The Heterogeneity of Banks, Businesses and Households in the Monetary Policy Transmission Mechanism

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1. Overview

The post-Covid-19 period and the surge in global inflation have prompted central banks worldwide to tighten monetary policy (MP) to control inflation. However, the persistence of inflation in many countries has raised questions about the effectiveness of MP transmission in recent times. Numerous studies have demonstrated that the impact of MP transmission varies across countries, depending on the structural characteristics of their economies. This derives from the observation and comparison among different countries. But what about within a single country? Do differences in the characteristics of businesses, households or banks within the same economy influence the MP transmission mechanism? In other words, is there heterogeneity in how MP affects different entities within the same group (households, businesses or banks) in the economy? Research findings and practical experiences suggest that the diversity or heterogeneity of households and businesses, especially non-financial businesses, significantly affects MP's ability to influence macroeconomic variables. In return, these entities are also affected by economic fluctuations. In Vietnam, some studies have shown that MP can have uneven effects on different groups of banks and businesses. Large banks, for instance, are less sensitive to MP adjustments than smaller banks. For businesses, evidence suggests that domestic enterprises are more affected by MP than foreign direct investment (FDI) enterprises. Moreover, businesses with high leverage ratios are more sensitive to MP changes than those with lower debt levels. For households, preliminary observations by the State Bank of Vietnam (SBV) indicate differences in their responses to MP. However, the limitations in availability of empirical data remains a significant challenge for further research.

2. International evidence

Some recent studies, such as ECB research in 2022 (Thürwächter, 2022) which examined the determinants of enterprises' sensitivity to MP changes, highlight that firm age and size are two critical factors. The findings reveal that for newly established and small enterprises, investment spending significantly declines under tight MP conditions. However, this effect diminishes as the firm's age and size increase. Moreover, regardless of age or size, enterprises with higher growth rates (driven by high labour productivity) are less affected by MP changes than low-growth enterprises (with low productivity). High-growth enterprises benefit from stronger positions and better investment opportunities. Additionally, the reallocation of resources from inefficient to more efficient enterprises makes high-growth enterprises more independent in investment decisions when financial conditions shift. Conversely, a study by Sun et al (2021) in China found the opposite result: large enterprises' investments are more sensitive to loose MP than small enterprises but are less sensitive under tight MP conditions. This is primarily because large enterprises tend to borrow from large banks, which are less affected by tight MP than smaller banks that provide loans to small enterprises. When the central bank eases MP and liquidity conditions improve, large enterprises with stronger financial capabilities and less vulnerability to policy reversals are more motivated to expand investments than smaller enterprises.

Another study by the Bank of Canada (Alves et al., 2022) indicates that household heterogeneity in income, assets and risk aversion influences MP transmission effectiveness. Additionally, enterprises with higher bad debt risks face greater financial costs and require more significant stimulus measures to encourage investment. The aforementioned findings emphasise the impact of household and non-financial firm heterogeneity on MP transmission.

Tran (2024) examined three ASEAN countries – the Philippines, Indonesia and Thailand – and found evidence that MP affects household consumption differently depending on household characteristics. Specifically, in countries with a larger proportion of "hand-to-mouth" consumers, the transmission of tight MP is more pronounced and quicker. The reason for this is because such households lack savings to buffer against economic challenges during tight MP, forcing them to cut consumption. In contrast, households with savings can reduce their savings to maintain spending levels. However, this study did not clarify whether the effects under loose MP are consistent with those under tight MP. In practice, loose MP and improved economic conditions do not necessarily lead to a faster increase in consumption among hand-to-mouth households. This suggests that household heterogeneity creates asymmetrical effects under tight versus loose MP scenarios.

3. The heterogeneity of households and non-financial enterprises in MP transmission in Vietnam

Empirical studies suggest that the heterogeneity of banks and enterprises significantly influences the transmission of MP in Vietnam.

First, the impact of MP on different groups of banks is not uniform. In Vietnam, banks are the primary source of funding for economic activities due to the underdevelopment of the capital market, which has not yet been able to meet the economy's capital demand. Therefore, banks remain the critical intermediaries in the effective transmission of MP, particularly through interest rate and credit channels.

Vietnam's financial system comprises 49 banks, including the Big 4 group (one fully state-owned commercial bank and three state-controlled joint stock banks); the rest are private banks and foreign banks, which are significantly smaller than the Big 4 banks. The Big 4 group accounts for approximately 40% of total assets in the banking system and nearly 50% of the market share in deposits and credit. This disparity in financial capacity and market share leads to differences in the transmission effects of MP among these bank groups. According to Nguyen and Tran (2021), large banks with higher profitability are more likely to take risks than smaller banks. Consequently, when MP tightens and corporate risk increases, larger banks are slower to raise interest rates or reduce credit than smaller banks. Furthermore, in a less developed capital market, smaller banks face higher competitive pressure to maintain market share and sustain their deposit base for lending activities. As a result, when the central bank raises interest rates to tighten MP, smaller banks tend to increase rates more rapidly and aggressively. This sometimes triggers rate wars, amplifying the MP transmission effect excessively and causing liquidity volatility in the money market as deposits shift among banks in response to these rate wars. Conversely, under loose MP smaller banks are slower to respond than larger banks. They maintain higher interest rates to attract depositors and compete for market share. This behaviour results in an asymmetric MP transmission effect: tightening MP often amplifies its impact due to rate wars among smaller banks while easing MP typically has a weaker transmission effect because smaller banks delay rate cuts to maintain competitiveness.

