

Indonesia: Global Spillover and Policy Response

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Introduction

Since the global financial crisis, emerging economies have been subjected to a number of external shocks from global economic and financial market volatility. Global economic recovery has been slow and uneven, causing emerging economies to resort to domestic demand to compensate for declining exports in order to support growth. With declining global commodity prices, these external shocks to growth are even more challenging for commodity-exporting countries. Recently, economic slowdown in emerging economies, notably China, has become apparent and has spilled over to other countries, both emerging and advanced countries, thus putting further pressures on global economic recovery. The global spillovers to emerging countries have become even more challenging with increasing volatility in the global financial market emanating from global economic imbalances and divergences in monetary policy across countries. While other major advanced economies, including Europe and Japan, continue to adopt quantitative monetary easing, the U.S. Federal Reserve announced in mid-2013 its plan for a monetary normalization process, thus putting even higher risks of capital reversals and exchange rate pressures on emerging countries. The recent Chinese policy to further liberalize its foreign exchange system and the internationalization of the renminbi as a special drawing rights (SDR) reserve currency added another factor for increasing volatility in the global financial market.

These spillovers from global economic and financial market volatility have placed many emerging countries in a dilemma between maintaining macroeconomic and financial system stability and managing the negative impacts to economic growth. Designing policy response to mitigate these complex global spillovers is challenging both in terms of policy instruments and in terms of optimal configuration. From a central bank's perspective, the challenge is to maintain its independence in setting an interest rate policy for domestic price stability and supporting economic growth, while taking into account the

pressures from exchange rate and capital flow volatility. While exchange rate flexibility is an external shock absorber, market irrationality may require foreign exchange intervention and some forms of capital flow management to avert excessive exchange rate volatility. Macroprudential measures have also been implemented in many emerging countries to safeguard the financial system stability from these external shocks and to strengthen the effectiveness of monetary policy. Moreover, fiscal policy and structural reforms are necessary to improve the investment climate, productivity, and competitiveness of the real sectors, while creating fiscal space for stimulating economic growth.

This paper describes Indonesia's experiences in designing and implementing a mix of policy responses to mitigate global spillovers, with a focus on the period following the 2013 taper tantrum. Three particular issues are discussed: (1) the setting of interest rates for managing macroeconomic and financial system stability, supported by exchange rate flexibility and capital flow management, in response to the policy trilemma arising from global spillovers; (2) the efficacy of macroprudential measures in safeguarding financial system stability and reinforcing the lending channel of monetary policy transmission on the back of volatile capital flows and an underdeveloped financial market; and (3) the importance of financial market deepening in smoothing out the transmission of global shocks to domestic monetary and financial system stability.

The paper concludes with a discussion about monetary and fiscal policy coordination, and argues for structural reforms to further strengthen macroeconomic stability in the short term, and for a reform agenda to promote sustainable and balanced growth in the medium term. To set the stage for these policy responses in Indonesia, following a discussion on the nature and channels of global spillover to emerging markets, the paper reviews the Indonesian macroeconomic performance since the global crisis.

Global Spillover to Emerging Markets

The following three aspects of global economic and financial market development warrant special attention, as they have significant impacts on the economy and policy responses of emerging countries. First, global economic recovery has been relatively slow and uneven. In the advanced countries, though U.S. economic recovery is progressing, economic growth in the euro area and Japan remains sluggish. Among emerging economies, the slowdown in growth becomes more apparent in China and then spills over to other emerging countries, notably Asia. With global economic recovery supported only by one engine, i.e., recovery in the United States, a slower than expected increase in world trade volume limits external sources of growth. Under such an unfavorable external

environment, emerging countries must resort to domestic demand to support their economic growth to compensate for the weakening exports.

Second, global commodity prices continue to fall with weak demand, new low-cost mineral productions, and geopolitical tensions. The end of the commodity supercycle added significant negative trade channel impacts to the export and growth performances of many emerging economies. The impact is more severe in commodity-exporting countries, giving rise to macroeconomic stability risks with weakening current account balances. The indirect impact is also being felt by manufacturing-exporting countries, which face slower than expected global economic recovery. Thus, the trade channel of global spillovers is putting constraints on the ability of emerging countries to push their domestic demand up to support economic growth, without facing further worsening of current account balances and macroeconomic stability risks.

Third, global financial markets have been unprecedentedly volatile with the divergence of monetary policies across countries. In the period of ultra-quantitative monetary policy easing by advanced economies—notably in the United States, the euro area, and Japan—the financial channel of global excess liquidity has flushed huge capital inflows to emerging economies, pushing significant exchange rate appreciation in these countries, notably during the period from 2009 to mid-2013. Nonetheless, the 2013 taper tantrum has reversed the conditions and increased risk sentiment in global financial markets. A combination of capital flow reversals, strengthening of the U.S. dollar, and risk-off/risk-on market behavior put serious pressures on the exchange rates and external vulnerability of many emerging countries. The pressures on the exchange rate and market volatility have been accentuated by continuous monetary easing in the euro area and Japan, as well as divergence in monetary responses among other advanced economies, giving rise to the debate of “currency war” among policymakers.

