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Analytical Note

Timeliness and Sensitivity of Monetary Policy Transmission in the Philippines[1]

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Since the introduction of an interest rate corridor in 2016, the Philippines has improved monetary policy transmission, with short-term market rates responding more quickly to policy rate changes. However, transmission remains slow and limited for long-term bond yields, deposit rates, and bank lending rates—especially for MSME and consumer loans. This underscores the need for further reforms, including strengthening credit information systems to actively integrate them into banks' lending practices, as well as deepening capital markets by channeling more domestic and foreign savings into those markets, syncing regulations across investment schemes, reducing withholding taxes to broaden the investor base, and advancing regional financial integration, so as to enhance the effectiveness and timeliness of monetary policy.

I. Introduction

1. An effective monetary policy requires a strong transmission mechanism to ensure that policy measures translate into desired macroeconomic outcomes. In the Philippines, however, monetary policy transmission to the real economy has been uneven. While increases in the policy rates of the Bangko Sentral ng Pilipinas (BSP) have helped reduce inflationary pressures,[2] the impact on private consumption and private investment has remained ambiguous. Building on Wacharaprapapong (2024), which examined transmission during the 2022-2023 tightening cycle, this Analytical Note provides a more in-depth quantitative assessment of the delays and limitations across different monetary policy cycles. It also examines why transmission differs across segments and draws policy implications for strengthening the effectiveness and timeliness of monetary policy.

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[2] Escranda and Bondoc-Quiban (2024) found that the BSP's tightening policy had influenced credit supply mainly through small banks.

2. This study aims to quantitatively assess monetary policy transmission in the Philippines through the lenses of timeliness and sensitivity. To measure timeliness, we employ the dynamic time warping (DTW) method, which estimates the distance between various market yields or bank interest rates and the policy rate, which is the Target Reverse Repurchase (RRP) rate[3] in the Philippines. DTW also estimates the average lead-lag relationship among them from February 2002 to July 2025, with sub-samples before and since the implementation of interest rate corridor (IRC). Sensitivity, or the degree of pass-through, is assessed by calculating the change in different interest rates or bond yields as a share of the corresponding benchmark rate change in each monetary policy cycle. For this purpose, seven monetary policy cycles—four easing and three tightening cycles conducted by the (BSP—have been identified from July 2007 to November 2023, excluding the current easing cycle, which began in August 2024.

II. Methodology

Estimating Distance and Lead-lag Relationship

3. The DTW method is employed to measure the timeliness of monetary policy transmission. DTW is a widely applied non-parametric algorithm to measure the similarity between two time series that may not move in sync. Unlike standard correlation measures that assume both series evolve at the same pace, DTW "warps" the time axis to align them more flexibly. This feature makes DTW particularly useful for assessing monetary policy transmission, where the effects of policy rate changes on inflation, output, or financial variables are often delayed.[4]

4. The first output of DTW is the distance measure, which captures how closely two series resemble each other once they are optimally aligned. Specifically, measuring the distance (the inverse of "similarity") between time series requires calculation of the alignment path, meaning a mapping between observations in the two series. According to Lemire (2009), given a query series (various market and bank interest rates) $X = (x_1, \cdots, x_N)$ of length $N \in \mathbb{N}$ and a reference series (the policy rate in this study) $Y = (y_1, \cdots, y_M)$ of length $M \in \mathbb{N}$, the objective of DTW is to temporally align these two sequences in some optimal sense under certain constraints. The elements in X and Y are denoted by the symbols $i = 1, \cdots, n$ and $j = 1, \cdots, m$, respectively. The only restriction placed on the two data series is that they should be sampled at equidistant points in time. To compare the two different series, a dissimilarity function (*d*) with cost (difference, *φ*, see Giorgino, 2009 and Myers *et al*., 1980) is defined between any pair of elements x_i and y_j:

$$d\left(\varphi_x(i), \varphi_y(i)\right) = f\left(x_i, y_j\right) > 0 \qquad \text{(Equation 1)}$$

[3] The main policy rate set by the BSP's Monetary Board is now referred to as the Target RRP rate, which is a variable-rate format with a pre-determined offer volume in the auction for the overnight RRP facility. Before 8 September 2023, the policy rate referred to overnight RRP rate. See BSP rate table: https://www.bsp.gov.ph/statistics/Financial%20System%20Accounts/BSPrates_rrp_data.aspx

[4] The DTW results should be interpreted as descriptive indicators of co-movement rather than as causal measures of pass-through. The causal relationship can instead be assessed through formal econometric analysis. Moreover, the DTW analysis provides information on the speed of adjustment but does not reflect the full completion of the monetary policy cycle.

To determine an optimal warping path for the two series X and Y, the total cost (φ) of all possible (N, M)-warping paths could be calculated thus:

$$d_{\varphi}(X,Y) = \sum_{i=1}^{N} \sum_{j=1}^{M} d\{\varphi_x(i), \varphi_y(j)\} \quad \text{(Equation 2)}$$

and then take the minimal cost to calculate the distance, such that

$$D(X,Y) = \min_{\varphi} d_{\varphi}(X,Y) \quad \text{(Equation 3)}$$

A smaller distance indicates higher similarity (co-movement) which may imply a stronger transmission, while a larger distance suggests weaker or noisier linkages. In this study, the differenced interest rates are used in the analysis, addressing the non-stationarity issue.

