Indonesia: Global Spillover and Policy Response

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Abstracts

Notwithstanding the unprecedented strains of external shocks from global economic and financial market, Indonesia has been weathering well the spillovers. Overall macroeconomic and financial stability have been maintained while impact to economic growth has been relatively moderate. This is an evidence that policy mix of prudent monetary and macroprudential measures combined with sound fiscal and structural reforms have able to strengthen the domestic economic fundamentals in mitigating the spillovers and support the economic growth. The aggressive and bold response of interest rate complemented by flexible exchange rate, capital flows management, and macroprudential measures have resulted in streams of positive news of benign inflation, faster than expected decline in current account deficit, and better than expected GDP growth to the markets. The recent subsidy reform has opened up fiscal space for stimulating economic growth while maintaining fiscal sustainability. Structural reforms in the real sectors as well as financial market deepening also play pivotal role for securing a strong, balanced and sustainable growth over the medium-term.

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JEL Classification: F32, G1, E5

I. Introduction

Emerging economies have been subjected to a number of external shocks from global economic and financial market volatility, especially over the past five years. Global economic recovery has been slow and uneven, causing emerging economies to resort to domestic demand to compensate declining exports for supporting 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, particularly China, becomes apparent and has spill backed to other countries, both emerging and advanced countries, and putting further pressures to global economic recovery. The China factor already goes beyond its economic slowdown, but also encompasses global implications of its policy to open up its foreign exchange system and internationalization of Renminbi to be included into Special Drawing Reserve (SDR) currency basket.

Increasing volatility in the global financial market emanating from global economic imbalances and divergences in monetary policy across nations also put unprecedented challenges to emerging countries. In the past, the quantitative monetary easing by advanced

countries lead to global excess liquidity and huge capital inflows, causing exchange rate appreciation and financing to the economy, to emerging countries. Overall, the global spillovers were favorable in supporting stability and growth in the emerging countries. But the condition was reversed since the Fed announced its plan of monetary normalization process (the tapper tantrum) in mid-2013, while other major advanced countries including Europe and Japan continue to adopt quantitative monetary easing. These divergences of monetary policy have increased the volatility in the global financial market, putting even higher risks of capital reversals and exchange rate pressures to emerging countries.

These strains of external shocks from global economic and financial market have forced many emerging countries to face a dilemma between managing macroeconomic and financial system stability with mitigating the negative impacts to economic growth. Designing policy response to mitigate these complex global spillovers is challenging both in terms of policy instruments and optimal configuration. From central bank perspective, the challenge is to maintain its independence in setting 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 option as external shock absorbers, 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 help the effectiveness of monetary policy. Measures from fiscal policy and structural reforms are necessary for improving investment climate, productivity and competitiveness of the real sectors while creating fiscal space for stimulating economic growth.

This paper reviews the Indonesian experience in designing and implementing policy responses to mitigate the global spillover impacts, with a focus on the recent episode following the Fed announcement of planned tapering in May 2013. In particular, three main issues will be discussed. First, the setting of interest rate for managing macroeconomic and financial system stability supported by exchange rate flexibility and capital flows management in responding to policy trilema arises from global spillovers. Second, the efficacy of macroprudential measures in safeguarding financial system stability and reinforcing lending channel of monetary transmission mechanism at the back of volatile capital flows and underdeveloped financial market. And third, the important of financial market deepening in smoothing out the transmission of global monetary factors to domestic monetary and financial system stability. The note concludes with policy coordination of monetary, fiscal, and structural reforms for further strengthening the macroeconomic stability in the short-term and accelerating reforms agenda for sustainable and balanced growth in medium-term. To set the stage for these policy discussions, the following section reviews the Indonesian macroeconomic performance since the global crisis.