The extent to which these global spillovers impact emerging countries depends on their respective economic fundamentals and policy responses. In general, the impact will be relatively contained in countries with strong economic fundamentals in the form of low inflation, a manageable current account balance, a sustainable fiscal position, and a more diversified economic structure. Sound macroeconomic policy through preemptive monetary and prudent fiscal policies will also strengthen the resilience in withstanding the global spillovers. While monetary policy in many emerging countries needs to focus on maintaining macroeconomic and financial stability, fiscal policy can play a role in creating space to stimulate growth where fiscal sustainability is not an issue. Moreover, emerging countries need to accelerate structural reforms in

key areas of real sectors, fiscal policy, and financial market deepening to better mitigate external shocks, and to better manage macroeconomic stability and economic growth.

Nonetheless, the complexity of the spillover effects—such as exchange rate pressures, capital reversals, asset price volatility, increasing risk premiums, and liquidity and credit risks—requires policymakers to optimize their policy mix. In most cases, relying solely on the interest rate response will not be sufficient. This is particularly true in emerging countries, where the shallowness of the domestic financial market often causes excessive volatility in the market reaction and inhibits an effective monetary transmission mechanism. Thus, to ensure macroeconomic and financial stability, the interest rate response needs to be complemented by greater exchange rate flexibility, capital flow management, and macroprudential measures. Crisis prevention and resolution management is important to build capability in early warning exercise and coordinated policy responses across authorities. Building lines of defense in the form of adequate foreign reserves, as well as international and regional financial safety arrangements, is also needed to raise the bar for a country's resilience against global spillovers.

Indonesia: The Macroeconomic Context

Indonesia is a small open economy that has a domestic-oriented economic structure, has a free foreign exchange system, and is a commodity exporter. About 65 percent of the economy comes from consumption, 32 percent from investment, and 21 percent from exports. In one aspect, this economic structure makes Indonesia more resilient against external shocks. Nonetheless, as a commodity-exporting country, Indonesia's exports rely significantly on primary commodities such as oil and gas, palm oil, rubber, coal, tin, and other minerals, and are exposed to global commodity price cycles. The implication is that managing a sustainable current account is very important not only for ensuring macroeconomic stability but also for smoothing Indonesia's growth cycle against the impacts of the global commodity cycle. Moreover, with a free foreign exchange system, global financial markets and capital flows have direct impacts on Indonesia's monetary and financial system. While capital inflows are important for financing external position, managing their volatility is key for supporting exchange rate stability and strengthening monetary independence in achieving domestic economic objectives (Warjiyo 2013a).

Notwithstanding the strains of external shocks, the Indonesian economy has been resilient and continues to record robust growth with macroeconomic and financial stability well maintained. The experience from the 1997/98 Asia

crisis has taught Indonesia the hard lesson that strengthening domestic economic fundamentals with sound macroeconomic and financial system policies is vital. A law was introduced that limits the budget deficit of both central and local government to a maximum of 3 percent of gross domestic product (GDP). A new central bank law was issued that gives independence and a clear mandate of price stability to Bank Indonesia. Moreover, financial restructuring has resulted in highly capitalized banks with sound risk management and governance. Overall, these reforms put Indonesia in a much better position to withstand the 2008 global crisis than it was in during 1997/98. In fact, in the period from 2009 to 2011, Indonesia benefited from high global commodity prices and huge capital inflows that had resulted in high growth, low inflation, current account surplus, and exchange rate appreciation. Nonetheless, the end of the high global commodity prices cycle in 2011 and the subsequent normalization process of U.S. monetary policy have put strains on Indonesia's external sector, giving rise to the current account deficit, volatile capital flows, and exchange rate pressures, which required policy adjustments to manage macroeconomic stability and to support economic growth.

Indonesia has recorded stable and relatively high economic growth. In 2009, for example, Indonesia was among the few countries that recorded economic growth of 4.5 percent while other countries were under recession. GDP growth averaged relatively high, at 6.3 percent, during the period from 2010–12, but the slowdown in China and the decline in commodity prices pushed down Indonesia's growth to a moderate level, at an average of 5.2 percent in 2013–15 (Table 1). These favorable growth performances were mostly driven by domestic consumption and investment. Exports also showed strong performance in 2010 and 2011, with growth of 15.3 percent and 13.6 percent, respectively, but the slowdown in China and the decline in commodity prices have been putting pressures on Indonesian export performance since 2012. Overall, the strong domestic consumption and investment have been able to compensate for the declining export performance, supporting Indonesia's economic growth. Indonesia's growth recorded at 4.8 percent in 2015 and is forecasted to accelerate to 5.2–5.6 percent in 2016, supported by fiscal stimulus and structural reforms as well as continued global economic recovery.

The strong Indonesian economic performance has also been achieved with sound macroeconomic and financial system stability. On price stability, except in the event of increases in domestically subsidized fuel price and other administrative prices, consumer price index (CPI) inflation has been under control within the target ranges. It was on the downward trend from 6.9 percent at the end of 2010 to 3.8 percent in 2011 and 4.3 percent in 2012, within its target range