5. The second and more policy-relevant output is the average lead-lag, which quantifies the timing of transmission. By examining the warping path—the mapping of points in one series to the other—the average lead-lag is calculated by the average difference between the two series (Equation 1) with the minimum cost (Stübinger and Walter, 2022; and Zhang *et al*., 2023). Applying the lead-lag calculation, DTW reveals whether changes in query series, such as market and bank interest rates, consistently align with earlier movements in the reference series, policy rate (a lag, suggesting anticipation and indicating transmission from the policy rate) or later movements (a lead, indicating reverse causality or weak transmission). The average lead-lag summarizes these shifts across the entire sample, clearly indicating whether the transmission is immediate, delayed, or even reversed.

6. Together, the distance and lead-lag metrics provide a quantitative assessment to validate monetary policy transmission to the various interest rates. The distance indicates how close the relationship is, while the lead-lag measure shows how fast or delayed the effects are. This dual perspective helps clarify whether the Philippines' monetary policy is effective but slow to transmit, weak despite being timely, or constrained in both strength and speed. In particular, the results are more valid at the lower end of the yield curve, as long-term yields are readily affected by other variables than policy rate changes. Nonetheless, the results provide insights that are essential for shaping policy reforms.

Estimating Sensitivity

7. The next method measures the sensitivity, or degree of pass-through, of interest rates and bond yields to policy rate dynamics during each monetary cycle. The authors define a monetary policy cycle by the following criteria:

- Start month, T_{start}: The month when the first interest-rate cut of a cycle commences after at least one month after the preceding cycle ends

- End month, T_{end}: The month when the last interest-rate cut of a cycle is conducted

Furthermore, the sample excludes cycles that accumulate total rate cuts and rate hikes of less than or equal to 50 bps which could be interpreted as policy refinements. Cycles which occurred before the BSP started implementing its inflation-targeting mandate in 2002 and

during periods of flush liquidity such as in 2005 [5] are also omitted. As such, the exercise identifies three tightening cycles and four easing cycles, excluding the one the Philippines is currently in.

8. After identifying the cycles, the period for calculating sensitivity is set between T_{start}-1 month and T_{end}+3 months.[6] Within each calculation period of a particular cycle, the changes in benchmark interest rates, interbank and retail rates, and sovereign bond yields are tabulated. The percentage adjustment of each rate to changes in the benchmark rate is then calculated by dividing its change by the change in benchmark rate, then multiplied by 100 percent:

$$Sensitivity_X = \left(X_{T_{end}+3} - X_{T_{start}-1}\right) / \left(Y_{T_{end}+3} - Y_{T_{start}-1}\right) \times 100\% \qquad \text{(Equation 4)}$$

where *X* and *Y* are the same as those in Equations 1 - 3, where *X* represents various market and bank interest rates, and *Y* represents the policy rate.

The result is the sensitivity for each rate in a particular cycle. Averages are based on simple average calculation of the sensitivities in each cycle.

III. Results and Interpretations

Monetary Policy Transmission across Cycles

9. Transmission of monetary policy has significantly improved in the Philippines since an IRC was implemented in June 2016. The IRC reform strengthened the signaling role of the BSP's policy rate and anchoring market expectations by establishing a transparent policy band and auction-based liquidity management framework. The introduction of the corridor, forming by the overnight lending facility (OLF) and the overnight deposit facility (ODF), accompanying the main policy instrument, the overnight RRP (the Target RRP now) and the use of auction-based facilities improved the transmission of policy changes to money market rates, and pass-through to other market and bank interest rates.[7]

- The DTW analysis confirms that since the adoption of the IRC, the alignment between market rates—particularly the interbank call loan rate and short-term Treasury yields—and the policy rate has become closer, with shorter lead–lag periods compared with the pre-IRC period (Table 1 and Figure 1). This improvement reflects faster policy transmission through the money market, supported by active liquidity absorption

[5] During the tightening cycle between April 2005 and November 2005, bank interest rates and Treasury bond yields declined, despite the BSP increased policy rates by 0.75 percentage points. According to BSP (2006), the distortion was due to excess liquidity in the banking system and the reduction in risk premium associated with government bonds as a result of the implementation of the Reformed Value Added Tax Law.

[6] According to literature such as Fricke *et al,* (2023), Gregor *et al,* (2019) and Pandolfo and Gödl-Hanisch (2025), banks' funding structures, market power, the degree of financial market development, and central bank communication and independence all influence transmission speed. Hence, it is difficult to pin down the precise number of lags in months of transmission. Based on the lag results from the DTW exercise, lending rate adjustments lag by around three months on average after policy rate changes. Therefore, this study adopts a three-month period after the end of central banks' rate adjustments (T_{end} +3 months) to capture transmission to interest rates.

[7] See BSP (2016), BSP Implements Interest Rate Corridor (IRC) System in Q2 2016, press release: https://www.bsp.gov.ph/SitePages/MediaAndResearch/MediaDisp.aspx?ItemId=3991

operations and the clearer corridor system that anchors short-term rates around the policy rate.

- Meanwhile, the sensitivity measure improved substantially for time deposit rates, and for three-month and one-year bill yields, but remained minimal for average savings deposit rates and average lending rates (Figure 2a).[8] The degree of pass-through to ten-year bond yield fell from 62 percent before the IRC implementation to just 30 percent afterwards. These findings highlight that reforms such as the IRC have strengthened the pass-through of policy rates to banks' funding costs in the interbank market. The role of the policy rates as an anchor for the yield curve has also improved though the transmission to the longer-tenor yields is dependent on the supply-demand dynamics of bonds and long-term growth-inflation outlook. While the limited transmission to the longer-tenor yields is consistent with many other economies, the anchor role of policy rates needs to be enhanced to ensure transmission to the yield curve, and hence other market-dependent credit instruments.

