strong and weak points. Section 3 provides an overview of the impact of the pandemic on the country. Section 4 discusses how government responses affected the economy by surveying different reports and academic articles. Section 5 offers some discussion and possible ways to mitigate the negative effects of pandemic measures. Section 6 concludes.

2 Vietnam pre-pandemic

In this section, I will briefly introduce Vietnam as an economy before the pandemic hit. Insights into what Vietnam did well and what it lacked economically served as an important step towards understanding the overall impact of the pandemic as well as that of the policies later implemented on the economy.

Vietnam is a South East Asian country. Ravaged by numerous wars throughout its history, civilization in Vietnam had relied heavily on agriculture, making economic breakthroughs difficult to occur and the whole economy susceptible to uncontrollable elements like the environment. However, ever since a political and economic renewal campaign called "Doi Moi" (Reformation) in 1986, Vietnam's economy has been on an incredible rise. Through "Doi Moi", the government aimed to create a free market with high incentives for private businesses and foreign investments. Vietnam has then successfully transformed from one of the poorest countries in the world into one of the fastest growing economies of the 21st century. The country has enjoyed an impressive GDP growth rate of at least 5 percent from 2000-2019 (figure 2.1) while also increasing its GDP per capita over 3 times to almost US$3,700, proving itself as one of the most promising emerging economies in the world. Poverty rate (US$3.65/day, 2017 PPP) in Vietnam has also been on a remarkable decrease, from 14 in 2010 to 5 in 2018 (WB, 2023c). The structural transformation of the economy from agriculture to a more modern economy has helped Vietnam achieve these successes in boosting the economy and citizens' living standards. Additionally, for Vietnam, the large population (over 100 million) means not only a large and young workforce but also a very sizeable market for consumption. These traits have served as undeniable attractions for international investments and allowed the country to have a significant competitive edge in the global economy, fostering more job creation for its citizens.

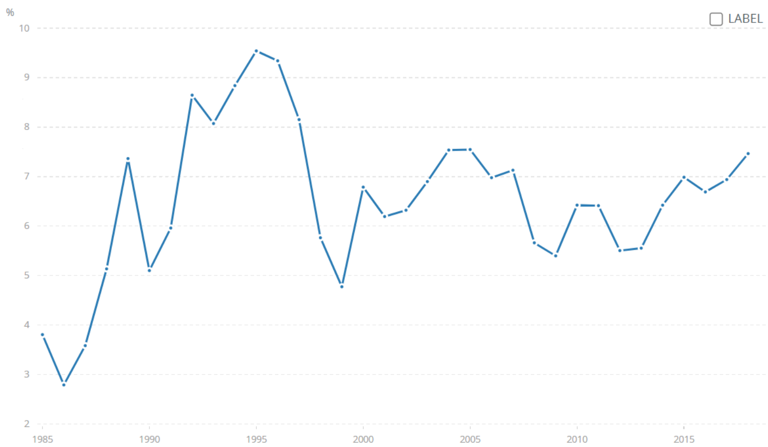

Figure 2.1. GDP growth rate of Vietnam from 2000-2019 (World Bank, 2023)

However, the last 40 years or so of impressive economic development also came with a multitude of pressing challenges for Vietnam. Firstly, public investment has slowed in recent years due to limited capacity (IMF, 2021b). Despite the government's numerous attempts over the years, problems like lengthy procedures or increased prices of building materials (VNN, 2023) made the disbursement of public investment rather troublesome and less effective than expected. This, in turn, can result in insufficient funding for infrastructure in sectors like energy and transportation or investments in education or welfare benefits. Comparatively, tax revenues are also under average (IMF, 2021b), implying issues of compliance and tax evasion. The banking system also requires more attention despite substantial improvements. The number of banks meeting international capital standards remains low, while household debts are above average for emerging economies (IMF, 2021b). Additionally, Vietnam, a country whose large proportions of the population and economic assets are situated along the coastline, is increasingly susceptible to climate change. Multiple indices on vulnerability and readiness pointed to Vietnam's growing exposure to severe consequences of climate change and rising sea levels (IMF, 2021b). Lastly, long-standing issues like corruption or economic inequality between rural and urban areas, if left unattended, can pose a serious threat to the sustainability and efficiency of the whole economy.

In conclusion, Vietnam as an economy has shown spectacular growth in the last few decades. From a country heavily reliant on agriculture, Vietnam has made major breakthroughs to become one of the fastest growing economies of the 21st century, which adopts global trends efficiently and welcomes foreign entities with hospitable policies. However, there are also major problems that the country has to repeatedly address like disbursement of public investment and tax returns, while climate change and compliance issues are constantly pressing. As its economy progressed into 2020, Vietnam was faced with one of, if not, the biggest challenges since its "Reformation" in 1986 - the COVID-19 pandemic. The pandemic presented the country with not only a serious health crisis but also unprecedented economic obstacles. A never-before crisis called for drastic measures, and Vietnam had implemented swift and decisive policies to combat the pandemic. Yet, these measures brought further challenges for Vietnam's economy, albeit their short-term successes. Understanding Vietnam's economic upsides and downsides, the upcoming sections will further discuss the impact of the COVID-19 pandemic on the country, its countermeasures, and their effects on the economy.

3 The COVID-19 Pandemic and its impacts

The previous section has established the state of Vietnam's economy pre-pandemic. With the economy's strong and weak points in mind, I will continue to cover the different impacts that COVID-19 had on Vietnam in this section. This serves as an important step towards understanding the levels of impact the pandemic had on economic sectors in which Vietnam performed well and how it might have aggravated the weak sides of the economy. Subsection 3.1 will provide an overview of how the pandemic developed in Vietnam; the second subsection will take an in-depth look at its economic impacts on the country.

3.1 COVID-19 Pandemic Developments in Vietnam

Vietnam was one of the first countries in the world to adopt preventative measures against a novel virus reported in Wuhan, China. This is partly because Vietnam shares over 1200 km of border with the country where the pandemic originated, and also their experience with infectious diseases from the SARS outbreak of 2003. By the end of 2021, Vietnam had been hit with 4 main waves of COVID-19.

In the first year of the pandemic (2020), Vietnam kept the pandemic particularly well under control, utilizing early preventative methods and countrywide adoption of mass quarantine and social distancing. Vietnam had then experienced two surges of COVID-19 cases in 2020, with comparatively low rates of infection for the country with 1367 cases and 35 deaths reported as of December 7, 2020 (IMF, 2021b). A relatively calm period had enabled some levels of economic activities to continue, although heavily constrained by preventative measures. Coming into 2021, Vietnam had built itself a rather solid strategy for combating the pandemic, utilizing local quarantines and mass vaccination whenever possible. However, as the third and fourth wave of infections hit the country, the number of reported cases still rose rapidly. This was partly due to new strains of the virus and the society's somewhat lax attitude after a successful year of containing the pandemic. Going towards the end of 2021, Vietnam had reported a total of almost 2 million cases. Prolonged periods of high infection rates have induced more preventative measures that might slow down the economy further and create more unwanted side effects.

