# International Capital Flows and Vulnerabilities of the Indonesian Economy

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**Abstract:**

As a result of large and persistent capital inflows after the Global Financial Crisis, Indonesia's currency, the rupiah (Rp), was considerably affected by the end of Quantitative Easing. In 2013 when the United States suggested an exit from monetary easing, Indonesia's monetary policies had the positive effect of alleviating the impact by gradually raising interest rates and allowing the rupiah's exchange rate to be remain flexible without conducting aggressive market interventions. However, the rupiah remained weak. Due to Turkey's lira crisis in August 2018, the rupiah depreciated further. Although Indonesia has tried to stabilize the rupiah through interest rate increases and active foreign exchange interventions, its current account deficit has expanded because of an increase in imports for infrastructure investment and the depreciation of the rupiah accelerating. In order to reduce the current deficit, Indonesia was forced to take policy measures that could affect economic growth negatively, such as the introduction of import restrictions. Because the Federal Reserve indicated that it would pause interest rate increases, and because Indonesia's monetary policies and measures proved effective, the rupiah has firmed.

Keywords: International capital movement, Foreign exchange rate, Monetary Policy, Indonesia, Fragile 5
JEL Classification: G10, F32, O53

## I. Introduction

Indonesia is a resource-rich country with the world's fourth largest population of 260 million people. After the global financial crisis of 2008, neighboring countries experienced negative growth, but Indonesia grew steadily, supported by large domestic demand. Indonesia's stable economic growth gained attention around the world and labeled Indonesia a promising emerging country. At the same time, Indonesia was considered one of the countries that would be largely affected by the termination of the U.S. monetary easing policy (Eichengreen and Gupta 2015).

Indonesia's response to the depreciation of the rupiah in 2013 was relatively rapid because Indonesia was fully aware of the serious impact of capital outflow on the economy based on the experience of the Asian currency crisis in 1997. Since the "Tapering Talk" in May 2013, which suggested the possibility of the US Federal Reserve reducing its securities purchases, Bank Indonesia, the Central Bank of Indonesia, gradually raised the reference

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rate in five steps from June 2013 in consideration of the domestic economy. While the rupiah continued to weaken in 2014, Bank Indonesia was limiting intervention in the foreign exchange market to smooth volatility and ensure orderly market conditions (IMF 2015). The limiting intervention prevented further deterioration of the current account (IMF 2016, Basri 2016) and the rupiah passed through the early stage of the end of the quantitative easing policy relatively well. However, in 2018, Indonesia was again under pressure of capital outflow and depreciation of the rupiah. Unlike in 2013, Bank Indonesia continued to intervene in the foreign currency market.

From 2014, the portfolio investment inflow (net) had continued to increase, however, the increase in capital inflow was accompanied by the risk of capital outflow when the global economic environment changed. Since 2018, Indonesia has confronted that exact risk. The Indonesian economy is always considered vulnerable to external shocks because of its chronic current account deficit. One of the factors of its vulnerability is in its small financial sector compared to the scale of the real economy. Bank lending in Indonesia is only 36% of the gross domestic product (GDP) in 2018 and the ratio of market capitalization to GDP is only 47% of the GDP; the bond market, consisting mainly of government bonds is only 16% of GDP. Liquidity of the market is low and 40% of government bonds are held by foreigners. Therefore, the markets are vulnerable to sudden capital outflows.

Despite these structural problems, the international ratings agencies, Moody's, S&P, and Fitch, have maintained their views on the Indonesian economy regarding raising the Indonesian long-term government bond rating to investment grade. In September of 2018 while the depreciation of the rupiah progressed, Fitch affirmed Indonesia's sovereign credit rating at BBB and maintained a stable outlook. However, once the environment of the international economy changes, as an emerging economy Indonesia is vulnerable.

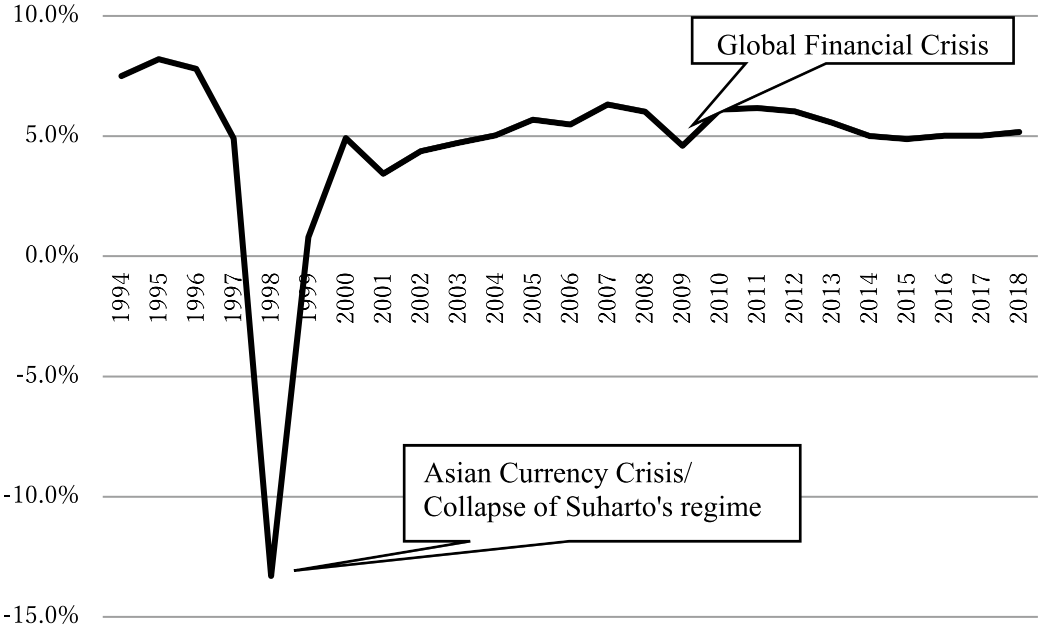
In this paper, issues of Indonesia such as the problem of international capital movement and the rupiah depreciation of 2013 to 2018 are explored. In Section II, the Indonesian economy is overviewed. In Section III, the situation of capital outflow from Indonesia is reviewed and examined, including the government and the monetary authority's responses to external shock. In Section IV, vulnerabilities of the Indonesian economy are analyzed, and Section V provides a concluding summary.