II. Global Spillover to Emerging Markets

The following three aspects of global economic and financial market development warrant special attention as they have significant impacts to the economy and policy responses of the emerging countries. First, global economic recovery has been relatively slow and uneven. In the advanced countries, while US economic recovery is progressing, the economic growths in the Euro area and Japan are still sluggish. In the emerging countries,

slowdown in growth becomes more apparent in China which is then spilling back to the slow pace of global economic recovery and slowdown in other emerging countries, notably Asia. With global economic recovery depends only on one engine, i.e. recovery in the US, slower than expected increase in world trade volume limits external source of growth. Under such unfavorable external environment, emerging countries must resort to domestic demand to support their economic growth to compensate the weakening exports.

Second, global commodity prices continue falling with weak demand, including slowdown in China, new low-cost mineral productions, and geopolitical tensions. The end of commodity super cycle added significant negative trade channel impacts to the export and growth performances of many emerging economies. The impacts are more severe in those commodity exporting countries, giving rise to macroeconomic stability risks with weakening current account balances. The indirect impacts are also being felt by those manufacturing exporter countries with slower than expected global economic recovery. This has put constraints to the ability of emerging countries to push their domestic demand to support economic growth without further worsening their current account balances and macroeconomic stability risks.

Third, global financial market volatility has been unprecedented high with the divergence of monetary policies across countries. In the period of ultra-quantitative monetary policy easing by advanced countries, notably in the US, Euro and Japan, global excess liquidity has flushed huge capital inflows to emerging countries, and pushing significant exchange rate appreciation, notably during the period of 2009 to mid-2013. Nonetheless, the planned normalization process of monetary policy in the US since mid-2013 has reversed the conditions and increased the risk-off in the global financial market. A combination of capital flow reversals, strengthening US dollar, and risk-off/risk-on market behavior has put serious pressures to the exchange rate and external vulnerability of many emerging countries. The pressures to 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 countries, giving rise to the debate of currency war among policy makers.

The extents to which these global spillovers impact the emerging countries depend on their respective economic fundamentals and policy responses. In general, the impact will be relatively contained for countries with strong economic fundamentals in the forms of low inflation, manageable current account balance, sustainable fiscal position, and more diversified economic structure. Sound macroeconomic policy through pre-emptive monetary and prudent fiscal policies will also strengthen the resiliency in withstanding the global spillovers. While monetary policy in many emerging countries need to be focus on maintaining macroeconomic and financial stability, fiscal policy can play a role for creating space to stimulate growth when fiscal sustainability is not an issue. Moreover, emerging countries need to accelerate structural reforms in key areas of real sectors, fiscal, and financial market deepening for better mitigating external shocks to manage macroeconomic stability and support the economic growth.

Nonetheless, the complexity of the spillover impacts –such as exchange rate pressures, capital reversals, asset prices volatility, increasing risk premium, liquidity and credit risks—require policy makers 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 shallowness of domestic financial market often causing excessive volatility

in the market reaction and inhibiting effective monetary transmission mechanism. To ensure macroeconomic and financial stability, the interest rate response needs to be complemented by greater exchange rate flexibility, capital flows management, macroprudential measures. Crisis prevention and resolution management is also important to build capability in early warning exercise and coordinated policy responses across authorities. Building line of defenses in the form of foreign reserve adequacy as well as international and regional financial safety arrangements is also important to raise the bar for the country resiliency against the global spillovers.

III. Indonesia: The Macroeconomic Context

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

Notwithstanding the strains of external shocks, 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 have taught hard lessons that strengthening domestic economic fundamentals with sound macroeconomic and financial system policies are vital. A law has been introduced that limit the budget deficit of both central and local government at a maximum of 3% of GDP. A new central bank law was issued which give independency and clear mandate of price stability to Bank Indonesia. Moreover, financial restructuring has resulted in high capitalized banks with sound risk management and governance. Overall, these reforms put Indonesia in a better position than in 1997/98 in withstanding the 2008 global crisis. In fact, in the period of 2009 to 2011, Indonesia benefited from high global commodity prices and huge capital inflows that result in high growth, low inflation, current account surplus, and exchange rate appreciation. Nonetheless, the end of global commodity price in 2011 and subsequent normalization process of US monetary policy have put strains on external sector of Indonesia, giving rise to current account deficit, volatile capital flows, and exchange rate pressures, which necessitate policies adjustment to manage macroeconomic stability and supporting economic growth.

