# Newsletter



Institute for International Monetary Affairs 公益財団法人 国際通貨研究所

### The Indonesian Economy: An Analysis of its Capital Outflow Risks

Yoshino Takeyama Economist

Takeyama@iima.or.jp\_

**Emerging Economy Research Department Institute for International Monetary Affairs (IIMA)** 

#### Introduction

The Indonesian economy has been on a mild expansionary path, and its resilience against external shocks has been strengthened, leading to its government bonds evaluated as investment grade. However, influenced by the tightening of the US monetary policy and uncertainties in the international financial market associated with the US-China trade tensions, the Indonesian rupiah has tended to decline against the US dollar, with a threatening capital flight by foreign investors.

In this article I will review the recent development of the Indonesian economy and examine the risks for a decline of the rupiah and outflows of capital from Indonesia.

#### 1. Overview of the economy: Economic growth and finance

#### (1) The economy continues to expand moderately

The Indonesian economy has been growing strongly at around 5% for the past 5 years (Figure 1). The domestic demand has expanded led by private consumption while capital investment (gross fixed capital formation) has also increased supported also by the increased foreign direct investment (FDI).

The government of Indonesia had set a target of economic growth for 2018 at 5.4% reflecting the expansion of private consumption supported by the continuous increase of minimum wages

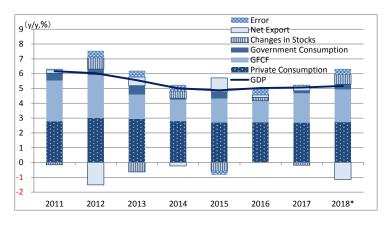
and increase of population coupled with expansion of government expenditures associated with the presidential election scheduled in 2019. However, private consumption started to stagnate in the latter half of the year under the influence of monetary tightening (to be described later in details) taken to prevent the depreciation of the rupiah. Also business enterprises started to refrain their investment as it was seen also in the early phase of the past two presidential election processes (in 2009 and 2014). Accordingly, the government now thinks that it will be hard to achieve the initial target of the economic growth for 2018 and expects that the economy will end up with a growth of 5.2%.

Evaluation of Indonesia by the rating agencies has been improving during the past 12 months (to be described below in details) and the economy will basically continue to expand. However, the economy is expected to experience a temporary small decline as the country needs to prioritize the stability of its financial market in the short run and refrain from taking stimulus measures.

Until the 1990s, main industries in Indonesia used to be dominated by agriculture, forestry and fisheries, and mining and quarrying, but in the 2000s they shifted to manufacturing, and more recently the tertiary industry like commerce, transportation and telecommunication as well as finance and services has been growing (Figure 2). Thanks to strong economic growth, its per capita income has reached almost \$4,000. In such a situation, the government of Indonesia announced that it would start on a full scale the official development assistance (ODA) toward developing countries. It established in February 2018 an agency to make development assistance (with a funding of \$70 million) and plans to promote as a member of G20 its assistance mainly targeting Islamic nations. It is also noteworthy that Indonesia will enjoy a period of demographic bonus until 2030 having a boost on the economic growth from a demographic front (Figure 3). The country now has the world 17<sup>th</sup> largest scale of GDP and President Joko Widodo (Jokowi) aims to enable it to join the world top 10 in 2030<sup>1</sup>.

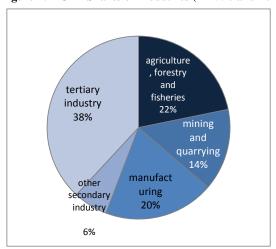
<sup>&</sup>lt;sup>1</sup> President Joko Widodo aims to transform the Indonesian economy from the resource dependent one in the 1990s to high value added one, by presenting roadmaps not only to its shift to the secondary and tertiary industries but also to realize the fourth industrial revolution.