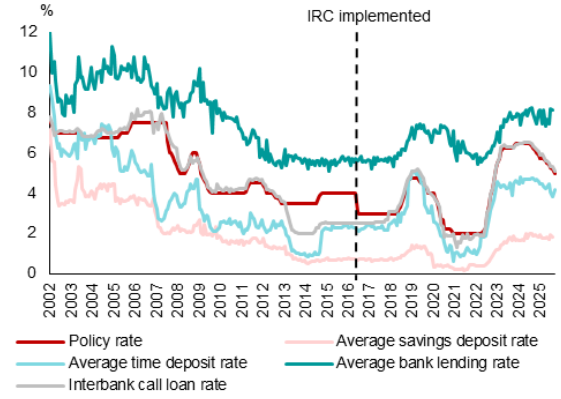
Table 1. DTW Distance and Lead/Lag against Policy Rate Movement

		Jul 2016 – Jul 2025		Feb 2002 – May 2016	
		DTW Distance (percentage points)	Lag (-) / lead (+) (months)	DTW Distance (percentage points)	Lag (-) / lead (+) (months)
Money market rates	**Interbank call loan rate**	10.0	-1.3	16.4	-1.5
Bank deposit and lending rates	**Average savings deposit rate**	11.7	2.8	27.2	-10.9
	Average time deposit rate	19.9	-0.4	22.1	-32.4
	Average lending rate	32.0	-0.3	68.6	-17.7
Bond market rates	**3-month Treasury yield**	21.7	-0.5	48.0	10.8
	1-year Treasury yield	15.6	-2.0	52.0	-13.0
	5-year Treasury yield	24.7	-0.8	54.0	5.3
	10-year Treasury yield	26.6	-2.2	50.2	2.2

Source: BSP, AMRO staff calculations
Note: Philippines' inflation targeting regime started from January 2002, while the IRC started from June 2016.

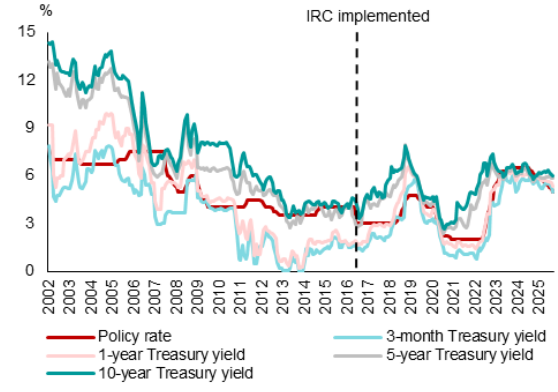
Figure 1. Policy Rate versus Selected Bank Interest Rates and Treasury Yields

a. Interbank Call Loan, Average Savings Deposit and Average Lending Rates



Source: BSP.

b. Treasury Yields

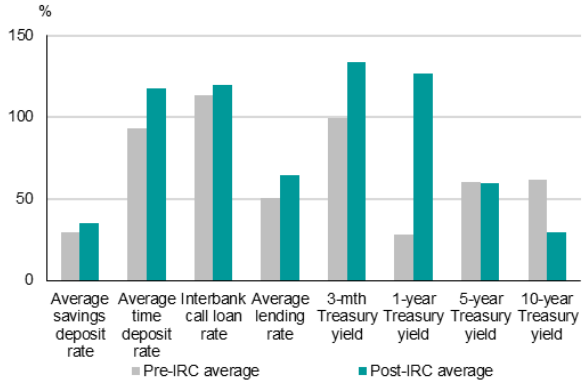


Source: BSP; LSEG

[8] Refer to Appendix for the definitions of selected bank interest rates and bank loans.

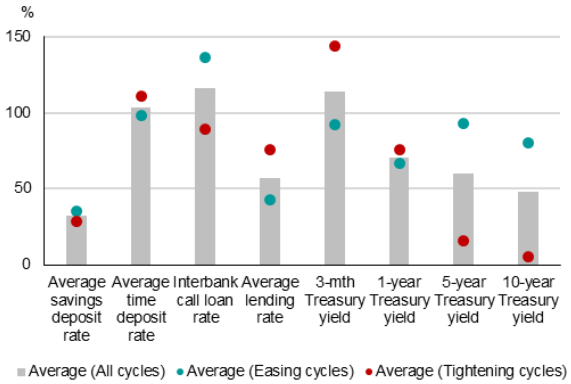
Figure 2. Average Sensitivity of Various Interest Rates and Yields to Policy Rate Changes

a. Before and After IRC Implementation



Source: BSP; LSEG; AMRO staff calculations
Note: The methodology in classifying cycles follows that described in Section II. The pre-IRC average includes sensitivity data for four monetary policy cycles, while the post-IRC average covers data for three monetary policy cycles.

b. By Type of Monetary Cycle



Source: BSP; LSEG; AMRO staff calculations
Note: The methodology in classifying cycles follows that described in Section II. The data is calculated based on four easing cycles and three tightening cycles between 2007 and 2023.

10. Monetary policy transmission showed asymmetries between easing or tightening cycles. Table 2 and Figure 2b summarize the average sensitivity[9] of key bank interest rates and Treasury yields to changes in the policy rate. The asymmetries, except for one-year Treasury yield, were statistically significant according to Wald test.

- The calculations indicate that the savings deposit rate and longer-term bond yields exhibit greater responsiveness to policy adjustments during easing cycles than during tightening cycles. On average, the savings deposit rate moved by 35 percent of the change in the policy rate during easing cycles, compared with only 28 percent in tightening cycles. Similarly for longer-tenor bond yields, the pass-throughs for five-year (93 percent) and ten-year (80 percent) maturities, when the BSP lowered policy rates, showed much stronger responses than those during hiking cycles (16 and 5 percent, respectively).