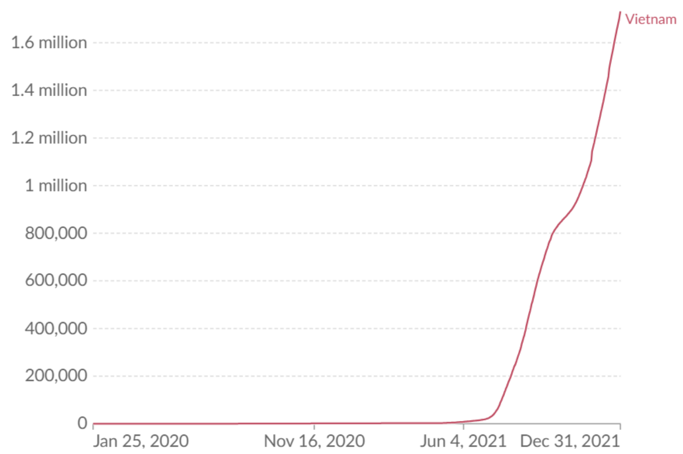

Figure 3.1. Cumulative confirmed COVID-19 cases of Vietnam (Our World in Data, 2023)

By the end of 2021, the pandemic was brought under control again. Swift medical responses like quarantines, extensive tracking, and source control together with a mass vaccination program (Nguyen et al., 2023) had contributed to slowing down infection rates and creating community immunity. Once again, the Vietnamese people had banded together under the slogan "Chong dich nhu Chong giac", roughly translated into "fighting the pandemic like fighting the enemy". People had largely followed healthcare guidelines like washing hands thoroughly, wearing masks, or social distancing. Numerous community pandemic-fighting teams were founded by citizens in an attempt to alleviate the healthcare system by identifying early cases of the virus and spreading information on how to prevent infection.

Vietnamese people also came up with creative methods of combating the negative influences of the pandemic: writing popular songs to spread awareness, setting up "rice banks" to help those in need, launching contact tracing apps and many others. The unity of the people combined with swift and encompassing government policies helped Vietnam remain resilient during the pandemic, despite its devastating medical crisis and crippling economic impacts.

3.2 Economic Impacts of the Pandemic

The pandemic has had considerable effects on Vietnam's economy. Prior to 2020, Vietnam had enjoyed an impressive GDP growth rate of at least 5 percent on average from 2000 to 2019 (WB, 2023b), making it one of the most promising economies in Asia. However, ever since the start of the pandemic in 2020, the GDP growth rate suffered a heavy loss, rapidly decreasing to 2.9 percent in 2020 and 2.6 percent in 2021. Although this was positive compared to many countries regionally and worldwide, a rough 5 percent decrease still set back the bustling economy considerably. High rates of infection required constant preventative measures that caused substantial disruptions to the manufacturing sector and the supply chain.

Different sectors of Vietnam's economy were hit with varying degrees. The main contributors to the economy are the agriculture, industry, and service sector. Over the years, contributions of the service and industry sector had been increasing steadily from 2010 to pre-2020, while the opposite is true for agriculture. Figure 3.2 shows the composition of the economy in more detail. With the onset of the pandemic, economic activities were seriously hindered in these sectors. Medical measures like national social distancing or local area quarantines led to significant disruptions for businesses, restaurants, hotels, and shops. The sudden collapse in demand negatively affected the livelihoods of people in these sectors and slowed economic growth. Restrictions on international entry for foreigners and domestic travel had also damaged tourism and air transport substantially. The number of international tourists to Vietnam in the first half of 2020 decreased by 55.8 percent while domestic tourists experienced a 27.3 percent decline (Ho et al., 2021). Although later social distancing policies were relaxed, the closure of non-essential businesses remained. As a result, in 2020, while agriculture reported an increased growth rate compared to 2019 (2.68 percent), the numbers for the industry and service sector were significantly lower, at 3.98 percent and 2.34 percent, respectively.
Other economic indicators also reported negative impacts during the pandemic period.

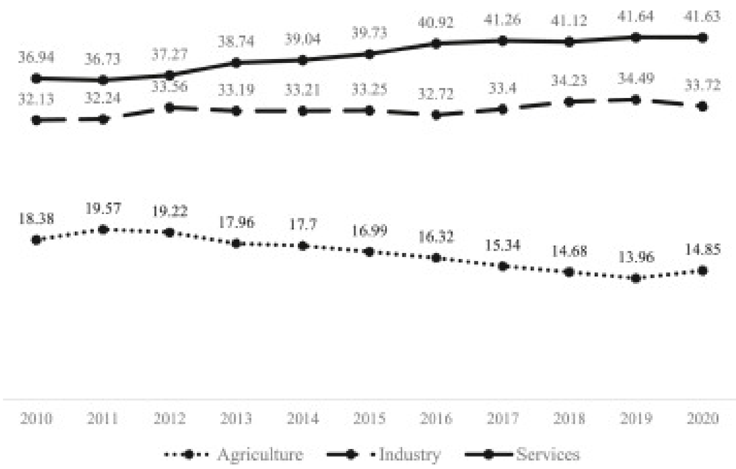

Figure 3.2. Sector contribution to Vietnam's economy (Ho et al., 2021)

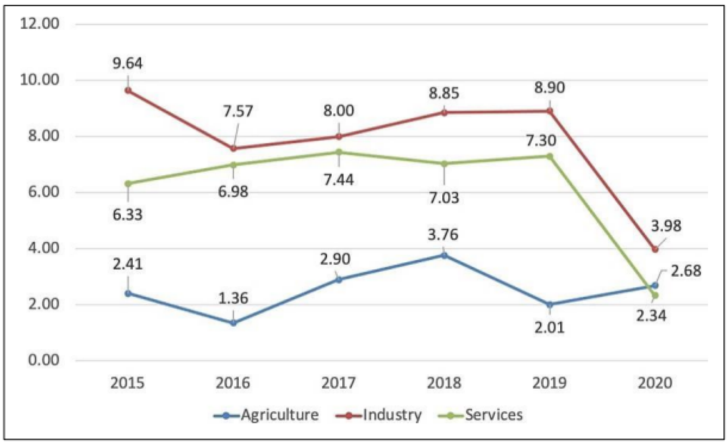

Figure 3.3. Sector growth rate (Nguyen et al., 2023)