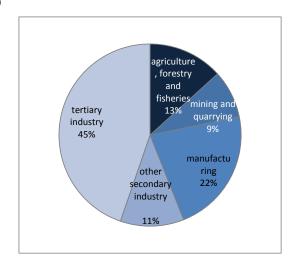
Figure 1: Real GDP Growth Rates



(Source) Bank Indonesia (central bank) Note: Up to the third quarter for 2018

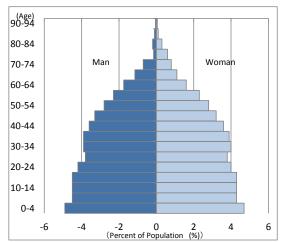
Figure 2: GDP Shares of Industries (in 1990 and 2016)





(Source) Statistics Indonesia

Figure 3: Demographic Composition (by age and sex)



(Source) Statistics Indonesia

### (2) Reforms for fiscal consolidation under way

The fiscal balance of Indonesia has been constantly in red, but based on the provisions of its national fiscal balancing law, the magnitude of the deficits has been contained within 3% of GDP (Figure 4). Accordingly, the share of the government debt outstanding to GDP remains contained at around 20% of GDP, a lower level than other ASEAN countries, showing a low possibility of financial insolvency (Figure 5).

Although the government needs to continue to make tight fiscal management, it is hard for the government to reduce expenditures due to indispensable outlays for infrastructures to promote a sustainable economic growth. Also an increase of expenditures will be inevitable for the moment because following the rise of international crude oil prices the government plans to reintroduce fuel subsidies it had once abolished and also because extra expenditures are expected to be incurred associated with the 2019 presidential election.

On the other hand, the GDP share of revenues remains at a 10% level, which is lower than in other ASEAN members, and the government is promoting to reform tax revenues that account for 80% of total revenues (Figure 6). The tax authorities have been promoting to improve the taxation system through the "Tax Amnesty<sup>2</sup>" measures which were introduced in the middle of 2016 and it grasped the undeclared assets of high income earners by 2017. As tax exemption and reduced rates had been applied until 2017, the tax revenues targeted in the medium-term revenue strategy (MTRS) have not been secured yet. Currently it plans to raise tax rates by 2022 and to develop legal systems aimed at improving the means for tax collection, whose effectiveness should be closely watched (Table 1).

Figure 4: Fiscal Balance and Revenues

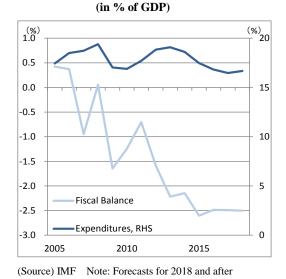
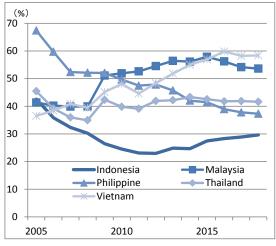


Figure 5: Government Debt Outstanding in ASEAN Countries (in % of GDP)

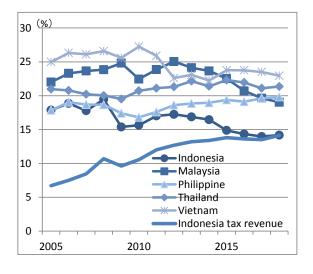


(Source) IMF Note: Forecasts for 2018 and after

<sup>&</sup>lt;sup>2</sup> It is a system under which residents in Indonesia were exempted from tax obligations, surcharges and criminal punishment to be applied prior to the previous year-end if they declared their taxable assets to the authorities within the period between July 2016 and March 2017.

Figure 6: Revenues in ASEAN Countries
(in % of GDP)

Table 1: Impacts of Fiscal Policies up to 2022



Policy Options		In percent
	Policy Options	of GDP
Total	Revenue	3%
	Value-added tax	1%
	Excise taxes	1%
	Corporate income tax	0.5%
	Personal income tax	0.3%
	Property tax	0.2%
Total	Expenditure	2.7%
	Infrastructure	1.3%
	Education	0.8%
	Health	0.6%
	Social Assistance	0.1%
	Other	-0.1%

(Source) IMF Note: Forecasts for 2018 and after

(Source) IMF

### 2. Overview of the economy: External balance and foreign exchange rates

### (1) Increasing inflow of portfolio investment amid the continued current account deficits

The current account of Indonesia fell into deficit in 2012 mainly because the trade surplus narrowed due to increased imports associated with expansion of domestic demand and decrease of commodity exports including palm oil reflecting stagnant resource prices (Figure 7). In addition, the deficit of the primary income balance has widened in recent years due to increased repatriation of profits to headquarters by the foreign companies that invested in Indonesia, resulting in the continuation of the current account deficits at around 2% level of GDP. In 2018, the current account deficit is expected to widen as imports and the deficit of the primary income balance continue to increase although exports will also increase following the recovery of resource prices.