From the growth perspective, Indonesia has recorded a stable and relatively high economic growth. In 2009, for example, Indonesia is among few countries that recorded economic growth of 4.5% when other countries are under recession. The growth averaged relatively high of 6.3% during the period of 2010-2012, but slowdown in China and decline in

commodity prices pushed down the Indonesia growth to moderate at average of 5.2% in 2013-2015 (Table 1). These favorable growth performances have been mostly driven by domestic consumption and investment. Export showed strong performance in 2010 and 2011, with growth of 15.3% and 13.6%, respectively, but the slowdown in China and decline in commodity prices have put pressures on Indonesian export performance since 2012. Overall, the strong domestic consumption and investment have been able to compensate the declining export performance in supporting the Indonesian economic growth. Going forward, Indonesia economic growth is forecasted to accelerate to 4.7-5.1% in 2015, and 5.2-5.6% in 2016, with fiscal stimulus and structural reforms as well as continued global economic recovery.

The strong Indonesian economic performance has also been achieved with the sound macroeconomic and financial system stability. On price stability, except in the event of increase in domestic subsidized fuel price and other administrative prices, the CPI inflation has been under control within the target ranges. It was on the downward trend from 6.9% at the end of 2010 to 3.8% in 2011 and 4.3% in 2012, within its target range of 4.5±1%. The core inflation has been kept under controlled at below 4.5% during the period while the impacts of global commodity prices were muted with Bank Indonesia letting the appreciation of Rupiah, benefiting from huge capital inflows at that time. However, the increases of domestic fuel prices in 2013 drove the CPI inflation to 8.4% in 2013, exceeding the target range of 4.5±1%. The same happened in 2014 as subsidy reform that led to domestic fuel price increase caused the CPI inflation to increase to 8.4%, exceeding the target range of 4.5±1%. Since then, the CPI inflation has been kept under controlled and decelerated to 6.3% in October 2015, and as the base effect from the 2014 fuel price increase dissipated, it is estimated to come down even further to 3.6% at the end of 2015, within its target range of 4.0±1%. A combination of well-anchored inflation expectation, slugish domestic demand, and muted imported inflation, the CPI inflation is forecasted to be kept under controlled at 3.9% in 2016, within its target range of 4.0±1%.

The volatile global commodity prices and capital flows have also affected the performance of Indonesian external sector. During the period from 2009 to mid-2011, Indonesia enjoyed current account surplus, peaked at US$ 10.6 billion 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 FDI and portfolio investments, buoyed by global excess liquidity from quantitative monetary easing in the advanced countries. The surplus in capital account peaked at US$ 26.5 billion in 2010, before it declerated 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 drops in global commodity prices. Current acccount turned into large deficit of US$ 24.4 billion (2.8% of GDP) in 2012 and widened further to US$29.1 billion (3.2% of GDP) in 2013. Strong macroeconomic policy adjustments through both monetary policy tighthening by the central bank and prudent fiscal policy by the government has been able to narrow the current account deficit to a more sustainable level of around 2.5-3.0% of GDP. In fact, the deficit has fallen faster than expected to US$ 26.2 billion (3.0% of GDP) in 2014 and US$18.2 billion (2.1% of GDP) in 2015. The strong macroeconomic policy adjustments are also vital for securing market confidence. In fact,

capital inflows remained high at US$ 24.9 billion in 2012, leading foreign reserves to further increased to US$ 112.8 billion.