TABLE 1
Indonesia: Selected Macroeconomic Indicators, 2009–15

	2009	2010	2011	2012	2013	2014	2015
GDP growth (%)	4.63	6.22	6.49	6.26	5.78	5.02	4.79
Consumption (%)	6.20	4.14	4.51	4.77	5.23	4.82	4.92
Investment (%)	3.29	8.48	8.77	9.25	4.71	4.12	5.07
Export (%)	-9.69	15.27	13.65	2.00	5.30	1.02	-1.97
Import (%)	-14.98	17.34	13.34	6.66	1.21	2.19	-5.84
CPI inflation (%)	2.78	6.96	3.79	4.30	8.38	8.36	3.35
Core inflation (%)	4.28	4.28	4.34	4.40	4.98	4.93	3.95
Volatile food prices (%)	3.95	17.74	3.37	5.68	11.02	10.88	4.84
Administered prices (%)	-3.26	5.40	2.78	2.66	2.91	17.57	0.39
Balance of payment (\$m)	12,506	30,343	11,857	215	-7,325	15,249	-1,098
Current account (\$m)	10,628	5,144	1,685	-24,418	-29,115	-26,705	-17,661
% of GDP	2.00	0.72	0.20	-2.80	-3.20	-3.00	-2.05
Financial account (\$m)	4,852	26,526	13,636	24,909	22,010	44,926	16,774
Foreign direct investment	2,628	11,106	11,528	13,716	12,295	14,656	9,503
Portfolio investment	10,336	13,202	3,806	9,206	10,875	26,066	16,749
Other investment	-8,208	2,262	-1,801	1,922	-871	4,332	-9,514
Exchange rate (Rp/\$)	9,447	9,036	9,113	9,715	12,250	12,135	13,395
% change	14.16	4.35	-0.85	-6.61	-26.09	0.94	-10.338
Foreign exchange reserves (\$m)	66,165	96,207	110,123	112,781	99,387	111,862	105,931
Month of import (cif)	8.59	8.93	9.34	9.62	9.01	6.60	7.40
Interest rates							
BI (policy) rate (%)	6.50	6.50	6.00	5.75	7.25	7.75	7.50
Deposit rate (%)	6.87	6.69	6.35	5.85	7.92	8.58	7.48
Lending rate (%)	13.69	12.75	12.18	11.50	12.12	12.79	12.58
Banking							
CAR (%)	17.42	17.18	16.05	17.43	18.13	19.57	20.43
Deposit growth (%)	13.76	20.45	18.72	15.61	13.11	12.17	7.26
Lending growth (%)	10.12	23.28	24.67	23.13	21.39	11.56	10.45
NPLs (% , gross)	3.40	3.07	2.23	2.01	1.82	2.23	2.49

of 4.5 ± 1 percent. Core inflation was kept under control below 4.5 percent during that period, while the impact of global commodity prices was muted by Bank Indonesia letting the rupiah appreciate, benefiting from huge capital inflows at the time. However, the increases of domestic fuel prices in 2013 drove CPI inflation to 8.4 percent in 2013, exceeding the target range of 4.5 ± 1 percent. The same happened in 2014 as a result of a reform to the subsidy policy, which led to a domestic fuel price increase and caused CPI inflation to increase to 8.4 percent. Since then, CPI inflation has been kept under control. It declined to 3.4 percent at the end of 2015, within its target range of 4.0 ± 1 percent. Considering the well-anchored inflation expectation, sluggish domestic demand, and muted imported inflation, CPI inflation is forecasted to also be kept under control at around 4 percent in 2016, within its target range of 4.0 ± 1 percent.

Volatile global commodity prices and capital flows have also affected the performance of Indonesia's external sector. During the period from 2009 to mid-2011, Indonesia enjoyed current account surpluses, which peaked at US\$10.6 billion (2 percent of GDP) in 2009, benefiting from both strong external demand and high commodity prices. At the same time, Indonesia also enjoyed huge capital inflows, especially in the forms of foreign direct investment and portfolio investments, buoyed by global excess liquidity from quantitative monetary easing in the advanced countries (Warjiyo 2013a). The surplus in the capital account peaked at US\$26.5 billion in 2010 before it decelerated to US\$13.6 billion in 2011 due to the Greek crisis. As a result, Indonesia enjoyed sizable surpluses in the balance of payments during this period. Foreign exchange reserves increased from a mere US\$66.2 billion in 2009 to US\$110.1 billion in 2011.

The external-sector condition was then reversed and became challenging with weakening external demand and falling global commodity prices. The current account turned into a large deficit of US\$24.4 billion (2.8 percent of GDP) in 2012, which widened further to US\$29.1 billion (3.2 percent of GDP) in 2013. Strong macroeconomic policy adjustments through both monetary policy tightening by the central bank and prudent fiscal policy by the government have been able to narrow the current account deficit to a more sustainable level of around 2.5–3.0 percent of GDP. In fact, the deficit came down faster than expected to US\$26.7 billion (3.0 percent of GDP) in 2014 and US\$17.7 billion (2.0 percent of GDP) in 2015. The strong macroeconomic policy adjustments are also vital for securing market confidence. Capital inflows remained high at US\$24.9 billion in 2012, leading foreign reserves to further increase to US\$112.8 billion.

However, huge capital reversals of portfolio investments following the taper tantrum in 2013 have caused a decline in capital inflows to US\$22.0 billion and forced Bank Indonesia to intervene to stabilize the exchange rate, causing foreign reserves to decline to US\$99.4 billion. The market confidence was quickly restored as Bank Indonesia aggressively responded with “stability over growth policy” through interest rate and other measures (will be discussed in the next session), increasing the capital account surplus to a record high of US\$43.6 billion and foreign reserves to US\$111.9 billion in 2014. Nonetheless, the planned increase of the federal funds rate and market reaction to the Fed's communication has once again intensified the external pressures. Even though both inflation and the current account deficit have been kept under control, global financial market uncertainty has caused increasing volatility of capital inflows to Indonesia and put pressures on the exchange rate and monetary stability.