Household's final consumption growth rate suffered a decrease from 7.23 percent in 2019 to 0.6 percent in 2020 (Nguyen et al., 2023). This was a result of less income and travel restrictions during the pandemic. Another strong aspect of the economy which was exports was also struggling during these times. Vietnam is a major exporting country with popular products like coffee, rice, and produce. to big markets like the United States, China, and the European Union. With constraints on travel and manufacturers of export products having lessened manpower, exports suffered quite a contraction (IMF, 2021b). On the other hand, fiscal stimulus policies had helped with the disbursement of public investment, slightly increasing the government's final consumption. The pandemic had substantial impacts on the labor market as well. Many jobs were lost since preventative policies like social distancing, self-isolation, or travel restrictions put heavy pressure on businesses to operate at full capacity or move to online workspace. Firms' reduced profitability induced more layoffs. The underemployment rate, which measures the percentage of individuals working part-time or in jobs below their skill level, was more than 1.8 million people in 2021, marking the highest level in the last 10 years (Nguyen et al., 2023). By the end of

2021, the total number of people losing their jobs, working under their abilities, or having their income decreased was more than 24.7 million people (GSO, 2022). The same year also reported 119,800 businesses ceasing operations permanently (17.8 percent higher than 2020) and about 160,000 newly registered firms (10.7 percent less than 2020) (Tran et al., 2023).

To conclude this section, the COVID-19 pandemic not only created an unprecedented medical crisis but also put massive strains on the economy. Despite the government's efforts, the pandemic had halted the Vietnamese economy considerably, steeply decreasing GDP growth rate. Businesses from different sectors suffered greatly from restrictive policies, which made them under-perform or completely go under. The pandemic hit particularly hard with important sectors like tourism, exports, or services. Firms, under the pressure of not only social distancing but also the serious disruption in both the demand and supply chain, faced shrinking profitability, and thus had to lay off more workers. This had led to mass under- and un-employment problems across the country, lessening people's income and further slowing economic activities. The next point of interest is then "How did the Vietnamese government handle the pandemic economically?" The next sections will then attempt to uncover the core policy responses that the Vietnamese government adopted during the pandemic and their impacts on the economy.

4 Policy Responses and Economic Impacts

This section will discuss the different policies that the Vietnamese government adopted during the pandemic and how they impacted the economy. At its core, the government's economic scheme included multiple fiscal and monetary policies aimed at alleviating the negative impacts and stabilizing the damaged economy. In this section, I will discuss these policies in more detail.

4.1 Fiscal and Monetary Policy in Theory

In this subsection, I very briefly discuss the mechanism and theory behind fiscal and monetary policies. The purpose of this discussion is to provide an overview of how these policies are supposed to work and their intended purpose. This subsection can serve as an important building block for later analysis of these policies since it can show how the government of Vietnam followed these mechanisms for designing crisis policy responses.

Firstly, fiscal policy is a set of government actions related to its revenue and expenditure.

According to Weil (2018), fiscal policy is enacted by the government when it makes decisions regarding the acquisition of goods and services, the allocation of transfer payments, or the collection of taxes. Governments implement fiscal policy to achieve macroeconomic objectives such as controlling inflation, stimulating economic growth, and ensuring overall economic stability. Using fiscal policies, governments can influence the aggregate demand in the economy (Weil, 2018). For example, in an expansionary fiscal scheme, if the government increases spending but keeps taxes constant, demand can be directly increased. Meanwhile, if taxes are cut and transfer payments are increased, aggregate demand can rise through higher households' disposable income. Fiscal policies can also affect other aspects such as the composition of aggregate demand, exchange rates, trade balance, and the gross domestic product (Weil, 2018). Weil also points to fiscal policies being a potential tool for stabilizing the economy. An example of this would be the use of expansionary fiscal measures during recession times like the COVID-19 pandemic, which can help restore original output level and incentivize economic activities.

Secondly, monetary policy can be categorized as the management of the money supply and interest rates by a country's central bank. The primary goal is to achieve stable prices, low unemployment, and sustainable economic growth. Central banks influence monetary policy through tools like open market operations, interest rates, and debt/loan measures. Similar to fiscal policy, in an expansionary monetary policy, the central bank increases the money supply to stimulate economic activity, while in a contractionary policy, it reduces the money supply to control inflation. Central banks use monetary policy as a tool to achieve their dual mandate of price stability and maximum employment. The impacts of expansionary monetary policies, which can boost aggregate demand during times of recession like the pandemic, on output, employment, and prices are a topic of heated discussion between monetarists and Keynesians (Tobin, 2023). To summarize the discussion, Keynesians argue that in situations of involuntary unemployment, increased spending can boost output and employment without causing inflation, while Monetarists contend that persistent unemployment reflects underlying issues not remediable by monetary policy, making such efforts futile and potentially inflationary. In periods of underutilization of resources, recent experiences indicate that demand expansion through monetary policy can positively impact real macroeconomic performance without necessarily leading to inflation (Tobin, 2023).

An important indicator of an economy's health is consumer sentiment and durable spending. Consumer sentiment reflects the overall confidence and optimism of consumers about the state of the economy, while durable spending includes purchases of long-lasting goods like cars and appliances. When consumers are optimistic about the economy, they are more likely to make significant purchases and investments, which can also translate to more durable goods. Mishkin et al. (1978) also discuss the relationship between these two indices. In their paper, Mishkin et al. validate the proposition that consumer sentiment reflects perceptions of the probability of financial distress: if consumers feel higher chances of financial distress, they would likely hold onto more liquid assets and refrain from purchasing illiquid ones such as durable goods. This relationship highlights their significance in shaping economic policies. Policymakers can use these indicators to measure the public's confidence and adjust policies accordingly. For instance, during periods of high consumer optimism, policymakers might implement measures to capitalize on increased spending and boost economic growth. On the other hand, in times of lower sentiment, they might consider strategies to improve confidence and stimulate durable spending. Consumer sentiment and durable spending will return in a later analysis of the impacts of these economic policies.

Fiscal and monetary policies are then powerful tools for the government to rely on to affect the economy. This is especially true in the case of a crisis, which requires swift and encompassing measures to stabilize and improve the economy. The aim of the government is then to improve the state of the economy by incentivizing economic activities and mitigating the severe impacts of the pandemic. The detail of these policies and how they impacted the economy will be discussed further in subsequent parts.