However, large capital reversals of portfolio investments following the Fed tapper tantrum in 2013 have caused 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 has quickly returned as Bank Indonesia aggressively responded with "stabiility over growth policy" through interest rate and other measures (will be discussed in the next session), increasing 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 Fed fund rate and market reaction to the Fed communication have once again intensified the external pressures. Even though both inflation and current account deficit have been under controlled, 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 given impact to exchange rate movements and thus risks to both monetary and financial system stability. As such, the exchange rate was appreciated strongly up to August 2011 with the surpluses in both current and capital accounts, but it was under pressures since then with the capital reversals impacted by the worsening of European crisis. Subsequently, exchange rate was heavely under pressures following the Fed tapper tantrum to depreciate of 26.1% 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 an absorber to external shocks. In most cases, the exchange rate is determined through market mechanism, but in some cases Bank Indonesia intervene with an objective to stabilize the exchange rate along its fundamental level. Nonetheless, maintaining exchange rate flexibility is a daunting challenge in such volatile global environment, especially in assessing its consistency with macroeconomic outlook and maintaining its stability.

Indonesia resilence in withstanding global spillover is not only attributed to sound macroeconomic policies but also supported by strong financial system. Overall, financial system stability remains solid, underpinned by a resilient banking system and relatively stable financial markets. Banking industry is well capitalized with credit, liquidity and market risks well mitigated. In August 2015, the Capital Adequacy Ratio (CAR) remained well above the 8% minimum threshold at 20.5%, while non-performing loans (NPL) were low and stable at 2.8% (gross) or 1.4% (net). In terms of the intermediation function, credit growth accelerated to 10.9% (yoy) while deposit growth was recorded at 13.2% (yoy). Looking forward, credit growth is predicted to continue accelerating in line with an increase in economic activity and more loosened macroprudential policy stance adopted by Bank Indonesia.

IV. Monetary and Macroprudential Policy Mix

For small open economy, global spillovers give rise to policy trilemma of the optimal setting on interest rate, exchange rate flexibility, and some forms of capital flows management. Interest rate policy needs to be geared toward maintaining price stability, taking into account the impacts on economic growth. To mitigate the global spillover, some

rooms for exchange rate flexibility can act as shock absorber. But market over-reaction and structural rigidities may cause unnecessary exchange rate overshooting and volatility that may hamper overall monetary and financial system stability. Foreign exchange rate intervention to avert excessive volatility of exchange rate can be an option.

Volatility in the capital flows is also complicating the optimal monetary policy response for achieving domestic economic objectives. Functioning of monetary policy transmission mechanism can be affected by volatile capital flows, particularly through their impact on domestic excess liquidity in the financial system. Hence, interest rate policy alone would not be sufficient for 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 such environment. Furthermore, volatility in capital flows may cause bank lending tend to be procyclical to global financial market instead of domestic economic activity.

For Indonesian case, we cope with this policy trilemma through a monetary and macroprudential policy mix, consisting of interest rate response complemented by some exchange rate flexibility, capital flow management, and macroprudential measures. The interest rate policy, as in other inflation targeting countries, is the main instrument to anchor inflation expectation and forecast going forward to fall within the targeted range. Exchange rate policy is geared toward maintaining the stability along its fundamental path. Some forms of capital flows management are implemented to dampen its short-term excessive volatility and help stabilizing the exchange rate. Macroprudential measures are targeted to manage procyclicality and excessive lending in some 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, as well as central bank cooperation on strengthening regional financial arrangements also play 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 this period, there is no underpinning reason for interest rate response as domestic inflation was under controlled even though economic growth was approaching to potential output level. In addition, as mentioned above, increase in interest rate would further induce capital inflows and overshoot exchange rate appreciation. For this reason, capital flows management was introduced through holding period for investing in central bank's bills. At the same time, macroprudential measures were also implemented through increasing reserve requirement and introducing Loan-to-Value (LTV) ratio to automotive and property lending. These measures together prove to be effective in smoothing short-term capital inflows and in managing domestic liquidity and bank lending.