- Conversely, in tightening cycles, the time deposit rate and lending rate tend to show stronger adjustments. The time deposit rate exhibited an average sensitivity of 111 percent when the BSP raised policy rates, compared with 98 percent during rate cuts. Lending rates also responded stronger in tightening phases, with an average pass-through of 75 percent, versus 43 percent in easing cycles. Shorter-end bill yields showed a similar pattern: three-month and one-year tenors recorded higher sensitivities—144 percent and 76 percent, respectively—during tightening cycles, compared with 92 percent and 67 percent during easing periods.

- Asymmetric monetary transmission for bank interest rate channels between tightening and easing cycles is both observable and statistically significant, and is mainly attributed to banks' business decisions**.** To maximize profits, commercial banks usually focus on boosting revenues while containing funding costs. On the asset side, banks with market power tend to increase loan rates more aggressively when policy rate or

[9] Average sensitivity refers to the second method described in Section II that quantify contemporaneous degree of pass-through across cycles.

funding costs rise, yet cut them more cautiously when these costs fall (Gödl-Hanisch 2022). On the liability side, they exploit deposit stickiness of retail deposits and market concentration to reprice deposits only gradually and selectively, limiting the pass-through of higher market rates to funding costs (Neumark and Sharpe 1992). In this regard, the sensitivity of deposit rates to policy rate dynamics during a tightening cycle is often more muted than during an easing cycle, as adjusting savings deposit and time deposit rates in line with policy rate changes during a tightening cycle will increase lenders' costs of funds. However, the reverse is true for lending rates, which banks would be more willing to raise to widen their net interest margins. Ausubel (1991) argues that reducing loan prices tends to disproportionately attract borrowers who will utilize credit utilization intentions, creating adverse selection and contributing to the "downward rigidity" of lending rates during easing cycles. The asymmetric responses of both lending and deposit rates across policy cycles are consistent with more recent studies, including Cho and Tonghui (2023) and Iorngurum (2025), which highlight how larger banks leverage their market power to influence interest-rate adjustments.[10] Literature also documented similar asymmetries in longer-term bond yields. Hubert and Portier (2025)'s findings on the euro area suggested that investors interpret unexpected monetary easing indicative of a sustained policy stance, leading to stronger responses in the long-end bond yields, whereas unforeseen tightening is perceived as temporary or limited in scope.[11]

In the following sections, the deep dive of the transmission analysis will be discussed.

Table 2. Average Sensitivity of Various Interest Rates and Yields to Policy Rate Changes

			Change (ppts)	Percent change to a change in RRP (%)							
	Start of cycle (T_{start})	End of cycle (T_{end})	Policy rate	Average savings deposit rate	Average time deposit rate	Interbank call loan rate	Average lending rate	3-mth Treasury yield	1-year Treasury yield	5-year Treasury yield	10-year Treasury yield
Easing cycles	Jul-07	Feb-08	-2.50	-8	-12	76	-10	-26	-68	-69	-65
	Dec-08	Nov-09	-2.00	40	108	75	90	89	122	97	59
	Jan-12	Feb-13	-1.00	69	152	252	34	134	48	234	227
	May-19	Nov-20	-2.75	41	145	142	58	172	166	111	100
			Average	**35**	98	**136**	43	92	67	**93**	**80**
Tightening cycles	Jun-08	Sep-08	1.00	19	125	50	90	203	12	-21	26
	May-18	Dec-18	1.75	38	143	115	95	132	122	44	-16
	May-22	Nov-23	4.50	28	64	103	41	96	93	24	5
			Average	28	**111**	89	**75**	**144**	**76**	16	5
All cycles			Average	32	103	116	57	114	71	60	48
Difference between Tightening cycles and Easing cycles			Difference	-7	13	-47	33	51	9	-77	-75
			F-stat	**9.1**	**4.7**	**49.4**	**87.3**	**57.7**	1.2	**74.0**	**72.5**
Current easing cycle (for reference)	Aug-24	Jul-25	-1.25	6	51	96	0	22	35	15	8

Source: BSP; AMRO staff calculations

Note: Among different interest rates or bond yields, the higher average sensitivities between easing cycles and tightening cycles are in red. For the difference in average sensitivities between tightening cycles and easing cycles, F-stat are in bold if the Wald test for the zero difference as the null hypothesis is rejected at 5 percent significance level. Data for the current easing cycle which started in August 2024 is only for reference, as the BSP is expected to ease monetary policy further.

[10] In a study on Thailand, Cho and Tonghui (2023) showed that the long-run pass-through of deposit rates for policy rate increases is less than that of rate cuts, while lending rates displayed "upward asymmetry" where the pass-through for rate hikes is higher than rate reductions. Iorngurum (2025) used a global meta-analysis covering 30 years of research and found that loan rates tend to react more strongly to an upward overnight rate change than to a downward rate change despite heterogeneity across many economies, which is consistent with the hypothesis raised by Ausubel (1991).

[11] Hubert and Portier (2025) showed that the effect of easing monetary policy on medium and long-term bond yields is stronger than the effect of monetary tightening, mainly driven by signals about the future policy path.

Deep Dive on Transmission in Bank Interest Rates

11. Adjustments in deposit rates tend to be weaker and more limited for savings deposits compared with time deposits. According to the DTW analysis, the monetary policy transmission to the average savings deposit rate appears weak, as the savings deposit rate leads the policy rate by about two months. In contrast, the adjustment in the average time deposit rate occurs around half a month (Table 1). Typically, a lag in market rates behind the policy rate reflects the transmission time of monetary policy to market interest rates. However, the leading behavior of savings deposit rates suggests other structural factors at play rather than genuine policy anticipation, given banks' ample and low-cost funding from current and savings accounts (CASA) that reduces their incentive to raise savings deposit rates in line with policy changes.[12] In contrast, the sensitivity of time deposit rates is stronger due to heightened competition among banks for more stable funding. These structural factors also explain the lower sensitivity of the average savings deposit rate at 32 percent, compared with the higher pass-through in the average time deposit rate at 103 percent (Table 2).