4.2 Government Fiscal and Monetary Responses

4.2.1 Fiscal Policies

The Vietnamese government introduced many sizeable stimulus packages to support most affected businesses and people. As of October 2020, the initial stimulus package was 4.1 percent of GDP (IMF, 2021b), which later increased to over 5 percent in mid-2021 (Nguyen et al., 2023). It was reported that, compared with other ASEAN countries, Vietnam's package was of rather moderate size (Nguyen et al., 2023). A possible explanation for this average package might be because of the country's limited resources at the time; the package could also be comparatively smaller since the country had had an effective control over the pandemic at least in 2020.

To aid struggling firms and enterprises, these fiscal policies include different measures to help them operate under fewer constraints. These measures consisted of, but not limited to, tax payment extension, a 15 percent decrease in rental fees, and a 30 percent drop in corporate tax in 2020 (Nguyen et al., 2023; IMF, 2021b). The total support package, which

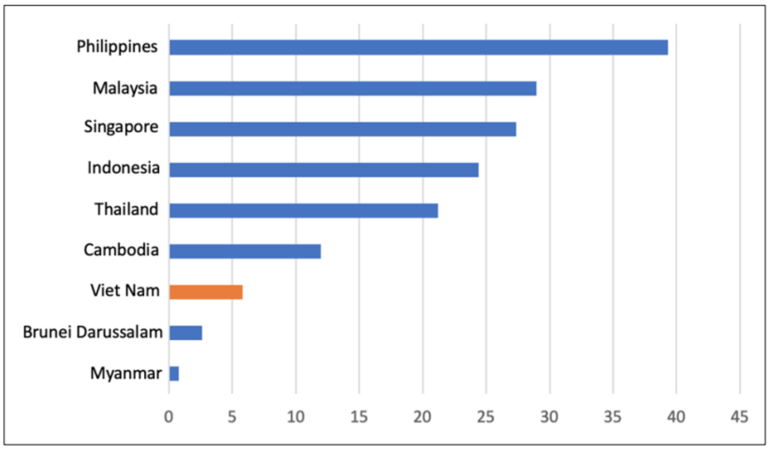

Figure 4.1. Estimated COVID-19 Stimulus Packages among ASEAN Member States (as of 31 May 2021) (Nguyen et al., 2023)

was made available to around 98 percent of all enterprises and most business households in the country, would amount to around 180 billion VND (Nguyen et al., 2023), which would be roughly 7.3 million USD.

Another focus point for government's policies during the pandemic was boosting public investments. This, as aforementioned, was an area in which Vietnam needed more improvements; and the pandemic stressed the necessity of not only increased funding for public investments but also effective usage of such investments. In 2020, 0.2 percent of GDP was dedicated to additional healthcare spending (IMF, 2021b). This increased spending was crucial in two points: (1) helping medical staffs with undoubtedly highly labor-intensive tasks like contact tracing and caring for quarantined patients and (2) improving the infrastructure of the healthcare system which was under-equipped for such a crisis. In the broader picture, the total approved public investment increased considerably in 2020, going up to nearly 700 thousand billion (roughly 29 billion USD) from 312 thousand billion VND (Nguyen et al., 2023).

The government also offered support for people who were most affected by the COVID-19 pandemic. The total fiscal support package amounted to about 0.96 percent of GDP (or 62,000 billion VND), which was then disbursed to around 20 million workers made unemployed by the pandemic (Nguyen et al., 2023). Temporarily laid-off and part-time workers would receive 1.8 million VND/person/month (or around 74 USD) while the number for workers without unemployment insurance would be 1 million (about 41 USD) VND/person/month (IMF, 2021b). Other groups of people susceptible to the impacts of the pandemic like poor and near-poor people or low-income tax-registered household businesses would receive around 0.5 to 1 million VND (IMF, 2021b). However, the disbursement of this financial funding was rather slow, reflecting Vietnam's long-standing issue of effective fund disbursement. Around 13 million people and 31,000 household businesses had received 12.8 trillion VND (around 530 million USD) as of 25 December 2020 (Bui et al., 2022). The slow disbursement was attributed to the government's overestimation of the number of people in need of the policy support (Bui et al., 2022).

To summarize this subsection, the Vietnamese government had implemented many sizeable fiscal policies to stabilize the economy and help those most affected. These fiscal policies revolved around major tax cuts for firms and enterprises, increased public funding, and direct fiscal support for people most affected by the pandemic. However, the process also ran into obstacles like fund disbursement effectiveness and coverage of the targeted groups, which hindered the reach and overall efficiency of the policies.

4.2.2 Monetary Policies

During the COVID-19 pandemic, the Vietnamese government also introduced multiple monetary policies, which aimed at stabilizing the economy, supporting businesses, and mitigating the financial impact on households. The State Bank of Vietnam (SBV) held the responsibility of making important decisions like tax cuts, credit packages, or loan restructuring. Firstly, the SBV decided to lower operating interest rate, which reduced the cost of borrowing capital for households and businesses (Figure 4.2). This had encouraged people to borrow at higher rates without harsh financial constraints, promoting economic activities even during the crisis. Lower interest rates also resulted in lower deposit and lending rates for the economy, allowing domestic credit and market capitalization to increase considerably (Nguyen et al., 2023). For better understanding, domestic credit refers to the total amount of credit or loans extended by financial institutions within a country's domestic economy, including various types of loans, such as consumer loans, corporate loans, and government loans. Meanwhile, market capitalization, often referred to as market cap, is a measure used in the financial markets to determine the total value of a publicly traded company. Both of these are used to assess economic stability, company value, and investment opportunities.

Another monetary policy to consider was loan and debt term restructuring along with loan interest exemption. Policies aimed at extending the loan term, reducing interest rates, or other adjustments that made loans more manageable had not only provided businesses with some much-needed financial relief and flexibility but also reduced the risks of loan defaults. In actuality, credit institutions had restructured/rescheduled loans for 272,283 clients, while the number of clients receiving reduced/exempted interest payments was 552,725 (IMF, 2021b). The total number of outstanding loans came to around 1,273 trillion

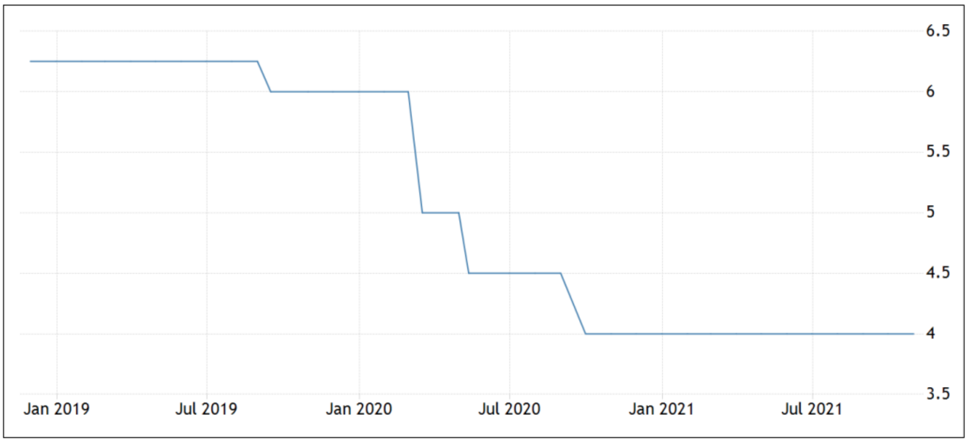

Figure 4.2. Operating interest rate (Nguyen et al., 2023)

VND (IMF, 2021b).