The situation has become challenging since the Fed tapper tantrum in mid-2013. Capital reversals have been large in the aftermath of Fed tapper tantrum and subsequently capital flows have been increasingly volatile. The complexity of policy response was also attributed to domestic problems of high inflation following the government policy to increase the subsidized fuel price. Current account deficit was also widened to 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 will discuss further details each of the instruments in the policy mix.

Interest rate policy

Indonesia was one of the first cental banks that ahead of the curve raised its policy rate in the aftermath of Fed announcement on planned tapering in May 2013. Bank Indonesia started by raising the policy rate by 25 bps in June 2013. Bank Indonesia then aggressively raised the policy rate by 50 bps in July, by another 50 bps in August, and by 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% within six months. Bank Indonesia has kept the policy rate on hold since then and maintained our tight monetary policy stance.

The primary objective of this aggressive interest rate response was to preemptively anchor inflation expectation which initially had risen due to food price shocks. Another aim has been to contain the second-round impacts of fuel price hikes that caused CPI inflation to peak at 8.61% in July 2013. Moreover, the sharp increase in the policy rate has had the goal of dampening domestic demand in order to rein in the current account deficit, which rose to a peak of 4.4% of GDP in Q2 2013. The timing of the aggressive policy rate increases has also been important as they have helped respond to the capital reversals, rising interest rates and increasing risks in the global financial markets following the Fed's announcement of its tapering plans. We believe the bold interest rate response has been key in sending a strong, clear signal to the markets regarding our monetary policy deliberations.

The bold response in interest rate has succeeded in containing the inflation pressures and has helped reduce current account deficit faster than initially forecast. The CPI inflation has returned to its normal path on month-to-month basis since September 2013 and decelerated further in 2014. Had the government not to raise again domestic fuel price in October 2014, the inflation would have been down to 4.9% at the end of 2014, or fell within the target range of 4.5±1%. The downward trend in inflation continued in 2015 and it is currently estimated at 3.6%, or contained at the target range of 4.0±1% in 2015. On the external side, trade balance turned into surplus and current account deficit fell much faster than expected to 3.0% of GDP in 2014 and around 2.0% of GDP in 2015. Current account deficit of about 2.5-3.0% of GDP is deemed sustainable in the longer term for Indonesia. The good news is that these price and external stability can be achieved with manageable moderation in economic growth of 5.0% in 2014 and estimated at 4.7-5.1% in 2015.

The interest rate policy has also been able to affect bank activities to a more balanced and sustainable footing. Following the 175 bps increase in the policy rate, bank deposit rates have risen by 240 bps as liquidity has tightened and competition for funding among banks has increased. However, lending rates have increased by less than 50 bps due to a combination of factors, e.g. a time lag in setting interest rates, excess liquidity and aggressive lending by some banks, as well as shallowness in the domestic financial market. Aggregate liquidity and monetary aggregates have already declined substantially, e.g. M2 growth downed from around 22% in 2013 to about 12% in July 2015. Similarly, bank lending growth declined more rapidly from 23.5% to 9.6% during the same period. A combination of weakening growth and capital outflows has reinforced the impacts of interest rate increase on the pace of deceleration on these monetary aggregates and bank lending. The macroprudential measures that were introduced has also able to reinforce the effectiveness of interest rate policy in managing bank liquidity and lending.

Exchange rate policy

Although policy rate increases have succeeded in anchoring inflation expectations and 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 the global spillover effects. To do so would have required excessive increases in the policy rate. Exchange rate flexibility helps in facilitating the reduction of current account deficit and be able to act as shock absorber of global spillover impacts to the domestic economy.