12. Lending rates respond faster than deposit rates (within half a month) to policy rate changes, although pass-through remains incomplete at about 57 percent. Specifically, sensitivity is weaker and more delayed for long-term loans because they are often issued at fixed rates according to anecdotal evidence from commercial banks.[13] Analysis of various sectoral loans reveals the disparities between corporate and consumer lending rates, with the latter being stickier (Figure 3).[14] Moreover, the responses of loan rates—particularly for private sector loans—to policy rate changes are larger in the tightening cycles than in the easing cycles. During the tightening cycle in 2022–2023, the responsiveness of the average private corporate interest rate to a policy rate change was around two thirds of the change, while that of small and medium enterprises (SMEs) was lower at 32 percent, mainly due to the lack of bargaining power and alternative funding options (Table 3). However, the sensitivity for consumer loans was even lower at 24 percent, reflecting weaker competition in this segment relative to business loans. Within the consumer loan segment, transmission was highly heterogenous across loan types. For example, the average credit card loan rate was highly responsive—exceeding 150 percent of policy rate changes partly due to higher risk premiums required by banks amid rising interest rates—whereas salary loans and motor vehicle loans exhibited negative sensitivities. Nevertheless, in the current easing cycle, the average lending rate remained unchanged after a year of easing, although it dropped slightly before rebounding in July 2025.

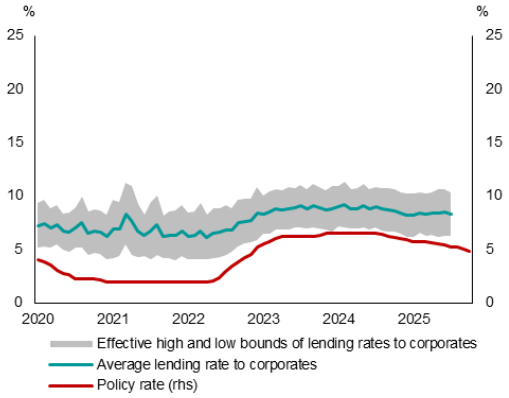
[12] Demand and negotiable order of withdrawal (NOW) deposits and savings deposits constitute on average 75 percent of the deposit base of Philippine banking system.

[13] This study does not extend the analysis to the heterogeneity of lending rate responses across different types of banks due to data limitations. However, Fermo and Lomibao (2023) found strong empirical evidence that banks' lending rate sensitivity to policy rate changes varies according to their characteristics—such as asset size, capitalization, liquidity, and foreign ownership. Fermo and Lomibao (2023) also highlighted notable distinctions between low- and high-quoted lending rates, as well as between domestic and foreign banks.

[14] Similar sensitivity analysis is done on sectoral loans, including loans to government, private corporates, SMEs and individuals, as well as automotive, housing, credit cards, and salary loans. However, interest rate data for these loans from national sources started only from January 2020. Observations on their sensitivities stem from the tightening cycle between May 2022 and November 2023.

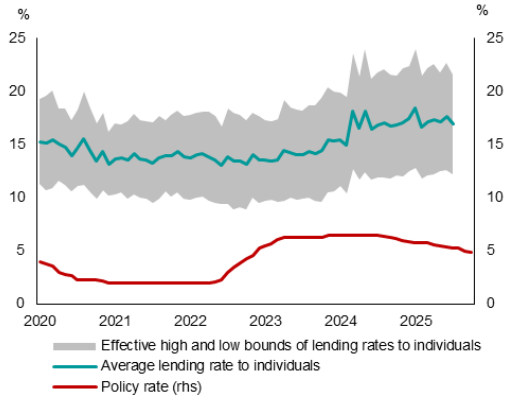
Figure 3. Policy Rate and Average Lending Rates to Corporates and Individuals

a. Average Corporate Lending Rate



Source: BSP.

b. Average Individual Lending Rate



Source: BSP.

Table 3. Average Sensitivity of Various Sectoral Lending Rates

			Change (Ppts)	Percent change to a change in RRP (%)								
	Start of cycle (T_{start})	End of cycle (T_{end})	Policy rate	Average lending rate	Loans to government	Loans to private corporates	Loans to SMEs	Loans to individuals	Motor vehicle loans	Salary loans	Loans to housing	Loans to credit cards
Tightening cycles	May-22	Nov-23	4.50	41	45	67	32	24	-9	-13	26	150
Current easing cycle (for reference)	Aug-24	Jul-25	-1.25	0	45	54	19	-9	26	30	48	-93

Source: BSP; AMRO staff calculations
Note: Data for sectoral lending rates are only available since January 2020, hence only the tightening cycle of 2022-2023 is shown here. Data for the current easing cycle which started in August 2024 is only for reference, as the BSP is expected to ease monetary policy further.

Deep Dive on Transmission in Capital Markets

13. Transmission to the interbank call loan rate has been timely and effective. The DTW analysis in Table 1 reveals that the interbank call loan rate adjusts to policy changes with minimal lag—typically less than two months. Meanwhile, the effectiveness of transmission to the rate was average at 116 percent of policy rate movements, the strongest among the interest rates (Table 2).[15,16] By design, the overnight interbank rate is closely linked and moves with the policy rate. Across the seven monetary cycles, changes in the interbank call loan rate have, on average, mirrored adjustments in the policy rate. As discussed above, the IRC reform launched in June 2016 has better aligned short-term market rates with the BSP's policy rate.