Reflecting the continued current account deficits, financial account deficit (capital inflows to Indonesia from overseas) has also tended to expand (Figure 8). Since 2010, the foreign acquisition of Indonesian assets had increased to widely exceed the Indonesian acquisition of foreign assets with inflow of portfolio investment especially increasing in the last several years supported by the development of its financial market. However, in the first and second quarters of 2018, the inflow of portfolio investment declined reflecting the monetary tightening in advanced economies led by the U.S. (Figure 9).

Figure 7: Current Account Balance and its Composition

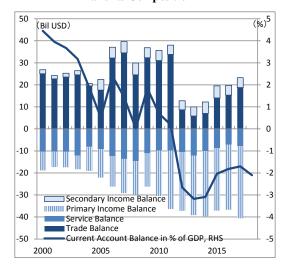
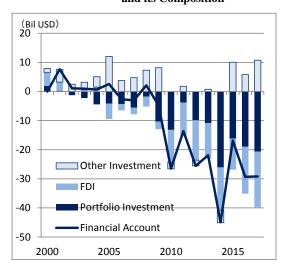


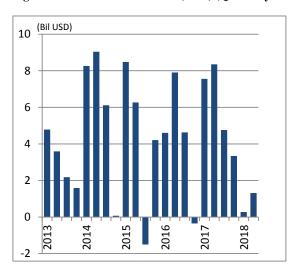
Figure 8: Financial Account Balance and its Composition



(Source) IMF Note: Forecasts for 2017 and after

(Source) IMF Note: Forecasts for 2017 and after

Figure 9: Portfolio Investment (Debt) (Quarterly bases)



(Source) Bank Indonesia

# (2) Increase of external debt contained while ratio of foreign holding of government bonds rising

The external debt of Indonesia, while increasing moderately, has remained at around 35% of GDP, well in line with its economic size (Figure 10). By debtor, although the external debt outstanding of the government has been on a mildly rising trend, sound fiscal management has been maintained based on the National Fiscal Balancing Act as was explained above.

By financing means, the financing of government external debt has been changing from borrowings to government bonds (Figure 11). Ratio of foreign ownership has been rising year by year, exceeding 40% in 2017 and after (Figure 12). Against the backdrop of strengthened

global moves to sell assets of emerging markets, the ratio has been declining a bit, but the outstanding of foreign holdings of government bonds stood at around IDR 800 trillion (800 trillion rupiahs) as of August 2018, maintaining the level at the beginning of the year.

Figure 10: External Debt by Debtors

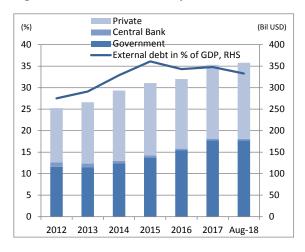
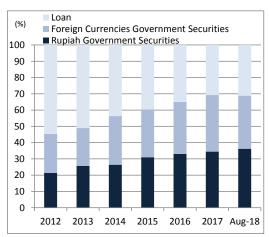
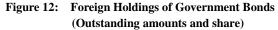


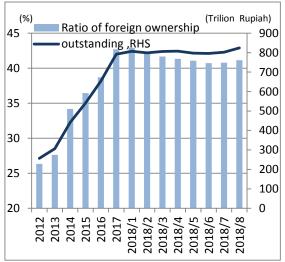
Figure 11: External Public Debt Outstanding



(Source) Bank Indonesia

(Source) Bank Indonesia





(Source) Bank Indonesia

# (3) Government and Central Bank implementing policy measures to prevent a plunge of the rupiah rate

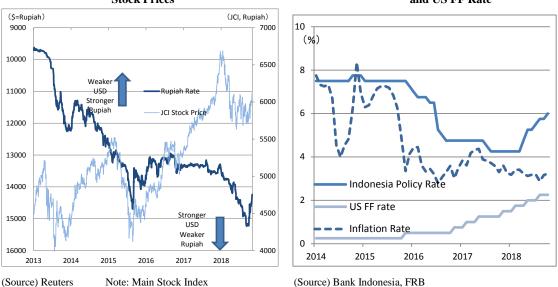
Following the rise in the Federal Fund rates (FF rates) in the US as well as the US-China Trade conflicts and increased internal uncertainty in Turkey, risks in the global financial markets have risen, pushing downward the exchange rate of the rupiah against the dollar (Figure 13). After the rupiah was traded at around IDR13,500 per dollar at the start of the year, it renewed in