In Indonesia, exchange rate policy is geared toward maintaining the stability of exchange rate movements that is consistent with its fundamental path. The path is calibrated by using some methodology for determining the fundamental exchange rate and then inputted to be consistent with macroeconomic forecasting and simulation when determining the policy interest rate. Real Effective Exchange Rate (REER) is one approach for checking the consistency of exchange rate movements with the fundamental. To achieve this objective, symmetric intervention in the foreign exchange market is conducted to smooth out the short-term volatility of day to day exchange rate movements in the market with the path that is consistent with the fundamental equilibrium exercises. 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 disrupt the smooth functioning of the foreign exchange market.

Foreign exchange intervention is complemented by central bank purchases of government bond in the secondary market, especially during periods of large capital reversals, a tactic that we call dual intervention. There are at least three rationales behind the operation. First, it helps strengthen the effectiveness of foreign exchange intervention in stabilizing the exchange rate. By buying bonds from the secondary market, the central bank sends a clear signal that it is prepared to buy government bonds that foreign investors wish to offload. Second, purchases of government bond 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 back into the market, thus avoiding an excessive liquidity squeeze and interest rate overshooting in the money market. Third, the dual intervention is a way of achieving the objective of monetary stability in a manner that is consistent with maintaining financial system stability. By stabilizing the foreign exchange and government bond markets, the dual interventions also help stabilize the overall financial market.

Capital flows management

Volatile capital flows, especially those of a short-term and speculative nature, increase the risks to both monetary and financial system stability. Carry trade flows often give rise to excessive volatility in exchange rate movements beyond that implied by fundamentals. Dual intervention is one of the strategies to smooth out this volatility. But in some cases, measures of capital flows management are needed.

In Indonesia, the policy on capital flows management is guided with 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 our broad principle of maintaining a free foreign exchange system. They are temporary, i.e. the measures are strengthened in the event of excessive capital inflows, and relaxed in the event of excessive capital outflows, and do not differentiate between domestic and international investors.

The following providea a clear example. During heavy capital inflows from the quantitative monetary easing, Bank Indonesia introduced in 2010 a six-month holding period for transactions in the central bank bills and imposed a maximum of 30% capital to the short-term off-shore borrowings of the banks. However, following the Fed's announcement in 2013 about its planned tapering, the holding period for central bank bills was relaxed to one month and expanded the number of transactions that could be exempted from the calculation of banks' offshore borrowings. The holding period was further relaxed to one week recently to provide wider option of asset class 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 financial system stability.

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. Other channels of monetary transmissions must be deployed, including the lending channel. This is where macroprudential measures can play a key role, including in smoothing out the procyclicality nature of bank lending behavior. Thus, both the Bank Indonesia takes account of both the objectives of maintaining monetary and financial system stability when designing macroprudential measures.

In Indonesia, the formulation of macroprudential measures is done as follows. First, we develop a number of methodologies to estimate optimal lending growth for the banks, including what we call the non-accelerating inflation lending growth model. We then apply this model to aggregate lending growth and to the 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, we get an idea of where lending is excessive and therefore also of which macroprudential measures to use.

This is the approach that we applied when introducing the loan-to-value (LTV) ratio for lending to automotive and property sectors in 2012. We subsequently strengthened the LTV ratio on lending to the property sector in 2013, especially on mortgages for second and subsequent purchases of certain types of houses and apartments. The measures were also complemented by supervisory actions against banks that we viewed as excessive in their lending behavior. Note that the formulation and implementation of macroprudential measures required a very detail and complex analysis and calibration, as well as the need for clear communication with the banks and the business community.

Our experience shows that the macroprudential measures and supervisory actions helped reinforce the effectiveness of the monetary transmission mechanism and supported financial system stability. Although lending growths increased prior to the implementation of these measures, probably banks and their customers were taking advantage of the interim period, they declined substantially in relatively short-period in the subsequent episode. For instance, the growth in mortgages on housing of less than 21 square metres, declined from more than 100% to negative growth during the period June to September 2012. Likewise, the growth in mortgages on apartments of less than 21 square metres dropped from more than 300% to less than 10% during the period 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.