The dynamics of balance of payments as explained above, including the volatile capital flows, have affected exchange rate movements, thus creating risks to

both monetary and financial system stability. As such, the exchange rate appreciated strongly up to August 2011 with the surpluses in both current and capital accounts, but it has been under pressure since then, with capital reversals being impacted by the worsening of the European crisis. Subsequently, the exchange rate was heavily under pressure following the taper tantrum. It depreciated by 26.1 percent in 2013 before it appreciated as market confidence resumed in 2014. In this regard, Bank Indonesia continues to adopt a flexible exchange rate policy as a tool to absorb external shocks. In most cases, the exchange rate is determined through market mechanism, although in some cases Bank Indonesia may intervene to stabilize the exchange rate along its fundamental level. Nonetheless, maintaining exchange rate flexibility is a daunting challenge in such a volatile global environment, especially in assessing its consistency with macroeconomic outlook and maintaining its stability.

Indonesia's resilience in withstanding global spillovers is not only attributed to sound macroeconomic policies but also supported by a strong financial system. Overall, financial system stability has remained solid, underpinned by a resilient banking system and relatively stable financial markets. The banking industry is well capitalized, with credit, liquidity, and market risks being well mitigated. In September 2015, the capital adequacy ratio (CAR) remained well above the 8 percent minimum threshold at 20.4 percent, while nonperforming loans (NPL) were low and stable at 2.5 percent (gross) or 1.3 percent (net). On the intermediation function, credit growth accelerated to 10.5 percent (yoy) while deposit growth was recorded at 7.3 percent (yoy). Looking ahead, credit growth is predicted to continue accelerating to 12–14 percent in 2016, in line with the increase in economic activity and looser macroprudential policy stance adopted by Bank Indonesia.

Monetary and Macprudential Policy Mix

For small open economies, global spillovers give rise to the policy trilemma of setting the optimal interest rate to satisfy the domestic policy objective while keeping the stability of exchange rate and free flows of capital. Theoretically, the interest rate policy needs to be geared toward maintaining price stability, while taking into account the impacts on economic growth. To mitigate global spillovers of volatile capital flows, exchange rate flexibility can act as a shock absorber. However, excessive exchange rate movements can undermine the effectiveness of the interest rate in achieving price stability, both because of exchange rate pass-through to inflation and because of real exchange rate effect on growth. Furthermore, market overreaction and structural rigidities can cause unnecessary exchange rate overshooting and volatility that may hamper

overall monetary and financial system stability. Foreign exchange intervention to avert excessive volatility of the exchange rate can be an option.

Volatility in capital flows under a free foreign exchange system also complicates the interest rate response for achieving domestic economic objectives. This is evidenced in Indonesia where capital flows are driven more by “push factors” than “pull factors” (Indawan et al. 2013). The functioning of the monetary policy transmission mechanism is directly affected by volatile capital flows, particularly through their impact on domestic excess liquidity in the financial system (Warjiyo 2014b, 2015). Under such conditions, interest rate policy alone would not be sufficient for an effective monetary policy transmission. An increase in interest rate to manage excess liquidity, for instance, will further induce more capital inflows and liquidity expansion. Bank lending will also be less sensitive to interest rate under excess liquidity environment. Furthermore, volatility in capital flows may cause bank lending to be more procyclical to global financial markets than to domestic economic activity. Some forms of capital flow management can strengthen the effectiveness of interest rate policy.

In the case of Indonesia, this policy trilemma is addressed through a mix of monetary and macroprudential policies, consisting of interest rate response complemented by exchange rate flexibility, capital flow management, and macroprudential measures (Warjiyo 2013c, 2014e). The interest rate policy, consistent with the inflation-targeting framework that Indonesia implemented since 2005, is the main instrument for anchoring inflation expectations and forecasts within the targeted range (Warjiyo 2014a). The exchange rate policy is geared toward maintaining stability along its fundamental path. Capital flow management is also implemented with the objective of dampening excessive short-term volatility in these flows and stabilizing the exchange rate. At the same time, the macroprudential measures aim to manage procyclicality and excessive lending in specific sectors. Overall, the policy mix is intended to reinforce the effectiveness of all monetary transmission channels. Clear communication; policy coordination with the government on inflation, fiscal, and structural reforms; and central bank cooperation on strengthening regional financial arrangements also play a crucial role.

The implementation of this policy mix was somewhat straightforward during the period from 2009 to 2012, even though Indonesia was subjected to huge capital inflows. During that period, there was no underpinning reason for an interest rate response, as domestic inflation was under control even though economic growth was approaching the potential output level. In addition, as mentioned above, an increase in interest rate would further induce capital inflows and overshoot exchange rate appreciation. For this reason, capital flow

management was introduced through a holding period for investing in central bank bills. At the same time, macroprudential measures were also implemented through increasing reserve requirement and introducing a loan-to-value (LTV) ratio to automotive and property lending. Taken together, these measures are found to be effective in smoothing short-term capital inflows and managing liquidity and bank lending.

The situation has become challenging since the taper tantrum in mid-2013. Capital reversals were large in the aftermath of the taper tantrum, and subsequently capital flows have been increasingly volatile. The complexity of policy responses was also attributed to domestic problems of high inflation following the government policy to increase the subsidized fuel price. The current account deficit has also widened to an unsustainable level due to combining factors of global commodity price plunge and strong domestic demand. Confronted with these challenges, Bank Indonesia strengthened its monetary and macroprudential policy mix. The following sections discuss in detail each of the instruments in the policy mix from the taper tantrum to date.