14. In the bond market, transmission remains effective in short-end markets, but delayed and limited in long-end markets. In the Philippines' government bond market, policy rate changes are rapidly reflected in short-term bill yields, which mature in less than five years, within one to two months. However, the pass-through becomes less consistent for

[15] Interbank market rates can deviate more than the policy rate changes due to tight or uneven liquidity conditions and market expectations of future policy adjustments. See Linzert and Schmidt (2008).
[16] The interbank lending market is mainly dominated by larger banks while the BSP continues to enhance market liquidity and broaden participation.

longer maturity of ten years, taking above two months. The degree of pass-through also tends to diminish as bond maturity lengthens, particularly during a tightening cycle (Figure 2b). Although long-end bond yields may be influenced by other factors, [17] their weak responsiveness to policy rate changes still reflects the lack of deep liquidity in longer-term capital markets—an element essential for strengthening the price-signaling mechanism to investors when the BSP raises the policy rate. The effectiveness of policy rate changes on real yields in the Philippines is constrained by the low transaction volumes of government bonds and limited investor diversity.

IV. Cross-Country Comparisons

15. The sensitivities of the Philippines' bank interest rates to policy rate adjustments were comparable to ASEAN-4 emerging markets. In terms of the savings deposit rate, time deposit rate and interbank loan rate, the patterns in pass-through effects from respective benchmark interest rates are quite similar (Figure 4). Across the economies, corresponding interbank loan rates followed policy rates closely, resulting in almost a one-to-one (100 percent) adjustment. The transmissions to average savings deposit rates were generally below 50 percent for all ASEAN-4 economies with easing cycle sensitives always higher than tightening cycles, reflecting deep and cheap CASA pools in their banking systems. Average lending rates of the Philippines, Indonesia and Thailand responded by around 50 percent of policy rate changes. In contrast, Malaysia's average lending rate was more sensitive to the changes in Bank Negara Malaysia's monetary policy stance likely due to its financial market depth.[18] A deeper financial market could increase competition to bank credit through a broader pool of alternative financing sources and allow more responsiveness in interest rates, especially lending rates (Singh *et al.* 2008).

16. While the Philippines' bond yields showed comparable sensitivities to other regional counterparts, the transmission was not as sensitive beyond the one-year maturity during tightening cycles. The trend of diminishing sensitivity with longer tenors was evident across ASEAN-4 economies (Figure 4). However, the pass-through were observed to be uneven between easing cycles and tightening cycles in the Philippines, with low responsiveness in the five-year and ten-year yields, especially when the BSP raised rates. This can be partly attributed to low liquidity and narrow investor base in those markets. Trading volumes for Philippine bonds lag far behind regional peers,[19] and about 75 percent of local currency debt is concentrated in banks and contractual savings institutions, with foreign investors holding only five percent as the end of June 2025.[20] By contrast, its regional counterparts have more diverse investor profiles. In Malaysia, foreign investors are one of the major holders of government bonds, making up 21 percent. Similarly for Indonesia, nonresidents are significantly investors along with Bank Indonesia. Resident retail investors also play an important part in trading Thai government bonds. The diversity of investor bases

[17] The long-term government bond yield is a function of real yields, growth, fiscal and inflation expectations of the domestic economy, term premium and country risk premium (Abbas and Togo, 2025; Yu, 2024, Cizkowicz *et al.*, 2025), distorting the direct transmission from policy rates through short-term rates. Sometimes, movements in bond yields from major economies such as the US, could also influence the Philippines' yields (Tsang *et al*. 2021).

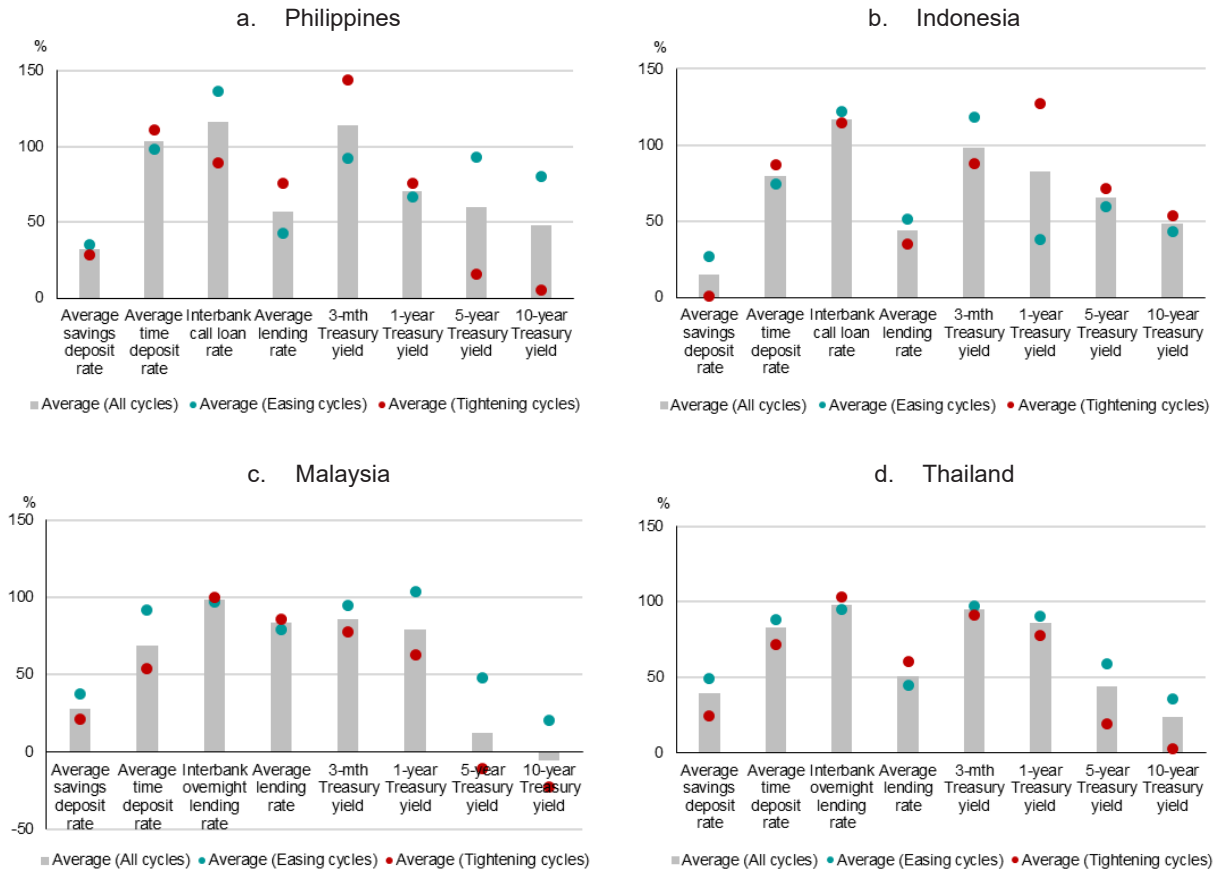
[18] According to IMF's Financial Market Depth (FMD) Index, Malaysia score was the highest among the ASEAN-4 economies in 2021 at 0.93. The scores for the Philippines, Indonesia and Thailand were 0.57, 0.24 and 0.75, respectively. The FMD index is calculated based on data on stock market capitalization to GDP, stocks traded to GDP, international debt securities of government to GDP and total debt securities of financial corporations to GDP and total debt securities of nonfinancial corporations to GDP. Latest data is up to 2021.