Financial Market Deepening

The stage of development and depth of the domestic financial market influence the transmission mechanism and policy response to global monetary factors, in both the quantitative monetary easing period as well as the normalization process. The preceding discussions in this paper clearly show the challenges that we have faced in Indonesia. Interest rate transmission lags in the absence of domestic money and fixed income markets that can provide an efficient mechanism for interest rate and term-structure determination. 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 focus and priority on financial market deepening, as an integral part of our policy responses to the normalization process of the quantitative monetary policy in the advanced countries. In addition to strengthening the economic fundamentals, and promoting sound macroeconomic and financial system stability, the best defense for withstanding the spillover effects of such global monetary and financial developments is to make the financial market more conducive and resilience to swings in nternational investor preferences.

Bank Indonesia has launched a series of policy initiatives to deepen our financial market, especially the domestic money and foreign exchange markets. In the foreign exchange market, we succeeded in establishing the Jakarta Interbank Spot Dollar Rate (JISDOR), reflecting the actual transacted exchange rates, as a reliable reference for the market. Recently, the Association Banks of Singapore (ABS) recommended their members to use JISDOR as reference rate in fixing their non-delieverable forward (NDF) transactions. We have also introduced FX 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. We have also made significant progress in deepening the domestic money market, especially for collateralized transactions. More reverse repo has been conducted with government bonds in our monetary operations. Bank Indonesia has also succeeded in developing an interbank repo using government bonds as the underlying transactions.

Further initiatives to develop financial market are key for creating an environment that is condusive to beneficial capital inflows and financing for the economy. 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, as well as market infrastructure and conduct. The objective is to expedite the development of interbank swaps to provide hedging facilities for the 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 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 certificate deposits, commercial papers, promissory notes, and medium-term notes.

V. Final Remarks

The sound economic performance of Indonesia is a positive outcome of close coordination among Bank Indonesia, the Government and related agencies in the key areas of monetary, fiscal and structural reforms. The macroeconomic and financial system stability needs to be continuously safeguarded, especially in the short term in anticipation of the Fed-fund rate increase. With both inflation and current account deficit are under controlled, any monetary policy easing need to be cautiously callibrated against the impacts of lingering global market volatility to the need of maintaining exchange rate and external stability. Relaxation of macroprudential measures in the forms of Loan-to-Value (LTV) ratio early this year have already provided more space for banks to provide lending for supporting economic growth whenever demands are recovering from fiscal stimulus.

Policy coordination between Ministry of Finance, Bank Indonesia, Financial Services Authority (FSA), and Indonesia Deposit Insurance Agency (IDIA) for maintaining financial stability is closely conducted through Financial System Stability Coordination Forum (FSSCF). The deputies level meet regularly every month while the ministrial level meeting held quarterly, or in the event that additional meeting needed. The meeting assesses overall financial system stability (from the individual financial institution, systemic risks, macro and fiscal risks, as well as global and external risks) and discuss coordinated policy measures to safeguard the financial system stability. In addition, the forum provides clear institutional arrangements and protocol for 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 were implemented toward the end of 2014 with the clear objective of moving from product subsidy to targeted subsidy. It was first implemented by removing fuel subsidy to gasoline and introduced a fixed Rp1000 per liter subsidy to diesel. Other subsidy reforms follow for electricity tariff, by removal of electricty subsidy for industry and high-midle income households, and then gradual moves toward targeted subsidy for lower income housholds. The bold subsidy reforms have already create significant savings for more productive fiscal expenditures to stimulate economic growth and support various social programs. The acceleration of these productive fiscal expenditures absorptions both in the central and local governments is now being addressed through a special task force specially formed for the purpose. Fiscal reforms for better tax revenues and tax policy for supporting the economic development are also underway.