Interest Rate Policy

Bank Indonesia was one of the first central banks to raise its policy rate in the aftermath of the taper tantrum in May 2013. Bank Indonesia started raising its policy rate by 25 basis points (bps) in June 2013. The policy rate was then aggressively increased by 50 bps in July, another 50 bps in August, and another 25 bps in September 2013. After pausing in October 2013, Bank Indonesia again raised the policy rate by 25 bps in November 2013. In total, the policy rate was raised by 175 bps to 7.50 percent within six months. Bank Indonesia has kept the policy rate on hold since then.

The primary objective of this aggressive interest rate response was to preemptively anchor inflation expectations which initially rose due to food price shocks. Another aim was to contain the second-round impacts of fuel price hikes that caused CPI inflation to peak at 8.6 percent in July 2013. Moreover, the sharp increase in the policy rate was to dampen domestic demand in order to rein in the current account deficit, which rose to a peak of 4.4 percent of GDP in 2013:Q2. The timing of the aggressive policy rate increases was also important, as they have succeeded in reverting the capital reversals and pressures on the exchange rate following the taper tantrum. The bold interest rate response has been key in sending a strong, clear signal to the markets regarding Indonesia's monetary policy deliberations to safeguard macroeconomic and financial stability.

The bold interest rate response has succeeded in containing the inflation pressures and has helped reduce the current account deficit faster than initially forecasted. CPI inflation has returned to its normal path on a month-to-month basis since September 2013 and decelerated further in 2014. Had the government not raised again the domestic fuel price in October 2014, inflation would have been down to 4.9 percent at the end of 2014, or would have fallen within the target range of 4.5 ± 1 percent. The downward trend of inflation continued and reached 3.4 percent at the end of 2015, contained at the target range of 4.0 ± 1 percent. On the external side, trade balance turned into a surplus and the current account deficit fell much faster than expected to 3.0 percent of GDP in 2014 and around 2.0 percent of GDP in 2015. The current account deficit of about 2.5–3.0 percent of GDP is deemed sustainable in the longer term for Indonesia. Moreover, this price and external stability can be achieved with manageable moderation in economic growth at 5.0 percent in 2014 and 4.8 percent in 2015.

The interest rate policy has also been able to move bank activities to a more balanced and sustainable footing. Following the 175 bps increase in the policy rate, bank deposit rates rose by 240 bps as liquidity tightened and competition for funding among banks increased. The lending interest rate also increased, albeit at a slower pace, by less than 50 bps, due to a combination of factors (e.g., time lag in setting interest rates, wide interest rate margin, and shallowness of the domestic financial market). Overall, a combination of macroprudential measures, capital outflows, and economic slowdown has reinforced the impact of the interest rate increase on the pace of deceleration in domestic liquidity and bank lending. Monetary aggregates already declined substantially, e.g., M2 growth decreased from around 22 percent in 2013 to about 10.4 percent in December 2015. Similarly, bank lending growth decelerated more rapidly from 23.5 percent in 2013 to 10.5 percent during the same period.

With macroeconomic and financial stability successfully maintained, recent conditions make room for monetary easing. As discussed above, CPI inflation is forecasted to be contained within the targeted range of 4.0 ± 1 percent, at 3.4 percent at end-2015 and around 4 percent in 2016. Likewise, the current account deficit is well managed at a sustainable level of 2.5–3.0 percent of GDP, i.e., at around 2 percent of GDP in 2015 and 2.6 percent of GDP in 2016. With these forecasted inflation and other macroeconomic variables for the next two years, including incorporating the possibility of federal funds rate (FFR) increases over the course to the end of 2016, the implied Taylor rule estimation shows room for policy rate cuts from the current Bank Indonesia (BI) rate of 7.50 percent. This is also supported by an estimation of natural real rate

for Indonesia that is now well above its long-term level. In essence, the level of BI rate provided ample premium for external risks, especially in anticipation of FFR increases, well above that necessitated by the domestic price stability objective.

Nonetheless, with the lingering uncertainty in the global financial market—stemming mainly from the expected FFR increases as well as the divergence of monetary policies, particularly from the euro area, Japan, and China—Bank Indonesia remains cautious in easing its monetary policy. For this reason, Bank Indonesia's Board of Governors on November 17, 2015, decided to hold the BI rate at 7.50 percent, and instead opted to lower the primary reserve requirement from 8.0 percent to 7.50 percent of banks' deposits, effective December 1, 2015. In this respect, monetary easing through reduction in reserve requirement is expected to boost banks' financing capacity to stimulate economic growth, reinforcing the relaxation of macroprudential measures that has been issued. In the Board of Governors meeting on December 17, 2015, Bank Indonesia also decided to hold the BI rate at 7.50 percent, as it was considered too early to judge market reaction following the recent Fed decision of a 25 bps FFR increase.

Bank Indonesia started to ease its policy rate in January 2016 with a 25 bps cut, and it was followed by a 25 bps cut in February and another 25 bps cut March 2016. To ease bank liquidity for lending to the economy, the reserve requirement was also reduced by 100 bps to 6.50 percent. To facilitate stronger economic growth as well as preserve macroeconomic and financial system stability, Bank Indonesia will continuously strengthen policy coordination with the government in supporting fiscal stimulus for increasing domestic demand and accelerating structural reforms to upgrade the structure of the economy.