October 2018 its lowest rate in the last 20 years on the order of IDR15,000 despite the efforts by the government and the central bank to prevent its rapid declines through implementing various measures to stabilize the currency rate including the hikes of policy rate<sup>3</sup>, intervention in the exchange market, those to restrict imports, introduction of new financial products and rules, etc. (Table 2) Although the rupiah is picking up reflecting these measures by the government, the exchange rate of the rupiah against the dollar will continue to be vulnerable to a downward pressure in 2019 as the Fed is expected to maintain its normalization stance. The main stock price index of Indonesia also started to fall in 2018, revealing a sense of caution of market participants against a rise in interest rates.

On the other hand, inflation has remained within the target range of 2.5-4.5% set by the central bank helped by price stabilization measures of the government and monetary policy of the central bank, although there remain concerns over a sharp rise in import prices reflecting rising international crude oil prices and depreciating rupiah rates (Figure 14) The central bank makes it clear to keep watching carefully the developments of the economy and exchange rates and take actions including policy rate hikes whenever the local currency continues to fall.

Figure 13: Exchange Rate of Rupiah (against US dollar)
Stock Prices

Figure 14: Inflation, Indonesia Policy Rate and US FF Rate



 $^{3}$  7-day reverse repurchase rate

Table 2: Measures implemented by the government and central bank in 2018 to stabilize the currency

Monetary Policy	From May	The hikes of policy rate six time. From 4.25% to 6.00%
FX Policy	Right time	Intervention in the exchange market. The official foreign reserves declining by \$8.1 billion to the outstanding of \$122.9 billion at the end of October 2018
	From Aug	Postpone the big government projects needed to import of capital goods
Import restriction	From Sep	Require all diesel fuel used in the country contain biodiesel to boost palm oil consumption
Folicy	From 13th Sep	Imported consumer goods that have locally–produced substitutes are imposed additional import income tax or duty
	Oct	Conclude a bilateral swap arrangement of USD 10 billion equivalent with Monetary Authority of Singapore
financial products and rule	Oct	Amndment of Bilateral Swap Arrangement between Japan enables Indonesia to swap its local currency against the Japanese Yen in addition to the US dollars
	From Nov	Launch a domestic rupiah non-deliverable forwards market

(Source) Various reports

### 3. Analysis of risks for capital outflows from Indonesia

The uncertainty of the world economy has risen due to the rise of the FF rates and protectionism in the US, with investors moving to avert emerging economy risks. In Indonesia, the local currency sharply plunged at a time of the Asian currency crisis in the late 1990s and the start of tapering in 2013 of the US quantitative monetary easing (taper tantrum<sup>4</sup>) leading to a withdrawal of capitals by overseas investors. Therefore, Indonesia tends to be regarded as one of the countries with high risks of capital outflows. As was seen in the previous chapter, further decline of the rupiah is feared despite its mild economic growth, which deserves continued attention. In this chapter, I will examine the extent of the risk, while comparing it with the cases in other emerging economies as well as with its past economic conditions.

# (1) Relation of the deterioration of the current account and rising inflation with the depreciation of the currency—a comparison with other countries

The rupiah is one of the currencies of five emerging economies ("Fragile five" <sup>5</sup>) that depreciated following the taper tantrum in 2013. Those countries have fragile macroeconomic structures that rely on foreign investment due to the deficits in the financial account together with high inflation rates, while their unstable political situations are believed to tend to invite outflows of invested capital. In 2018, all of the currencies of the fragile 5 started to decline with the Turkish lira especially plunging sharply (Figure 15). However, Indonesia has a smaller current account deficit than Turkey with lower inflation rates (Table 3). The decline of the

\_

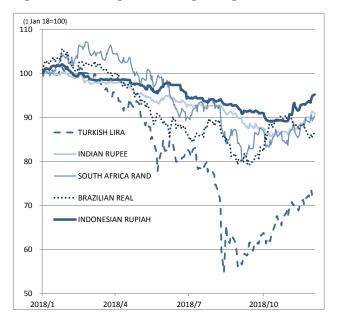
<sup>&</sup>lt;sup>4</sup> A market phenomenon where emerging currencies sharply dropped with capital outflows from emerging economies following the speech of the former Fed Chairman Mr. Bernanke to reduce asset purchases in its unconventional monetary easing.