Additionally, the SBV had also introduced credit support packages for the banking system. This package had enabled banks to follow the above mentioned policies of interest rate cuts and loan restructuring by helping them balance their capital resources, save operating costs, and reschedule loan interests and payment fees (Nguyen et al., 2023). Banks were also expected to better observe and assess the status of borrowers to then efficiently implement support measures, maintain stability in deposit and lending interest rates, and promptly address the financial requirements of individuals with help from the government. The credit support package for banks then totaled to around 250 trillion VND (Nguyen et al., 2023). Other noteworthy monetary policies include reducing transaction fees for payments of small amounts, offering zero-interest-rate loans for affected companies to pay employees, and many others (IMF, 2021b).

4.3 Impacts of Policies on the Economy

This subsection then looks at the impacts of the fiscal and monetary policies implemented during the COVID-19 period on Vietnam's economy. Research into this area, unfortunately, has been rather limited, and this has affected the range of possible references for this particular part of the thesis. I will then focus on the models and findings of a few papers (Nguyen et al., 2023; Nguyen et al., 2022; Bui et al., 2022; Ho et al., 2021) to provide the most comprehensive understanding of the economic impacts of fiscal and monetary policies possible. Overall, these research had pointed to positive results from implementing timely fiscal and monetary responses, despite some immediate drawbacks for the economy. However, as the pandemic progressed, more and more response policies with even more considerable sizes were needed; and the introduction of these policies then brought about some longer-term negative implications for the economy.

4.3.1 Research methods

This part aims to provide an overview of the different methods and models used in the papers later discussed. These are commonly used methods and models in measuring different aspects of the economy, with some of them receiving some modifications to better account for the purpose and validity of the study. All the methods covered later will be briefly discussed here

To start off, to measure market risks across sectors in Vietnam, there exist two commonly used methods: Value-at-Risk (VaR) and Conditional Value-at-Risk (CVaR). VaR refers to "the maximum loss at a certain confidence level in a given holding period" (Bui et al., 2022). Risk managers and investors employ VaR to devise strategies for long-term capital management and assess anticipated losses (Jorion, 2007). While it appears to be the most commonly used risk measurement technique, VaR suffers from a few limitations, namely not adequately capturing extreme events (Artzner, 1999), lacking sensitivity to tail risk, and relying on assumptions that might not hold during periods of financial stress or significant market volatility (Breuer, 2006). Enters CVaR, a method introduced to overcome the drawbacks of VaR, providing an expected average rather than a wide range offered by VaR (Rockafellar, 2000). Many studies, therefore, combine both methods or use them separately to measure market risks in different areas of the economy.

Next, to capture the interconnections and dynamism between different sectors of the economy, researchers would employ a model called consistent empirical stock-flow (SFC). A consistent empirical stock-flow model integrates both stock and flow variables consistently and systematically for empirical analysis. The stock variable would be quantities measured at a specific point in time like total wealth, capital, or debt. Meanwhile, the flow variables are quantities measured over a period like income, expenditures, or investments. SFC models saw an explosion in popularity in macroeconomic modeling since the 2007-2009 financial crisis, partly because the crisis was successfully predicted using models and policy analyses based on SFC models (Nikiforos and Zezza, 2017). The advantage of the model is that it can provide a model that integrates the real and financial side of the economy, which is crucial in understanding the modern economy (Nikiforos and Zezza, 2017). SFC models typically consist of two main parts: the accounting framework and a set of behavioral equations. The accounting framework contains two matrices: the balance-sheet matrix and the transactions-flow matrix, while the equations result from how the behavior of different agents and sectors in the model is defined. The model structure aids in comprehending the connections of flows from a behavioral standpoint, or put simply, how the actions of a sector influence the movement of funds within the system.

A DSGE (Dynamic Stochastic General Equilibrium) model is a type of macroeconomic model used to analyze and explain the dynamics of an economy over time, combining elements of economic theory and statistical analysis. This model incorporates key features such as economic agents' optimization behavior, market clearing, and the impact of various shocks on the economy. The DSGE model has become increasingly popular among economists for macroeconomic analysis and monetary policy evaluation (Tian and Guo, 2013). Tian and Guo also point to some reasons behind this. Firstly, the model can provide a theoretical guideline on how the model economy is set up. This means it can help connect the basic parameters of the model to its underlying structure, showing how short-term changes connect to the long-term balance. Secondly, it provides a better way to analyze social welfare and design effective policies because it explicitly considers the happiness of people in the economy. Lastly, the DSGE model uses a well-grounded model to analyze monetary policies, making it less likely to be affected by a critical review known as the Lucas critique. An and Schorfheide (2007) also show that the model can be quickly estimated by the standardized Bayesian method, regardless of its complexity. In the end, the DSGE model is a valuable tool for economists.

Lastly, computable general equilibrium, or CGE, models are a type of economic model that estimates the reaction of an economy to changes in policy, technology, and other external factors. Traditional CGE models typically consist of five modules: resident, enterprise, government, commodity production and market equilibrium. These modules can be represented by a set of many nonlinear equations that define their behavior (Lofgren, 2002). The equations also include constraints that should be satisfied by the system as a whole. These constraints then cover markets and macroeconomic aggregates like savings-investments or the current account of the rest of the world (Lofgren, 2002). While traditional CGE models can measure the impacts of changes in financial policies, they fail to capture the effects of implementing monetary policies such as interest rates or credit since they do not include the lending behaviour of the financial market. Therefore, there exists the need to be able to examine the impacts of monetary policies alongside fiscal policies with the CGE model, for example via adding a financial module to the model.