Exchange Rate Policy

Although policy rate increases have succeeded in anchoring inflation expectations and have helped dampen domestic demand, they alone could not be expected to bring about all the necessary economic adjustments, such as further reducing the current account deficit and mitigating global spillovers. To do so, it would have required excessive increases in the policy rate. Exchange rate flexibility helps facilitate reduction of the current account deficit and, furthermore, acts as a shock absorber of global spillover impacts to the domestic economy. Nonetheless, implementing exchange rate flexibility in emerging economies with relatively shallow domestic financial markets is quite challenging, especially at a time when the global financial market poses high volatility, as witnessed since the global crisis. Market-based exchange rate movements

are more erratic, and market irrationality often causes excessive misalignment (overshooting) beyond fundamentals. Greater flexibility must be weighed against excessive volatility.

In Indonesia, the exchange rate policy is geared toward maintaining the stability of exchange rate movements that is consistent with its fundamental path. When determining the policy interest rate, this path is calibrated by using some methodology for determining the fundamental exchange rate and then inputted to be consistent with macroeconomic forecasting and simulation. Incorporating exchange rate as an integral part for achieving the inflation target could strengthen monetary policy credibility under the inflation-targeting framework (Ostry, Ghosh, and Chamon 2012; Warjiyo 2014a). Many emerging economies incorporate exchange rate in determining the policy rate in the Taylor rule (Mohanty and Klau 2004; Aizenman, Hutchison, and Noy 2011). The methodology to check for the consistency of exchange rate movements with the fundamental path ranges from a simple real effective exchange rate (REER) to more complex macroeconomic models such as the external balance approach and computable equilibrium exchange rate developed by the International Monetary Fund (IMF). The exchange rate path serves as a general guide to monitor exchange rate movements. In most cases, the exchange rate is determined by the market. Nonetheless, if there is market overreaction that causes overshooting to the fundamental, symmetric intervention is conducted to smooth out the short-term exchange rate volatility. The objective is not to achieve a certain level or range of exchange rates, but merely to avoid excessive volatility that could give rise to panic and disruption in the foreign exchange market.

Foreign exchange intervention is complemented by central bank purchases of government bonds in the secondary market, especially during periods of large capital reversals, a tactic that is called “dual intervention” (Warjiyo 2013b). There are at least three rationales behind the operation. First, it helps strengthen the effectiveness of foreign exchange intervention in stabilizing the exchange rate. For Indonesia, heavy pressures on the exchange rate are mostly driven by large capital reversals from government bonds, as foreign investors account for about 38 percent of total bonds outstanding. With the close link between volatility of exchange rate and bond yields, interventions in both markets are required for achieving exchange rate stability. Second, purchases of government bonds from the secondary market are also intended to sterilize some of the impact of foreign exchange intervention on domestic liquidity. Through this dual intervention, some of the rupiah liquidity that has been absorbed due to foreign exchange intervention can be recirculated into the market, thus avoiding excessive liquidity squeeze and interest rate overshooting in

the money market. Third, dual intervention is a way of achieving the objective of monetary stability in a manner that is consistent with maintaining financial system stability. In particular, the operation at times of heavy market pressures provides a clear signal that the central bank stands ready to buy government bonds that foreign investors wish to unwind, in case the domestic market could not absorb them. By taking on the role of “market maker of last resort,” the central bank can better manage risks to market illiquidity and excessive asset price corrections, thus helping stabilize the overall financial market condition.

Capital Flow Management

Volatile capital flows, especially those of short-term and speculative nature, increase risks to both monetary and financial system stability. Carry-trade flows often give rise to excess volatility in exchange rate movements beyond that implied by fundamentals. Risks to market liquidity are also imminent. In one period, large capital inflows often lead to domestic excessive lending and asset bubbles, while in another, large capital reversals pose serious risks to market illiquidity and excessive asset price corrections. Dual intervention is one of the strategies to smooth out the impacts of volatile capital flows on asset prices and market liquidity. But in many cases, direct measures of capital flow management are needed.

In Indonesia, the policy on capital flow management is guided by three principles. First, the objective is to help mitigate the negative impacts of short-term volatility in capital flows on the stability of both the exchange rate and the overall monetary and financial system. Second, the measures specifically target short-term and speculative capital flows; medium- to longer-term flows are welcomed, as they benefit the economy. Third, the measures are consistent with the broad principle of maintaining the free foreign exchange system. They are temporary, i.e., the measures are strengthened in the event of excessive capital inflows and are relaxed in the event of excessive capital outflows, and do not differentiate between domestic and international investors.

The following provides a clear example. During heavy capital inflows from quantitative monetary easing, Bank Indonesia introduced in 2010 a six-month holding period for transactions in central bank bills and imposed a maximum of 30 percent capital to the short-term offshore borrowings of the banks. However, following the 2013 taper tantrum, the holding period for central bank bills was relaxed to one month and the transactions exempted from the calculation of banks' offshore borrowings were expanded. Recently, the holding period was further relaxed to one week to provide wider options of asset classes for portfolio investment, as global financial market volatility is lingering. Bank Indonesia

believes that these measures help dampen short-term and volatile capital flows, thus making them consistent with the objective of managing exchange rate and financial system stability.