<sup>&</sup>lt;sup>5</sup> A term given by a major US securities company to the currencies of emerging countries which are highly dependent on foreign investment, namely, Brazilian real, Indian rupee, Indonesian rupiah, Turkish lira, and South African rand.

Indonesian rupiah remains relatively smaller as Indonesia has no big domestic issues and the factors for the decline are limited to external events.

Figure 15: Exchange rates of Fragile 5 (against the US dollar)

**Table 3: Economic Indicators in Fragile 5** 



	Current Account,% GDP			
	2017 2018 2019			
Brasil	-0.5	-1.3	-1.6	
India	-1.9	-3.0	-2.5	
Indonesia	-1.7	-2.4	-2.4	
South Africa	-2.5	-3.2	-3.5	
Turkey	-5.6	-5.7	-1.4	

	CPI Average %		
	2017 2018 201		
Brasil	3.4	3.7	4.2
India	3.6	4.7	4.9
Indonesia	3.8	3.4	3.8
South Africa	5.3	4.8	5.3
Turkey	11.1	15.0	16.7

(Source) Reuters, Bank Indonesia

Note: As of 2018/12/3 for the latest figure.

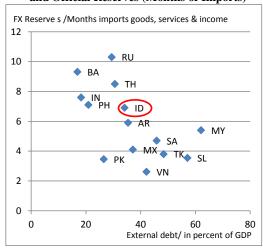
(Source) IMF

### (2) Evaluation of expanding external debt outstanding and foreign exchange reserves—comparison with other countries

Indonesia has a lower level of external debts to GDP, at 30% range backed with substantial accumulation of official foreign reserves amounting to more than 6 months of imports (Figure 16). The official foreign reserves started to decline from early stage of 2018 due to the intervention in the foreign exchange market by the Bank Indonesia to cope with the selling pressures, cumulatively declining by \$17 billion to the outstanding of \$115 billion at the end of September 2018, which still widely exceeds the volume of short-term external debts of about \$50 billion. Therefore, it is seen that the possibility is low for the country to fall into default on its debts as it had experienced at the time of the Asian currency crisis (Figure 17). Further, according to the debt repayment schedule compiled by the IMF, it is regarded that Indonesia, unlike Argentine and Sri Lanka, will not face with obligations of a large amount of debt repayments or roll overs during the next twelve months (Table 4). The international rating agencies raised their ratings on Indonesia to an investment grade from 2017 to the first half of 2018, as the resiliency of the Indonesian economy has improved with its sound economic fundamentals (Table 5). Indonesia's investment environment is coming closer to the levels in other ASEAN countries. Although the rating agencies lowered the ratings for Turkey and

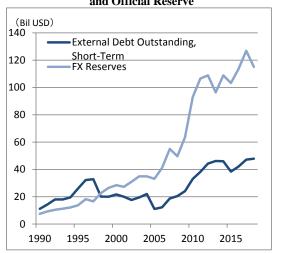
Argentine in the latter half of 2018 as their currencies sharply depreciated accompanied by rapid capital outflows, they maintained its evaluation (rating) of investment grade for Indonesia. In September 2018, Fitch Ratings, a major rating agency, maintained Indonesia's sovereign credit outlook as "stable", evaluating that Indonesia has low level of government debt with sufficient foreign exchange buffers and its currency stabilization policies have been effective.

Figure 16: Emerging Economies' External Debts and Official Reserves (Months of Imports)



(Source) IMF、WB Note: Figures for 2017

Figure 17: Indonesia's Short-term External Debts : and Official Reserve



(Source) Bank Indonesia, WB Note: Latest figures for reserves at October 2018 and short-term debts at August 2018

