Policy responses to cope with COVID-19 in Viet Nam. An empirical stock-flow consistent approach

Thi Thu Ha Nguyen¹  Etienne Espagne²
Luis Reyes³  Thi Anh-Dao Tran⁴

Conference on ”Effective Public Debt Management and Fiscal Sustainability in the Post-COVID-19 Era”
March 2022

¹ LASTA, Université de Rouen; hanguyencerdi@gmail.com
² Agence Française de Développement; espagnee@afd.fr
³ Kedge Business School; luis.reyes@kedgebs.com
⁴ LASTA, Université de Rouen; thianh-dao.tran@univ-rouen.fr
Outline

1. Context and Objective
2. Method and Data
3. The model
4. Simulation results
5. Conclusion
Table of Contents

1. Context and Objective
2. Method and Data
3. The model
4. Simulation results
5. Conclusion
COVID-19 pandemic in Viet Nam

Figure 1: Total number of cases of COVID-19 in Viet Nam

Source: Worldometer COVID-19
COVID-19 impacts on economic growth

Figure 2: Quarterly GDP growth rate (y-o-y, %)

Source: GSO
COVID-19 impacts on investment

Figure 3: Growth rate of investment by institutional sectors (%)
COVID-19 impacts on labor market

Figure 4: Unemployment rate (%)

Source: tradingeconomics.com, GSO
Vietnamese government responses

- Financial support package in 2020 (US$ 2 billion)
- Worker support package in 2021 (US$ 1.24 billion)
- Tax measures
- Reduce interest rate
Recovery plan - Resolution 43/2022/QH15

A package around US$ 15 billion

**Fiscal policies**

- Tax measures (↓ 2 % VAT and CIT deduction for businesses)
- Social security: US$220 million
- Credit support with rate of 2%: US$1.76 billion
- Infrastructure development: US$5 billion

**Monetary policies**

- Reduce interest rate by 0,5% - 1% in 2022 và 2023
Recovery plan - Public finance

- Allow to increase the public deficit in 2022 và 2023 by 1% - 1,2%GDP/year
- Financing
  - Government bonds: priority for domestic market
  - ODA
  - Other officials loans
  - Others: saving, tax reforms...
- Resolution 23/2021/QH15
  - Public deficit (2021-2025): 3.7%GDP
  - Public debt limit (2021-2025): 60%GDP
  - Limit for country’s external debt (2021-2025): 50%GDP
Public debt

Figure 5: Public debt - Public deficit (%GDP)

Source: Ministry of Finance
Research Objective

Analyze the different consequences of the public intervention to cope with the COVID-19 pandemic by using an empirical stock-flow consistent model for the Vietnamese economy
Stock-flow consistent modelling

- Godley & Tobin (70s), Godley & Lavoie (2007)
- Integrating the financial and the real sides of the economy in a common analysis framework
- Accounting consistencies (balance sheet and transaction flow matrix)
- Dynamic behaviours
  - How agents determine and finance their expenditures?
  - How agents allocate their wealth on financial assets?
  - Specify the productivity growth, wages and inflation
  - Financial flows
Annual data from 1996 to 2019

Combine and integrate different data sources: WDI, IFS, ADB, State budget, GSO...

Balance sheet and Flow matrices

Accounting and Behavioral equations

Estimated parameters: Vector Error Correction Models, OLS

---

5 Due to lack of official data for the accumulation accounts
# Table of Contents

1. Context and Objective
2. Method and Data
3. The model
4. Simulation results
5. Conclusion
Main features

- Production decision: adaptive expectations
- Firm’s investment and financing
- Central bank and monetary policy
- Commercial banks and financialization
- Households: consumption, investment and accumulation of financial assets
- Rest of the world: trade, remittances, FDI...
The government sector

- Revenues: taxes, other transfers or payments ...
- Expenditures: final consumption, transfers, public investment ...
- Public deficit: issuing bonds or borrowing from abroad.

**Figure 6: Domestic vs External debt**

*Source: Ministry of Finance*
Table of Contents

1. Context and Objective
2. Method and Data
3. The model
4. Simulation results
5. Conclusion
Fiscal shock

- Baseline scenario
- Stimulus packages and Recovery plan
- Modelling implications:
  - Increase government’s final consumption
  - Increase public investment
  - Increase transfers from the government to households
  - Reduce value-added tax rate
  - Reduce the interest rate of the central bank
Simulation results

Figure 7: Simulation results (Trillion dong)
Fiscal shock (con’t)

**Figure 8:** Public deficit (%GDP)

**Figure 9:** Public debt (%GDP)
# Table of Contents

1. Context and Objective
2. Method and Data
3. The model
4. Simulation results
5. Conclusion
Conclusion

- An empirical SFC model for the Vietnamese economy
- Stimulus packages effective $\rightarrow$ ↑ public deficit and public debt
  BUT still lower than the public debt limit
- Domestic rather than external debt $\rightarrow$ avoid debt burden
- In short-run, borrowing BUT in the medium and long-run $\rightarrow$
tax and spending policies after the recovery
- Recovery $+$ long-term structural challenges $\rightarrow$ Policy mix:
  resilient and inclusive economic growth and sustainability of
government finances.
- Further research
  - Incorporate interactions between tax and spending policies
  - Useful tool for analysing the effects of public policies
Thank you for your attention!