4.3.2 Overall Impact of the Pandemic and Policy Responses on the Economy

In the broader context of the impacts of response measures on the economy, two papers (Ho et al., 2021 and Bui et al., 2022) aimed to measure market risks across different sectors before and after the COVID-19 pandemic using VaR and CVaR. While Ho et al. (2021) examine how market risks from different economic sectors were affected during the pandemic, Bui et al. (2022) provide more sides to the analysis by including the effects of policy responses and macroeconomic fundamentals like exchange rates and interest rates. Ho et al. describe market risk as the risk of loss for a portfolio due to changes in different factors in the economy like goods prices, exchange rates, and interest rates. Measuring market risks is essential for informed decision-making, risk management, regulatory compliance, and the overall sustainability and success of businesses and investment portfolios.

Both papers employ VaR and CVaR to estimate market risks across various sectors before and during the pandemic. They both use a similar method called the parametric approach, which assumes that the data follows a regular pattern and calculates VaR or CVaR based on how much the data typically varies. This method is helpful because it avoids the complicated calculations needed for the Monte Carlo simulation method (Odening, 2003), especially when dealing with complex portfolios. It is also less sensitive to unexpected changes in the data compared to the historical simulation method (Odening, 2003). They also rank each sector based on their market risk level, especially how this might change during the pandemic. Data for both papers were collected from the Ho Chi Minh Stock Exchange (HSX) and Hanoi Stock Exchange (HNX) from 2012 to 2020/2021, focusing on multiple sectors of Vietnam's economy.

Both Ho et al. (2021) and Bui et al. (2022) find that the COVID-19 pandemic has seriously disrupted the economy; however, their interpretations of this result differ slightly. Both papers conclude that all sectors of the economy responded significantly to the COVID-19 outbreaks, albeit the different levels of response. However, results from Ho et al. (2021) indicate that market risks were not significantly affected by the emergence of the pandemic, as opposed to what Bui et al. (2022) find. This difference might have come from the fact that Ho et al. use a dummy variable to proxy the pandemic while Bui et al. denote percentage changes in new COVID-19 cases as the pandemic variable. Ho et al. find that the two economic lockdowns in 2020 as responses to the pandemic substantially increased the sectoral market risks, which can be explained by raised economic uncertainty from sudden disruptions of all economic activities during these times. Bui et al. expand on this by finding that better containment and health policies can decrease market risk. They also conclude that reduced market volatility is associated with less economic policy uncertainty. In the end, with both papers employing relatively the same method and data samples, findings point to the association between the COVID-19 pandemic and sectoral market risks in Vietnam: the pandemic negatively affects economic certainty. Additionally, policy responses, to the pandemic help to stabilize the economy, which serves as first evidence on how these policies can impact on the economy.

4.3.3 Impact of economic policies

This subsection compares three different papers on the impact of economic policies on the Vietnamese economy during the COVID-19 pandemic. The paper by Nguyen T. et al. (2023) discusses how fiscal and monetary policies affect the real side and the financial side by running simulations, while Nguyen et al (2022) focus on monetary policies and Bui et al. (2022) analyze this topic more detail by looking at how fiscal responses impact households. By comparing these papers, I can look at the overall impacts of policies and how they might be similar or different across these different papers.

Nguyen T. et al. (2023) study the impacts of fiscal and monetary policies on both the real side and the financial side of Vietnam's economy in further detail, utilizing a consistent empirical stock-flow (SFC) model. The model of this study includes (1) six sectors: firms, the central bank (SBV), commercial banks, the government, households, and the rest of the world and (2) relevant financial factors like international reserves, cash, the VND and foreign deposits, bonds, loans, and others. The data used are available in most online open data sources like the UN, IMF, OECD, or official Vietnamese information outlets. The authors then conduct a simulation to measure the impact of policy interventions on the economy. They define a baseline scenario where all exogenous variables are projected into the future without COVID-19 pandemic policy responses. Following this, an alternative scenario is implemented with the presence of policy intervention like stimulus packages and recovery plan. This simulation helps the authors in understanding the impact of policy responses to the pandemic. With the alternative scenario, the authors integrate multiple changes like increased government's final consumption, public investment, and transfers from government to households - changes that are in in line with the actual value of stimulus packages and recovery plan. In the end, the authors find that policy intervention has a positive impact on the economy: increased public consumption and investment contribute directly to GDP; fiscal stimulus help stimulate households' disposable income and increase their consumption; and reduced interest rate reduces borrowing costs for firms and households, which can boost investments in the economy. However, as aggregate demand increases, higher inflation implies a reduction in the country's competitiveness. What's more, increased government expenditures for stimulus packages coupled with lower tax rates negatively impacts the public deficit, which can in turn increase public debt in the medium term. These findings point to the effectiveness of the both fiscal and monetary policies in the short-term, but they also raised problems for the economy in the longer run that might induce further research and policy responses.

As one of the rarer research papers into the impacts of policy responses during the pandemic on specific sectors of Vietnam's economy, Bui et al. (2022) study the effects of fiscal policies on households using household survey data. This study examines the connections between consumer sentiment, durable spending, the receipt of government financial support, and the underlying channels through which these responses occur. The target group for this study is households in Vietnam and Thailand. Regarding these countries, the authors point to their similarities and differences that are relevant for the studies. Thailand and Vietnam share borderlines with China, have a one-party government, similar population size, and relatively similar economic status. Their pandemic responses are also similar economically, in that there are multiple fiscal support policies aimed at different groups of people vulnerable to the pandemic. To understand how fiscal stimuli impact the people, the authors conduct two waves of online surveys during May and December 2020 in Thailand and Vietnam. The second wave of online surveys includes questions about whether the respondents had received any financial support from the government and their spending both in the last 12 months and the future. The authors are then interested in the second wave data since it contains information about consumer sentiment, household expenditures, economic expectations, trust in the government, and other important indicators. Data from the first wave is then utilized to compare with that from the second wave, which should represent the impact of fiscal stimulus packages. One main problem with surveys is the representativeness of the samples, where a too small sample cannot represent the whole population even if it is random. Failure to create a sufficiently large and randomized sample can negatively affect the conclusiveness of the results. To combat this problem, the authors construct population weights that consider the national distributions of age, education, and the proportion of individuals living in urban areas. By incorporating these weights into the analysis, the study accounts for demographic and geographic variations, thereby enhancing the likelihood that the sample accurately reflects the broader population. The sample size is also of a healthy number - more than 5,000 respondents from both countries. The data used are then generated from the surveys conducted. The authors find that the indicators of economic activity like consumer sentiment or household expenditures significantly correlate with fiscal assistance. For instance, those that received financial support have 9 to 13 percent higher consumer sentiment than those that did not. Durable goods are also more likely to be purchased by households with financial support in the future. The authors also find that respondents are significantly more optimistic about the economy if they receive financial support. These results suggest the importance of government financial support in stimulating household consumption during the pandemic. Those who received financial aid also report better mental health and life satisfaction. Financial assistance also boost trust in the government, which is important to countries under prolonged lockdowns or other harsh pandemic measures. While these results may just be pure correlation and not causation, the authors stress the important role that financial assistance play in stimulating current and planned durables consumption spending, drawing attention also to their positive spillovers beyond the direct consumption response.

