Examining the U.S. Monetary Shock to Indonesian Government Bonds in Volatile Periods

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Roadmap

I. Summary
II. Discussion
I. Summary
This paper attempts to answer the following two questions.
① Does the U.S. monetary policy have a contagion effect on the Indonesian GB yield?
② Which period has the most severe impact on Indonesian GB yield among the three, which are the 2008 QE, the 2013 tapering and normalization, and the COVID-19 pandemic?

This paper analyze spillover effects of the changes in the U.S. monetary policy on financial markets of developing economies.
- This paper decompose transmission medium of global shock into three channel: liquidity, portfolio balance, and confidence measured by U.S. 3-monty T-bill, U.S. 10-year T-bond, and VIX respectively.
- In particular, this study empirically evaluates the effect of the U.S. monetary policy on the Indonesian GB yield.
This paper concludes that the U.S. monetary policy has a significant impact on Indonesian GB yield mostly through portfolio balance and confidence channel.

- The U.S. monetary policy impact through portfolio balance channel is most significant during the U.S. monetary policy normalization period (2014~2019).
- Liquidity channel has little significance in explaining Indonesian 10-year GB yields except prior-to 2008 QE period.
- Confidence channel becomes less significant in Covid-19 QE period than in 2008 GFC QE period.
Ⅱ. Discussion
The major concern of EMs from the policy normalization of the Fed is capital outflows

Capital will be flew back to the U.S. when Fed increases FFR and normalizes its balance sheet.
- Devaluation of EM currencies and rise in interest rate are expected as consequences of the rollback

1. **Devaluation of the local currency as foreign investors withdraw their investment in fear of exchange rate risk.**
   - In terms of trade, it could increase exports due to a favorable price competitiveness (+)
   - Also, inflationary pressure will be increased due to the rise in import prices (-)
2. Rise in interest rates

- It produces decrease in consumption and investment, leading to recession in the economy.

- According to Engler, Piazza and Sher (2021), each percentage point rise in the U.S. interest rate tends to increase long-term interest rate by a third of a percentage point in EMs.

\[
\text{Long-term yield} = \text{Average expected short-term risk-free rate} + \text{Inflation expectation} + \text{Risk premium}
\]

- Which drives the pick up of long-term yield is important in macroeconomic management…
The question is which countries are more vulnerable to the rollback shock

- Prachi et al. (2014), Ahmed, Coulibaly and Zlate (2015) argued that EMs with fiscal stability, sufficient foreign reserves, and sound macroeconomic fundamentals are less prone to Fed shocks.

- On the contrary, Eichengreen and Gupta (2014) suggested that macroeconomic fundamentals of EMs are not closely related to Fed shocks. (Hmm...)

- Cerutti, Claessens, and Ratnovski (2014) found that the term spread in interest rates has higher explanatory power than the short-term rate alone in explaining capital outflows.

  ▪ With a flatter yield curve, the U.S. bank will seek for higher yield from EMs and, hence, the EMs are less affected by the Fed’s rollback.
Fear of the repeat of “taper tantrum” episode of 2013, when indication of an earlier tapering of U.S. bond purchase caused a rush of capital outflows from EMs
- Pick up in economic activity in AMs could lead to export growth in Ems
- However, countries relying on external borrowing will be subject to financial stress from both a depreciated local currency and a higher interest rate.
Since the beginning of the 2010s, Indonesian U.S. dollar bond yields have declined more than the yields on local currency GBs.

After the Covid-19 shock, Indonesian GB yields increased sharply compared to other EMs.
Nonresident Participation in GB markets

In 2019, Indonesia was among the EMs with the highest participation of nonresidents in local currency bond markets.

A higher participation of nonresidents has two sides:
- (+) improving bond market liquidity and increasing financial resources with lower funding costs
- (−) increasing the exposure to risk associated with sudden capital outflows

Sudden capital outflows by nonresidents in periods of financial stress would potentially invite disorderly market conditions.
Indonesian GB markets during COVID-19 crisis

- Share of nonresident holding in total outstanding debt in Indonesia declined sharply compared to that in EM average. - Indonesian domestic banks increased their holding of local currency CBs to compensate for the reduced holdings by nonresidents.

- Changes in share of nonresident holdings of local currency GBs are more serious in the Covid-19 crisis period than the earlier taper-tantrum and Fed rate normalization period.
The rollback of QE will induce depreciation of Indonesian rupiah and a higher volatility in the exchange rate.

- Depreciation tend to lower $-denominated effective return for nonresidents, thereby affecting the demand for Rupiah.
- With the gradual rollback, the spillover effect for Ems are likely benign.
- However, if the Fed takes unanticipated big steps to stem inflation, it will pose a major challenge for EMs.
- Countries with a solid fiscal backing, low private debt, and sufficient foreign reserves will be less vulnerable in times of turbulence…
Increase in government debt and current account deficits will push down the recovery of economy.

- Reinhart (2009), Obstfeld and Rogoff (2009), Corsetti (2009) argued the rise in government debt increases country risk and brings in higher interest rates and inflationary pressure.
Market segmentation in interest rates in emerging markets

- Short-term interest rates are associated with the domestic monetary policy
- Long-term interest rates are determined by foreign factors, such as international capital mobility, QE, FFRs, etc.
  - A lax MP in a developed economy → increase in foreign demand for GBs of emerging economies (push factor), → lower long-term interest rates → boom in the asset market
  - Vice versa for a tighter MP in a developed economy, hence, financial markets becomes more vulnerable to foreign interest rate shocks

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Thank You