Second, the impact of MP on enterprises is also heterogeneous. For non-financial enterprises, sensitivity to MP adjustments depends on factors such as capital structure, debt composition, size, years of operation and industry. Insights gathered from enterprises during Bank – Enterprises Connection Conferences indicate that non-financial enterprises respond differently to MP changes. For example, regarding capital sources, domestic businesses in Vietnam tend to rely more heavily on domestic financing (due to limited access to international capital), making them more sensitive to MP changes. In contrast, foreign-invested enterprises are less sensitive to domestic MP adjustments as they generally have independent financing sources. This partially explains the relatively low MP transmission effect in Vietnam, where FDI enterprises play a significant role in economic production as they account for over 70% of export turnover and approximately a quarter of annual GDP.

Regarding financial leverage, enterprises with higher leverage are more sensitive to changes in interest rates and credit conditions, whereas those with lower leverage are less affected. Consequently, easing MP helps these enterprises alleviate financial cost pressures, providing resources and conditions for expanding production and business activities. Conversely, when inflation rises and the economy overheats, tighter MP disproportionately affects these highly leveraged enterprises, causing their investments to contract more rapidly than those less dependent on leverage. Additionally, regarding debt structure, enterprises and households with fixed rate loans or deposits are less sensitive to short-term MP fluctuations than those which predominantly use floating rate loans or deposits.

Third is the impact of MP on households. In principle, changes in MP affect households' decisions regarding spending, borrowing, saving and investment. How different household groups respond to policy changes varies, depending on factors such as income levels, asset ownership, asset liquidity, and risk aversion attitudes to economic fluctuations. The middle-class group typically holds a variety of financial assets such as stocks, bonds, bank deposits and real estate, which are highly sensitive to changes in monetary and financial conditions. As a result, this group is more likely to be affected by MP adjustments through the wealth effect channel. Meanwhile, low-income households generally own fewer financial assets and rely more on stable monthly income (wages and fixed income) with limited saving capacity. Particularly, hand-to-mouth households are less affected by the wealth effect but are affected more through the income effect, leading to reduced consumption when interest rates rise and the economy weakens, as suggested by Tran's (2024) study of Thailand, the Philippines and Indonesia. This indicates that middle-class households, which hold financial assets, will respond more quickly to MP changes than low-income households. The latter group tends to react only after a delay, when the economy starts to show tangible effects, and household income is affected. Unfortunately, no published data on household consumption by income group are available in Vietnam, preventing further empirical studies to test this hypothesis in the Vietnam context.

The rapid expansion of Vietnam's economy in recent years, along with rising household incomes, has led to the growth of the middle class. Additionally, the financial market has become increasingly diversified, enabling investors to access profitable investment channels more easily and facilitating efficient capital mobilisation. These developments have increased the share of financial assets in the portfolios of households and non-financial enterprises. Consequently, MP's impact on economic agents has undergone significant changes compared with previous periods, requiring the SBV to continue monitoring and conducting in-depth research on these effects in the future.

4. Challenges in incorporating the heterogeneity of households and non-financial enterprises into MP implementation

It is evident that the heterogeneity among MP's target groups affects the effectiveness of its transmission. Some argue that unconventional MP could be employed to target specific groups, thereby achieving the desired transmission effects. However, further comprehensive research and robust data are needed to evaluate this perspective fully. The SBV has identified two critical issues for consideration.

First, heterogeneity and diversity are inherent characteristics of markets, fostering competition and development while also reflecting market imperfections. Utilising policy measures to address and compensate for market failures is necessary; however, the frequency and timing of such interventions must be carefully considered to avoid adversely affecting market competition and development dynamics. While MP can address short-term issues, structural challenges require systemic restructuring as a long-term solution. For example, in Vietnam the differential responses of large and small banks to MP do not imply that the SBV should adopt different policies for these groups. Instead, the solution lies in accelerating the restructuring of the banking system to reduce disparities in financial capacity and operational scale among banks, thereby enhancing the overall effectiveness of MP implementation.

Second, introducing numerous tools aimed at addressing the needs of different groups complicates the management of MP. Given limited resources, central banks may face difficulties in fully controlling the effects of these tools. Additionally, such complexity hampers communication efforts and MP transparency, which are key factors influencing the effectiveness of policy transmission. In practice, enhancing communication strategies to increase the transparency and accountability of MP to the public may yield more effective transmission outcomes than adopting additional specialised, unconventional tools.

5. Conclusion

In summary, the heterogeneity of economic agents – including banks, businesses and households – affects the transmission of MP. Although comprehensive and thorough analyses of these impacts in Vietnam remain limited due to data constraints, the growing importance of these factors has led the SBV to prioritise further research and collaboration with relevant authorities to develop more comprehensive databases. These efforts aim to gradually incorporate heterogeneity considerations into MP decision-making processes. Nonetheless, under current conditions in Vietnam, addressing this issue will require significant time due to the complexity of constructing micro-level data and forecasting models to simulate heterogeneity. Furthermore, market heterogeneity is a natural feature that promotes competition. Any attempts by the SBV to adjust and address heterogeneity for individual agent undermines inherent competitive mechanisms and the capital allocation process. Thus, careful consideration of heterogeneity is essential when formulating and implementing MP.

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