Lastly, Nguyen et al. (2022) provide some insights into the overall impact of the COVID-19 pandemic and monetary policy responses on Vietnam's economy. Prior domestic research has primarily focused on evaluating executives' policy responses to the macroeconomic instability resulting from the pandemic, predominantly assessing their perceptions of the situation. There seems to be a lack of long-term-oriented policies and empirical studies providing more specific and comprehensive estimates based on the collected information. Therefore, this study aims to provide estimates of the impact of the pandemic on macroeconomic variables within the Vietnamese economy as well as illustrate how variables related to monetary policy respond to the shock. This paper utilizes a DSGE model. The model used in this paper is developed by the State Bank of Vietnam in collaboration with IMF and JICA experts, which is suitable for a small and economy of Vietnam. Additionally, the model also incorporates a variable for the probability of a COVID-19 outbreak, which can help answer the research question. The authors develop multiple equations that are crucial for the DSGE model: the IS line equation for a small and open economy, the Phillips curve equation for the relationship between inflation and GDP, the interest rate equation, and the exchange rate equation. The data is then collected from the IMF from 1996 to 2020. The authors find results from the DSGE model to be quite similar to the real-world situation. Results have shown that an increase in the probability of a COVID-19 outbreak can reduce the output gap. Interest rates, inflation, and exchange rates also decline, albeit slightly, in response to this shock, which can be attributed to policymakers learning from past crises. Next, increased refinancing interest rates can significantly reduce the output gap and slightly decrease inflation. This shows that inflation is less sensitive to policy interest rates, which implies that relying solely on interest rate adjustments may have limitations in effectively managing inflation, and that more unconventional monetary policies might be needed. Lastly, excess of capital can be present in some areas as a result of reduced interest rate and credit support, which can cause problems in the long-run like inflationary pressure or asset bubbles.

4.3.4 Neighborhood comparison

To provide a more comprehensive analysis of the impacts of economic policy responses, this subsection looks at a research paper into the same topic but set in China. While it is not a developing economy, analyzing the Chinese situation can help understand the consistency of Vietnam's results. The analysis makes even more sense when considering the similarities between these two countries: both countries have a single-party government, both aim for a socialist-oriented market economy, and both implemented swift, decisive, and stringent pandemic responses. However, it is noteworthy that the scope of China's economic policies is not comparable to that of Vietnam and there also exist significant differences that can matter for the discussion between these countries. The structure of these two economies can result in different vulnerabilities and resilience from economic shocks, which can affect the types of policies implemented. China has a more diversified and complex economy, including a substantial manufacturing sector and global supply chain integration, while Vietnam's economy is characterized by a focus on manufacturing, agriculture, and services. China also implemented a very stringent pandemic response called "Zero COVID-19", which focused on cordoning off entire cities or regions with COVID-19 cases. It is, then, reasonable to infer that economic policies could have focused on aiding the people in those quarantined areas. China is also much more globally integrated and plays a bigger role in the global economy than Vietnam, so policy responses might have to account for the global economic conditions and external demand shocks. Still, in my opinion, with the established similarities between the two countries, these discrepancies might not matter too significantly for discussing the impacts of economic policy responses on the economy.

Wu et al. (2022) assess how China's economic recovery from the pandemic is influenced by its fiscal and monetary policies. Their research questions revolve around the impacts of these economic policies on the economy and what can be the optimal policy during the crisis. Utilizing the computable general equilibrium (CGE) model, the study quantitatively assesses the implementation effects of fiscal and monetary policies. This paper adds a financial module to the model, which can enable the authors to examine the impacts of monetary policies alongside fiscal policies. To capture quantitatively the effects of fiscal and monetary policies on the China's economic recovery, the authors introduce specific policies, namely VAT exemption, increased government investment and health expenditure, lower loan rates and increased loan scale, into the model to run simulations. The data used for the model consists of the Input-Output table in 2017, flow-of-funds table in 2017, Finance Yearbook of China in 2018, and the international balance of payments in 2017.

For more context, China's pandemic economic policy responses are, at their core, the same as Vietnam. The country's fiscal policies include major tax and fee reduction, increased public investment, and financial support for those most affected. Vietnam and China share relatively the same set of monetary policies, in that they both lower interest rates and increase the loan rate for businesses.

In the end, the results that Wu et al. (2022) find resemble quite closely to those from Vietnam, despite using a different approach than previously discussed papers (SFC and DSGE models). Overall, fiscal and monetary policies have a positive impact on the economy. Within fiscal policies, expanding government spending contributes the most to boosting the economy, resulting in higher GDP, gross output, labor demand, and household income. This aligns well with the situation in Vietnam, as Nguyen T. et al. (2023) and Bui et al. (2022) have established the positive effects of fiscal policies on Vietnam's economy, especially for the GDP and households. Regarding monetary policies, targeted loans for businesses perform better than cutting loan rates, which enhances economic recovery in both demand and supply. This is represented by higher gross investment, consumption, output, and GDP. The authors conclude that while fiscal policies are better at improving the livelihoods of people, monetary policies should be favored when the objective is recovering enterprises and boosting the economy. The results of this study show that the situation in Vietnam aligns well with what happened in another, more developed country. However, this comparison also shows more aspects of the economic impacts of the policies implemented such as the optimal policy for each economic objective. This emphasizes the need for more research into the specific impacts of these policies on the economy, which can facilitate more effective policy-making in the future.

5 Discussion

Understanding how a developing country like Vietnam handled the pandemic economically with comparatively limited resources can help draw some insightful lessons for future crisis measures. In this section, I will summarize the results of the above analysis and what these results mean for the economy. Furthermore, I will provide some policy recommendations based on the results of the literature review. This section then ends by addressing the inherent limitations of the thesis.

The previous section has analyzed a collection of research papers on the impacts of fiscal and monetary policies on the Vietnamese economy. Nguyen T. et al (2023) provide an overview of policy impacts with a consistent empirical stock-flow model, which can capture the interconnections and dynamism between different sectors of the economy. The outcome variable that the authors want to study is the difference between the absence and presence of economic policy responses. Nguyen T. et al find that the various policies implemented by the government help significantly in incentivizing economic activities and ensuring people's livelihoods. Their findings highlight the positive contributions of government policies to GDP, including increased public consumption and investment, fiscal stimulus boosting household disposable income, and lowered interest rates reducing borrowing costs for firms and households. However, the authors also caution against potential negative repercussions, such as fiscal imbalance and reduced fiscal stability in the longer term.