Another example is Bank Indonesia regulation that was issued in 2014 requiring private corporates to strengthen risk mitigation for their external debts, as public and banks' external debts were already under strict regulations. The rationale for this new regulation was to respond to the rapid increase of private external debts driven by both global excess liquidity and needs for financing strong domestic demand. The problem was that proper risk mitigation could not be assured in those corporates, an indication that could resemble the condition leading to the 1997/98 crisis. Thus, under the new rule, corporates must provide a minimum hedging ratio of 20 percent net external debts due within three to six months to cover the risks of currency mismatch. On top of this hedging ratio, an additional liquidity ratio of minimum 30 percent net external debts due within three to six months is required to cover liquidity risks. In addition, to mitigate credit default risk, corporates that resort to external debts will be required to have a minimum credit rating of one notch below investment grade. As it deals with managing the flows and strengthening risks of external debts, the new regulation could be viewed as both capital flow management and macroprudential measures.

Macroprudential Measures

As previously underlined, the interest rate transmission mechanism of monetary policy is not always smooth or fully effective in a country with an underdeveloped financial market, such as Indonesia. Another channel of monetary transmissions that needs to be addressed is the lending channel. This is where macroprudential measures can play a role to reinforce the interest rate policy in influencing bank lending for managing aggregate demand and achieving price stability objectives. Macroprudential measures can also be used to smooth out the procyclical nature of bank lending behavior. Thus, the considerations of maintaining both monetary and financial system stability are taken into account when designing macroprudential measures.

In Indonesia, the formulation of macroprudential measures for managing bank lending is done as follows. Methodology is developed to assess optimality of actual bank lending growth relative to the level implied by full potential output condition (Utari, Arimurti, and Kurniati 2012). This model is then estimated to determine optimality of aggregate lending growth, of each bank, as well as to certain types of lending (consumption, working capital, and investment), and by economic sectors. By comparing these optimal growth figures

with actual lending growth, assessment could be made where lending is excessive and what macroprudential measures could be applied to correct the excessive misalignment. For addressing the credit gap in certain economic sectors or types of lending and household, for instance, macroprudential instruments such as loan-to-value (LTV) ratio, debt-to-income ratio, or different risk weights in the capital adequacy ratio (CAR) measurement could be implemented. For dealing with excessive lending by banks, supervisory actions are more effective as standalone measures or to complement other macroprudential instruments.

This is the approach that was applied by Bank Indonesia when introducing an LTV ratio of about 70–80 percent to lending to the automotive and property sectors in 2012, as they recorded excessive lending growth driven by both strong domestic demand and ample bank liquidity from huge capital inflows. Subsequently, confronted with increasing risks of housing bubbles, Bank Indonesia strengthened the macroprudential measures in 2013 by applying a progressive LTV ratio of a 5 percent deduction to every mortgage for the second and subsequent purchases of certain types of houses and apartments. The measures were also complemented by supervisory actions against banks that are viewed as excessive in their lending behavior. Note that the formulation and implementation of macroprudential measures required a very detailed and complex analysis and calibration, as well as the need for clear communication with the banks and business community on the rationale and objective of the measures.

The experience in Indonesia shows that macroprudential measures and supervisory actions helped reinforce the effectiveness of monetary policy transmission and helped support financial system stability (Purnawan and Nasir 2015; Wimanda et al. 2012, 2014). Although lending growth increased prior to the implementation of these measures, banks and their customers were probably taking advantage of the interim period, as lending declined substantially in the relatively short period of the subsequent episode. For instance, the growth in mortgages on housing of less than 21 square meters declined from more than 100 percent to negative growth during the period from June to September 2012. Likewise, the growth in mortgages on apartments of less than 21 square meters dropped from more than 300 percent to less than 10 percent during the period from January to November 2013. It should be noted that the automotive and property sectors have very large import content, so managing the growth in lending to these two sectors helped reduce the current account deficit, as well as reinforcing the policy responses through interest rate increases and exchange rate flexibility.

As discussed above, even though macroeconomic and financial stability have been successfully maintained, global risks are forcing Bank Indonesia to remain cautious in utilizing the window of monetary easing through interest rate cuts. Instead, Bank Indonesia opts to relax macroprudential measures to stimulate bank lending, domestic demand, and economic growth. Thus, prior to the recent 50 basis point reduction of reserve requirement to 7.50 percent, the LTV had already been relaxed by an average of 10 percent to about 80–90 percent in early 2015. The positive impact from this macroprudential easing can be seen in the recovering growth in bank lending to the real estate and construction sector that recorded at about 22 percent and 28 percent, respectively, in September 2015. Nonetheless, mortgage loans still show sluggish growth of about 8 percent, even lower than aggregate lending growth of 11 percent. The reason for the difference is that fiscal capital expenditures in a number of infrastructure projects started to stimulate investment demand and thus induced demand for lending in the real estate and construction sector, while demand for housing mortgages is still constrained by moderation of household income with the domestic economy slowdown.

Financial Market Deepening

The stage of development and depth of the domestic financial market influence the transmission mechanism and policy response to global spillovers. The interest rate transmission is constrained by wide margins between bank deposits and the lending rate, combined with the absence of a smooth and continuous term structure (particularly from six months to three years) in the domestic financial markets. The shallowness of the domestic foreign exchange market often causes excessive volatility and overshooting of exchange rate movements in response to global monetary and financial shocks. This is the rationale for Bank Indonesia's focus and priority on financial market deepening as an integral part of the policy responses to global spillovers. In addition to strengthening economic fundamentals and promoting sound macroeconomic and financial system stability, a key for better withstanding the global spillovers is to make the financial market more conducive and resilient to swings in international investor preferences.