Table 4: Payment Schedule of FX Reserves due in a year

Table 5: Ratings Assigned to ASEAN Countries by Major Rating Agencies

		Predetermined short-term net drains on foreign currency assets, More than 1 (Bil \$)			Contingen	
	Total Reserve Asset (Bil \$)	Securitie s, and	short positions in forwards and futures	long positions in forwards and futures	Other	term Net Drains on Foreign Currency Assets
Turkey	84.7	-12.7	-4.2			-29.3
Indonesia	114.8	-24.8	-5.3			-6.0
Thailand	204.5	-0.2	-0.4	32.3		12.5
Philippine	76.6	-7.2				-1.6
South America	50.4	-2.9		1.4		-0.3
Mexico	177.1	-16.8				93.8
Malaysia	103.3	-0.2	-19.8			-0.1
Argentina	49.0	-66.8			-11.3	
Sri Lanka	7.1	-5.8	-0.7		-0.0	-0.2
Russia	459.2	-1.8				
India	402.7	-6.1	-12.2	10.8		-1.1

(Source) IMF

	S&P	Moody's	Fitch	TE
Indonesia	BBB-	Baa2	BBB	46
Indonesia	2017/5	2018/4	2017/12	
Malaysia	A-	A3	A-	66
Philippine	BBB	Baa2	BBB	53
Thailand	BBB+	Baa1	BBB+	63
Vietnam	BB-	Ba3	BB	29

(Source) IMF Note: Dates refer to the latest reviews for Indonesia

### (3) Comparison with the past experiences of Indonesia

After the global financial crisis, international capital flows shifted from indirect financing such as bank borrowings to direct financing. Also in the domestic market in Indonesia, funding from capital market has been increasing, with a heightened possibility that capital will flow out from Indonesia through its capital market when risks start to rise. AMRO (ASEAN+3 Macroeconomic Research Office) computed in its report<sup>6</sup> issued in October 2018 the volatilities of foreign exchange rates, bonds, and stocks for three phases when the pressure of capital outflows from Indonesia rose in recent years (i.e., global financial crisis, taper tantrum, and China shock<sup>7</sup> that took place from August to September 2015) and compared them with the values in early 2018 (January to April). They found that the decline of foreign exchange rates and stocks was smaller in early 2018 and the foreign holding ratio of bonds and stocks decreased less than in the past three episodes (Table 6).

At the same time AMRO conducted an extreme scenario exercise based on the GFC episode and simulation results showed that external spillovers via financial markets could lead to net capital outflows of \$28.1 billion or about 2.6 percentage points of GDP between the end-2017 and the end-2018 (Table 7). Even in that scenario, however, it is estimated that the foreign reserves would remain adequate at about \$102 billion, well above the conventional metrics of 3 months of imports, as well as standing at 108.2% of ARA<sup>7</sup> metrics which is within the range of 100-150 % recommended by the IMF.

Accordingly, it is considered that Indonesia has increased its resiliency to absorb capital outflow risks even in such an extreme case, supported by the ample foreign reserves accumulated in the past years.

Table 6: Capital flow shocks: Past Experience and AMRO scenario

		GFC 2008	Taper tantrum May 2013	RMB depreciation Aug-Sep 2015	Volatile global condition Jan-Apr 2018
Exchar	nge rate				
	IDR Spot rate (% change, nominal)	-7.4	-11.5	-12.8	-3.2
Bond					
	LCY bonds held by foreigners (% changein rupiah value)	-17.9	-6.6	-2.6	-2.8
	Gov't bond yield (change in bps)	+440	+345	+180	+60
Short-	term debt				
	Short-term debt rollover ratio (%)				
Equity					
	Equities held by foreigners (% change in rupiah value)		-23.2	-20.1	-7.9
	Jakarta Composite Index(% change)	-54.8	-17.2	-19	-9.3

(Source) AMRO Note: Stock figures refer to Jakarta Composite Index

<sup>6</sup> AMRO Indonesia Annual Consultation Report 2018, October, 2018

<sup>&</sup>lt;sup>7</sup> Stands for Assessing Reserve Adequacy which is an indicator created by the IMF for emerging economies to measure adequate levels of reserves. It is computed as percentage of aggregates of 5% of exports, 5% of broad money, 30% of short-term debts and 15% of other debts against the actual official foreign reserves. Reserves within 100-150 % of the new ARA metric are considered adequate.