To elaborate on the impact of these policies on a specific sector of the economy, Bui et al. (2022) study the impacts of fiscal policies on households via an inclusive survey across Vietnam and Thailand, two countries with enough similarities and differences economically and pandemic-response-wise. The authors then find that fiscal assistance shows a significant correlation with economic activity indicators such as consumer sentiment and household expenditures. Notably, those receiving financial support exhibit increased economic optimism, improved mental health, and heightened trust in the government, particularly crucial in times of extended lockdowns or stringent pandemic measures.

Lastly, Nguyen et al. (2022) look into the overall impact of the COVID-19 pandemic and monetary policy responses on Vietnam's economy. The authors use a standard DSGE model to provide evaluations of the effects of the pandemic on the Vietnamese economy and the efficacy of monetary policy measures. Results from estimating the model resemble those from the real world. While the pandemic negatively impacts the output gap of the economy, monetary policy responses are effective in mitigating the economic shocks. The authors also show concerns over excess of capital in some economic sectors resulting from lower interest rates and credit support packages, which can lead to inflationary pressure or asset bubbles in the future. This research's findings draw attention to the effectiveness of different types of monetary policies during the pandemic as well as calling for better inspection and supervision of policy implementation.

Although the three papers above were conducted with different approaches - from models built from publicly available data to surveys from residents, they all arrive at relatively the same conclusion: fiscal and monetary policies as pandemic responses are effective in mitigating the worst of the crisis and their impacts can be felt in different sectors of the Vietnamese economy. However, it is also important to note the repercussions of these policies on the economy in the longer run. As the world continues to navigate through uncertain times, these findings advocate for a better understanding of policy impacts and highlight the necessity to develop decisive and encompassing policies for economies globally, especially those still developing.

From the findings of these research, it is reasonable to draw some valuable implications for future policymaking not only for Vietnam but also for other similar developing economies. Firstly, the positive impact of fiscal measures on household sentiment, economic activity, and trust in government underscores the importance of targeted financial support during crises. Policymakers should consider implementing tailored assistance programs to improve not just economic indicators but also mental well-being and public confidence. Secondly, from the concerns of Nguyen T. et al. (2023) over the potential long-term impacts of expansive fiscal policies, more attention should be given to the balance between fiscal sustainability and economic stimulation. This holds even for post-pandemic recovery plans, where careful fiscal planning is necessary to avoid adverse effects on fiscal stability. Lastly, problems of excess capital resulting from monetary support further stress the importance of vigilant supervision and regulation. Policymakers should be familiar with the risk of inflationary pressures and asset bubbles so that they can implement measures to prevent imbalances that could compromise long-term economic health.

However, this thesis is not without its limitations. Firstly, the lack of literature can harm the depth of the analysis and comprehensiveness of the results. As established before, while materials on the economic impact of the pandemic are quite abundant, research papers into the impacts of fiscal and monetary policies on the economy have been rather scarce even for more developed economies, let alone developing ones. This scarcity has limited the breadth of perspectives on policy response impacts. For example, while the effectiveness of fiscal and monetary policies have been established in multiple papers, the unwanted side effects have been largely left unanalyzed. This raises questions on how exactly these policies impacted the fiscal balance, public debt, capital accumulation, or the mechanisms behind their effects. Additionally, more materials on how policy measures affected other groups like business owners or the poor or on specific economic sectors like manufacturing, tourism, or trade would make for a more convincing analysis. Another drawback of this thesis is its external validity. Arguments made for Vietnam, while potentially applicable to countries of similar economic status and resources, might not be suitable to compare with more developed nations. This further highlights the necessity of researching into pandemic economic responses for countries globally as the world recovers from the pandemic and develops policy plans for recovery and future crises.

6 Conclusion

In conclusion, the COVID-19 pandemic has brought about unprecedented impacts on a global scale. Vietnam, as one of the closest countries to China and one of the first to implement cautionary policies, suffered from the major disturbances of the pandemic such as disrupted supply chain, lowered demand, and many others. The Vietnamese government, then, implemented multiple economic measures to incentivize economic activities and ensure people's livelihoods. At its core, the economic response scheme consists of fiscal and monetary policies. Multiple sizeable fiscal stimuli were issued as crucial assistance to those most vulnerable to the pandemic while tax cuts and loan/debt term restructuring aimed at aiding companies and enterprises. The government also increased public spending and investment, which went towards better infrastructure and healthcare system. The objective of this review is then to uncover the impacts of these policies on the economy and provide some implications for future policymaking.

The government's decisive and encompassing policy responses have had positive effects on the economy. Fiscal policies like increased public spending and consumption contributed directly to GDP growth, while fiscal stimuli and lower interest rates helped raise aggregate demand through boosting household disposable income and reducing borrowing costs. Fiscal assistance also correlates significantly with consumer sentiment or household expenditures. Those receiving financial support also exhibit increased economic optimism, improved mental health, and heightened trust in the government. Monetary policies were also effective in mitigating the economic shocks of the pandemic. Interest rates, inflation, and exchange rates decline slightly in response to the pandemic, which can be attributed to policymakers learning from past crises. Yet, since inflation appears to be less sensitive to policy interest rates, more unconventional policies might be needed.

While the necessity and effectiveness of these policy measures were undeniable, they also came with a cost. As aggregate demand increases from fiscal stimuli, higher inflation could imply a reduction in the country's competitiveness. Increased government expenditures for stimulus packages coupled with lower tax rates also negatively impact the public deficit, which can in turn increase public debt in the medium term. There are also concerns over excess of capital in some economic sectors resulting from lower interest rates and credit support packages, which can lead to inflationary pressure or asset bubbles in the future. These findings call for caution over the consequences of these policies as well as better inspection and supervision of policy implementation.

From here, I suggest some potential lessons for future policymaking. Firstly, from the positive impacts of fiscal stimuli, it is reasonable to suggest that policymakers should consider implementing tailored assistance programs to improve not just economic indicators but also mental well-being and public confidence. Secondly, more attention should be given to the balance between fiscal sustainability and economic stimulation, which holds even for post-pandemic recovery plans, where careful fiscal planning is necessary to avoid adverse effects on fiscal stability. Lastly, policymakers should be familiar with the risk of inflationary pressures and asset bubbles so that they can implement measures to prevent imbalances that could compromise long-term economic health. While the pandemic has left deep scars on the economy and the people, I believe that, from the lessons of the pandemic along with proper precautions and preparedness, countries worldwide can recover quickly and be ready for any upcoming crises.

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