In addition to fiscal reforms, the new admistration is also embarking aggressive real sector structural reforms in the areas of infrastuctures, investment climate improvement, and social programs. The objective is to boost investment and productivity that will provide a stronger foundation for supporting a strong, balanced and sustainable growth over the medium term. Over the past months, the government already issued six deregulation packages and more will follow. The deregulation encompasses measures, among others, for cutting the red tapes and simplifying the permit requirements and procedures, accelerate strategic national projects, simplification of land permit, low cost housing, integrated logistics facilities, and the development of special economic zones. Tax incentives are also given for supporting export oriented and import substitution industries. For supporting financing of infrastrctures and property sector, real estate investment trust will also be estabilished. The fiscal stimulus and progress of these reforms have been able to accelerate the infrastructure development, as well as significant improvement in the ease of doing business in Indonesia.

In closing, Indonesia has weathering relatively well in withstanding the spillover effects from the normalization process of the Fed monetary policy and other external shocks from global economic and financial market. The policy mix of monetary and macroprudential measures proves to be more effective in anchoring inflation, lowering current account deficit and maintaining financial system stability, with a modest declined in economic growth. The policy mix of monetary and fiscal policies also plays supportive role not only in the stabilization process over the short-term but also 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-long term.

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Table 1. Indonesia: Selected Macroeconomic Indicators, 2009-2015

	2009	2010	2011	2012	2013	2014	2015*
GDP Growth (%)	4.63	6.22	6.49	6.26	5.78	5.02	4.71
a. Consumption (%)	6.20	4.14	4.51	4.77	5.23	4.82	4.98
b. Investment (%)	3.29	8.48	8.77	9.25	4.71	4.12	4.23
c. Export (%)	-9.69	15.27	13.65	2.00	5.30	1.02	-0.60
d. Import (%)	-14.98	17.34	13.34	6.66	1.21	2.19	-5.19
CPI Inflation (%)	2.78	6.96	3.79	4.30	8.38	8.36	6.25
a. Core inflation (%)	4.28	4.28	4.34	4.40	4.98	4.93	5.02
b. Volatile food prices (%)	3.95	17.74	3.37	5.68	11.02	10.88	6,95
c. Administered prices (%)	-3.26	5.40	2.78	2.66	2.91	17.57	9,83
Balance of payment ($ m)	12,506	30,343	11,857	215	-7,325	15,249	-6,393
a. Current Account ($ m)	10,628	5,144	1,685	-24,418	-29,115	-26,233	-18,187
- % of GDP	2.00	0.72	0.20	-2,80	-3,20	-3.00	-2.11
b. Capital Account ($ m)	4,852	26,526	13,636	24,909	22,010	43,586	14,871
- FDI	2,628	11,106	11,528	13,716	12,295	15,266	13,167
- Portfolio Investment	10,336	13,202	3,806	9,206	10,875	25,802	12,190
- Other Investment	-8,208	2,262	-1,801	1,922	-871	2,705	-10,473
Exchange Rate (Rp/$)	9,447	9,036	9,113	9,715	12,250	12,135	13,555
- % Change	14.16	4,35	-0.85	-6.61	-26.09	0.94	-8.69
FX Reserves ($ m)	66,165	96,207	110,123	112,781	99,387	111,862	100,712
- Month of import (cif)	8.59	8.93	9.34	9.62	9.01	6.60	7.10
Interest Rates							
a. BI (Policy) Rate (%)	6.50	6.50	6.00	5.75	7.25	7.75	7.50
b. Deposit Rate (%)	6.87	6.69	6.35	5.85	7.92	8.58	7.77
c. Lending rate (%)	13.69	12.75	12.18	11.50	12.12	12.79	12.65
Banking							
a. CAR (%)	17.42	17.18	16.05	17.43	18.13	19.57	20.51
b. Deposit Growth (%)	13.76	20.45	18.72	15.61	13.11	12.17	13.75
c. Lending Growth (%)	10.12	23.28	24.67	23.13	21.39	11.56	9.63
d. NPLs (%, gross)	3.40	3.07	2.23	2.01	1.82	2.23	2.79