Since 2013 Bank Indonesia has launched a series of aggressive policy initiatives to deepen the financial market, especially the domestic money and foreign exchange markets. In the foreign exchange market, the Jakarta Interbank Spot Dollar Rate (JISDOR) was successfully introduced in May 2013, reflecting the actual transactions of exchange rates, as a reliable reference for the market.

Subsequently, the Association Banks of Singapore (ABS) recommended that their members use JISDOR as a reference rate in fixing their nondeliverable forward (NDF) transactions. Hedging instruments were also introduced through Bank Indonesia's foreign exchange swaps transactions with the banks, both bilaterally and in weekly auctions. Further relaxation on regulations regarding underlying transactions for forwards and swaps as hedging instruments has been issued. Banks and corporates were also encouraged to use more hedging instruments in managing their increasing exchange rate risks. Significant progress has also been achieved in deepening the domestic money market, especially for collateralized transactions. Reverse repo has been conducted with government bonds in the monetary operations. Bank Indonesia has also succeeded in developing an interbank repo using government bonds as the underlying transactions.

Further initiatives to develop the financial market are key for creating an environment that is conducive for foreign capital inflows and economic financing. The significant progress made so far in deepening the foreign exchange and money markets will be followed by additional measures to strengthen interest determination, product development, and market infrastructure and conduct. The objective is to expedite the development of interbank swaps to provide hedging facilities for banks and corporates to better mitigate increasing exchange rate risks. Close links between the already developed interbank repo and the much needed interbank swap market would facilitate the smooth functioning of the domestic money market in responding to global monetary transmission. More products will be introduced in both money and foreign exchange markets, including development of negotiable certificates of deposit, commercial papers, promissory notes, and medium-term notes. In the capital market, measures for financial market deepening include the relaxation of corporate bonds issuance, the development of infrastructure bonds, and a domestic investor base.

Final Remarks

The sound economic performance of Indonesia is a positive outcome of close coordination between Bank Indonesia, the government, and related agencies in the key areas of monetary, fiscal, and structural reforms (Warjiyo 2013c). The macroeconomic and financial system stability needs to be continuously safeguarded in order to better withstand global spillovers. With both inflation and the current account deficit under control, any monetary policy easing through interest rate cuts needs to be cautiously calibrated against the impacts of lingering global market volatility on the need to maintain exchange rate and external

stability. Relaxation of macroprudential measures in the forms of an LTV ratio in early 2015 and recent monetary easing through reduction in reserve requirement have already provided more space for banks to provide lending for supporting economic growth, while demand is recovering through fiscal stimulus.

Policy coordination between the Ministry of Finance, Bank Indonesia, the Financial Service Authority (FSA), and the Indonesia Deposit Insurance Agency (IDIA) for maintaining financial stability is closely conducted through the Financial System Stability Coordination Forum (FSSCF). The deputies meet regularly every month, while the ministries meet quarterly or in the event of additional need. In these meetings, officials assess overall financial system stability (individual financial institutions, systemic risks, macro and fiscal risks, and global and external risks) and discuss coordinated policy measures to safeguard financial system stability. In addition, the forum provides clear institutional arrangements and protocol for a crisis prevention and resolution mechanism, reinforcing the already strong overall financial system condition.

From the government, a series of fiscal reforms has been accelerated under the new administration. The bold subsidy reforms have been implemented since the end of 2014 with the clear objective of moving from product subsidy to targeted subsidy. Such reform was first implemented by removal of a fuel subsidy on gasoline and introduction of a fixed 1,000 rupiah per liter subsidy on diesel. Other subsidy reforms include the removal of an electricity subsidy for industry and upper-middle-income households, and then the gradual move toward a targeted subsidy for lower-income households. The bold subsidy reforms have already generated significant savings for more productive fiscal expenditures to stimulate economic growth and support various social programs. The acceleration of these productive fiscal expenditures absorptions in both the central and local governments is now being addressed through a special task force specifically formed for the purpose. Fiscal reforms aimed at higher tax revenues and tax policy for supporting the economic development are also under way.

In addition to fiscal reforms, the new administration is also embarking on aggressive real-sector structural reforms in the areas of infrastructure, better investment climate, and social programs. The objective is to boost investment and productivity that will provide a better foundation for supporting strong, balanced, and sustainable growth over the medium term. Over the past months, the government has already issued seven deregulation packages, and more will follow. The deregulation encompasses measures, among others, that will cut red tape and simplify permit requirements and procedures, accelerate strategic infrastructure projects, simplify land permit procedures, and develop low-cost housing, integrated logistics facilities, and special economic zones.

Tax incentives are also given for supporting export-oriented and import-substitution industries. For supporting financing of the infrastructure and property sector, a real estate investment trust will also be established. The fiscal stimulus and progress of these reforms have been able to accelerate the infrastructure development and significantly improve the ease of doing business in Indonesia.

In closing, Indonesia has weathered global spillovers relatively well. The policy mix of monetary and macroprudential measures proves to be more effective in anchoring inflation, lowering the current account deficit, and maintaining financial system stability, with a modest decline in economic growth. The policy mix of monetary and fiscal policies also plays a supportive role not only in the stabilization process over the short term but also in providing stimulus for economic growth. At the same time, acceleration of structural reforms will be monumental in moving the Indonesian economy toward higher, sustainable, and balanced economic growth over the medium to long term.

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