[19] According to ADB AsianBondsOnline data, 2024 transaction volumes in the secondary market of Philippine government bonds amounted to USD171 billion, lower than the USD756 billion for Indonesia and USD384 billion for Singapore.

[20] See **ADB (2025**).

in these economies has kept the share of banks and contractual savings institutions to between 41 and 72 percent, as opposed to the Philippines' 75 percent.

Figure 4. ASEAN-4: Average Sensitivity of Various Interest Rates and Yields to Changes in Policy Rates



Source: National authorities; AMRO staff calculations
Note: The methodology in classifying cycles follows that described in Section II. For the Philippines, the data covered are calculated based on four easing cycles (ECs) and three tightening cycles (TCs) from July 2007. The data for Indonesia covers five ECs and four TCs since May 2006; for Malaysia, data covers two ECs and three TCs since November 2005; for Thailand, data covers five ECs and three TCs since December 2001. Calculations exclude years (2000 and 2005 respectively) when Thailand and Indonesia implemented inflation-targeting regimes.,

V. Conclusion and Policy Implications

17. Monetary policy transmission in the Philippines has improved since the IRC was introduced but is still assessed to be delayed and limited, pointing to a need for further reforms. While the IRC adoption in 2016 has improved pass-through in the money market, the transmission to savings deposit rates as well as bank lending rates for SME and consumer loans remains limited, constraining the impact of policy rate changes on credit conditions, investment, and output. Specifically, our analysis highlights a need to enhance interest rate pass-through to lending rates, particularly in consumer and SME loan segments. Moreover, the dynamics in policy rates are unlikely to influence real bond yields effectively when the secondary market for Treasuries remains shallow and lacks sufficient trading activity, hindering the price discovery of bonds. Reforms on long-end bond markets are hence warranted.

18. The authorities could reinforce the effectiveness of the bank credit channel of monetary policy transmission by further strengthening credit information systems. Philippine banks issued certain loans, particularly for auto and mortgage, at fixed rates, because of the limited availability of reliable benchmarks for pricing long-term floating-rate loans.[21] Some unsecured consumer loans and SME loans are also offered on a fixed-rate basis, at least during the initial years of the loan term. Enhanced credit information through the use of alternative data can mitigate information asymmetry (Alvarez-Botas and Gonzalez 2024), thereby improving loan rate pricing by allowing lenders to gauge risk premiums more accurately. As lenders gain better visibility into borrower risk profiles, loan pricing becomes more competitive, especially for consumer and MSME segments. Over time, this could encourage more banks to offer floating-rate loan products and enhance their repricing strategies, allowing lending rates to respond more effectively to changes in monetary policy. To this end, the BSP launched the Credit Risk Database Philippines Web-based Scoring System (CRDPh) in August 2025, which provides probability-of-default estimates and credit scores based on specific borrower attributes. The initiative supports more accurate credit risk assessment of MSMEs, reduces excessive reliance on collateral and broadens financial access. Going forward, the development of credit information systems should move beyond data collection and toward active integration into banks' lending practices, ensuring that credit scoring is fully utilized in loan pricing and risk management.

19. On the capital market channel, the authorities should continue reforms to deepen liquidity by attracting both domestic and foreign investors.[22] A deeper financial market could increase competition to bank credit through a broader pool of alternative financing sources and form more reliable long-term yield benchmarks, allowing more responsiveness in interest rates, especially lending rates. The Bureau of Treasury, BSP, and Department of Finance have already streamlined tax refunds to non-resident investors, adopted global settlement standards, and lowered reserve requirements to improve monetary transmission. Efforts to include Philippine bonds in the JP Morgan EM Bond Index are also expected to attract more foreign investors and strengthen investor diversity.[23] These initiatives aim to increase foreign participation in government securities, which now remains below regional peers. Further reforms should focus on channeling more domestic savings, such as the Personal Equity and Retirement Account (PERA), and Government-Owned and -Controlled Corporations (GOCCs) into capital markets,[24] syncing regulations across investment schemes such as unit investment trust funds (UITFs) and mutual funds,[25] and lowering withholding taxes on government securities to attract a wider range of investors**.**

20. Deeper regional financial integration could enhance participation by ASEAN+3 investors in the Philippines' domestic capital market. Linking capital markets through

[21] There is no official statistics regarding the share of fixed- and floating-rate loans in the Philippine Banking System. However, according to the industry information, auto loans are largely fixed rate, while mortgages are fixed for the first five years, then repriced.