Table 7: Impacts of Extreme Scenario on Capital Outflow and Reserves

Bil USD	2017 (Outstanding)	Capital outflows in 2018
IGBs held by foreign investo	61.7	5.6
Short-term debt of the bank	17.6	5.3
Foreign holding of equities	148.5	17.2
Total impacts		28.1
GDP%		2.6%
FX reserves, end-2017	130.2	
ARA%	138%	
Estimated reserves, asset er	nd-2018	102
ARA%		108.2%

(Source) AMRO

### Conclusion: Noteworthy organizational improvement implemented by the authorities

In Indonesia, presidential elections and legislative elections are scheduled in April 2019 and the latest opinion polls show that the incumbent president Jokowi is taking the lead to be reelected. As he can win the votes of Muslim conservatives by choosing as his running mate Ma'ruf Amin, Chairman of the Indonesian Ulema Council which controls Muslem groups in Indonesia and also can suppress any demonstrations, there will be no situations expected that will lead to political disturbances.

On the other hand, the Indonesian economy has experienced depreciation of the local currency since around the middle of 2018, albeit by a mild one and the rising pressure of capital outflows. However, differing from other emerging economies, the Indonesian government has been addressing these issues by taking pre-emptive measures in cooperation with the central bank.

In particular, to stabilize the exchange rates, it introduced import restraint measures in addition to foreign exchange interventions by the central bank. Also the central bank increased its policy rates in a way of "pre-emptive, front-loading, ahead of the curve" policy actions.

The financial market welcomed these coordinated and prompt actions by the government and the central bank, keeping the depreciation of the currency smaller than in other emerging economies. In addition, to try to reduce the economic slowdown risks associated with the repeated increases of policy rate, the Bank Indonesia introduced in August 2018 macro prudence policy<sup>8</sup> that will alleviate LTV ratios.

Looking ahead, although it will require prompt responses by the government and the central bank when needed to deal with the depreciation of the currency and increasing pressure for

-

<sup>&</sup>lt;sup>8</sup> The bank used to implement a regulation to require a borrower of mortgage loans a certain level of down-payment based on the LTV (loan to value ratio, i.e., ratio of a loan against the housing value). However, the bank abolished the regulation in August 2018 to activate the real estate market.

capital outflows, at this moment there is no substantial decline of economic growth nor rapid rise of inflation, with the economy regaining the stability. In addition, Indonesia's external debt remains at low level with substantial accumulation of official reserves, which shows an increased resiliency of the economy to external shocks.

Learning from the lessons of the Asian currency crisis and aiming at securing stability of the economy and the market, the Bank Indonesia has been improving its emergency liquidity provision system. Specifically, it has concluded bilateral swap arrangements with four countries<sup>9</sup> in addition to the participation in the regional financial cooperation framework of Chang Mai Initiative, thus preventing credit instability of the local currency and at the same time showing externally its strengthened cooperative relations with other countries.

As seen above, Indonesia is making efforts to steer its economy toward stabilization while strengthening the cooperative relations with other countries coupled with collaboration between the government and the central bank. Even if there were a change in the administration following the coming presidential election, it is considered that the possibility is low for the economy to destabilize as the country has improved its institutional systems so that it can appropriately deal with a depreciation of the currency and rising pressure on capital outflows.

#### References

- "2018 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Indonesia", February 2018, IMF
- "Indonesia: Selected Issues", February 2018, IMF
- ➤ AMRO Indonesia Annual Consultation Report 2018, October 2018

This report is intended only for information purposes and shall not be construed as solicitation to take any action such as purchasing/selling/investing financial market products. In taking any action, each reader is requested to act on the basis of his or her own judgment. This report is based on information believed to be reliable, but we do not guarantee its accuracy. The contents of the report may be revised without advance notice. Also, this report is a literary work protected by the copyright act. No part of this report may be reproduced in any form without express statement of its source.

Copyright 2019 Institute for International Monetary Affairs (IIMA) (公益財団法人 国際通貨研究所)

All rights reserved. Except for brief quotations embodied in articles and reviews, no part of this publication may be reproduced in any form or by any means, including photocopy, without permission from the Institute for International Monetary Affairs.

Address: 3-2, Nihombashi Hongokucho 1-Chome, Chuo-ku, Tokyo 103-0021, Japan

Telephone: 81-3-3245-6934, Facsimile: 81-3-3231-5422 〒103-0021 東京都中央区日本橋本石町 1-3-2

電話: 03-3245-6934 (代) ファックス: 03-3231-5422 e-mail: admin@iima.or.jp URL: http://www.iima.or.jp

<sup>&</sup>lt;sup>9</sup> Australia, Japan, Korea and Singapore