[22] The authorities should also closely monitor the financial stability risks associated with high foreign holdings in local currency bonds. While greater foreign investor participation can dampen bond yields in emerging markets, studies have shown that it could also amplify financial volatility through sudden stops in capital flows (Beirne *et al*, 2024; Ho, 2022). To mitigate currency risks faced by overseas investors and potential capital outflows during periods of stress, efforts in enhancing foreign exchange hedging instruments should be strengthened.

[23] The Bureau of Treasury aims to increase foreign participation in government securities from the current 5 percent to 25 percent, comparable to regional peers' levels.

[24] The government approval in August 2025, allowing financial institutions access to PERA data, is a move toward the right direction in channeling more funds into domestic capital markets while tailoring to investor risk appetite. In this regard, it makes sense for authorities to enhance the PERA take-up rate.

[25] Currently, unit investment trust funds (UITFs) and mutual funds are classified differently in the Philippines, as opposed to other regional jurisdictions, and are regulated by different authorities. The imbalanced treatment of these investment vehicles has led to differentiated development, with UITFs outpacing mutual funds.

digital finance platforms offers several benefits, including greater bond market liquidity, lower transaction costs, a wider range of investment options for international investors, more diversified funding sources for governments and corporates, and strengthened financial stability. The Philippines could facilitate cross-border bond trading by connecting the Philippine Stock Exchange (PSE)[26] with other ASEAN+3 exchanges under the Asian Bond Market Initiative (ABMI), thereby attracting regional savings and broadening the investor base for government securities. To further advance regional bond market integration, the ABMI has recently established the Digital Market Forum, which aims to address regulatory divergences and promote the harmonization of legal and regulatory frameworks for digital assets across the region. Active collaboration with this forum would help the Philippines to foster a more investor-friendly environment and deepen liquidity in its domestic bond market.

[26] PSE acquired Philippine Dealing System Holdings Corp. (PDS) in December 2024 and now owns more than 90 percent stake. PDS owns the main bond exchange operator, Philippine Dealing and Exchange Corp. (PDEX).

Appendix

1. Definitions of Selected Bank Interest Rates

Interest rate	Definition
Target Reverse Repurchase (RRP) rate	BSP's key policy rate. It is the interest rate at which the BSP borrows from banks to maintain price stability. By adjusting the key policy rate, the BSP gives the market a signal on the general level of interest rates. Prior to September 8, 2023, the policy rate was the overnight RRP rate.
Interbank call loan (ICBL) rate	The overnight, unsecured lending rate between banks, based on the money lent between financial institutions. This rate is influenced by the overnight RRP rate and acts as a benchmark for short-term market rates, helping to anchor them to the central bank's monetary policy goals.
Average savings deposit rate	The weighted average interest rate that a bank pays depositors for the use of their money for the period that the money is on deposit. It is based on the annual percentage equivalent of the 10 sample commercial banks' actual monthly interest expenses on peso-savings deposits to the total outstanding levels of these deposits.
Average time deposit rate	The interest rate that a financial institution pays depositors for interest-bearing deposits with fixed-maturity dates as evidenced by a certificate of deposit. It represents the average of rates for maturities below one year and above one year.
Average bank lending rate	The weighted average interest rate charged by commercial banks on loans granted during a given period. It is based on the annual percentage equivalent of the 10 sample commercial banks' actual monthly interest income on their peso-denominated loans to the total outstanding levels of their peso-denominated loans, bills discounted, mortgage contract receivables and restructured loans.

2. Definitions of Selected Bank Loans

Bank loan	Definition
Loans to government	Refer to the amortized cost of loans granted to the national government, local government units, and government-owned and controlled corporations.
Loans to private corporates	Refer to the amortized cost of loans granted to private corporations, including single proprietorships, partnerships, and cooperatives.
Loans to small and medium enterprises (SMEs)	Refer to the amortized cost of loans granted to small and medium enterprises, as defined in the Manual of Regulations for Banks.

Loans to individuals	Refer to the amortized cost of loans granted to individuals for personal use purposes. This includes motor vehicle loans, salary loans, loans to housing, loans to credit cards, etc..
Motor vehicle loans	Refer to the amortized cost of loans granted to individuals for the acquisition of motorized land transportation vehicles, primarily for personal use.
Salary loans	Refer to the amortized cost of unsecured loans granted to individuals for a broad range of consumption purposes, mainly on the basis of regular salary, pension, or other fixed compensation, where repayment would come from such future cash flows, either through salary deductions, debits from the borrower's deposit account, mobile payments, pay-through collections, over-the-counter payments or other type of payment agreed upon by the borrower and the lender.
Loans to housing	Refer to the amortized cost of loans granted to individuals for housing purposes, which may be for the acquisition, construction, or improvement of a residential unit.
Loans to credit cards	Refer to the amortized cost of loans granted to credit card holders arising from purchases of goods and services, cash advances, annual membership/renewal fees, as well as interest, penalties, insurance fees, processing/service fees, and other charges.

Source: BSP; Haver Analytics; AMRO staff compilation.

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