## II. An overview of the Indonesian economy

### *II-1. Dependent on domestic demand*

In 2009, after the Global Financial Crisis and amid neighboring countries' negative economic growth, Indonesia's economy grew by 4.6%, and so Indonesia began to attract global investors' attention. The GDP growth rate during 2010 to 2012 exceeded 6% and the Indonesian government was predicting future economic growth of 7-8%. In addition, Indonesia is a country with a large young workforce and an abundance of natural resources. These features brighten the outlook for the Indonesian economy, so investments continue to go to In-

Figure 1. GDP Growth Rate (%)




Source: Badan Pusat Statistik

donesia.

Indonesia's GDP in 2018 was Rp 14,837 trillion, equivalent to USD 1,042 billion, which makes Indonesia's the 16th largest economy in the world. The GDP growth rate was 5.2% in 2018 (Figure 1). Indonesia has the fourth largest population in the world, having 260 million people. The growing middle class supports domestic consumption, which accounts for 56% of the GDP. The ratio of exports to GDP is not as large as it was in 2018 at 20%, and imports account for 22% of GDP. After having maintained a trade surplus until 2017, Indonesia recorded a deficit in 2018. Indonesia is an oil producing country, but output is decreasing year by year while domestic consumption increases. Therefore, Indonesia has become a net importer of oil. Current major export products are natural resources such as coal, palm oil, natural gas, etc., rather than petroleum. The fact that exports account for only 20% of the GDP and most exports consist of primary products indicates that Indonesia is still not yet incorporated into the global production network.

On the other hand, the Indonesian economic fundamentals are relatively stable. The unemployment rate is 5.3% (August 2018), the poverty rate has decreased to 9.6% (August 2018), and the consumer price index has been in the 3% range.

Since the beginning of 2018, the rupiah has continued to depreciate nearly to the level it was in the time of the Asian currency crisis. At that time of crisis, the rupiah's lowest value was around Rp 16,000 per dollar because of the political and social turmoil that had resulted in the collapse of the Suharto regime in May 1998. For one month after that, the exchange market fluctuated drastically, even within a day, from Rp 11,300 to Rp 16,000 per dollar.

Figure 2. Exchange Rate to the Dollar, 1996-2018


Source: Factiva

Figure 2 shows the trend of the rupiah currency rate to the dollar from 1997 to 2019. The value of the rupiah has continued to decrease since a possible tapering off of quantitative easing policy was suggested in May 2013. The exchange rate reached the same lowest level in 1998 and continued to accelerate.

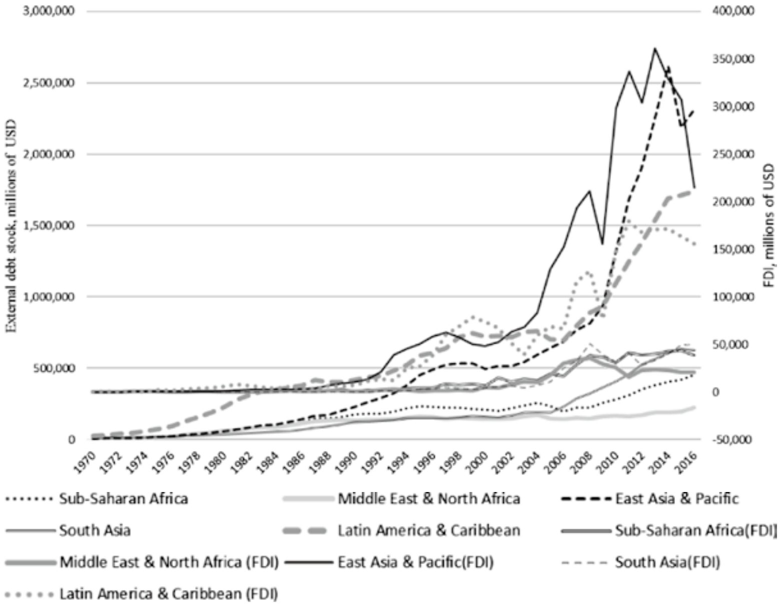
## *II-2. Capital inflows and outflows*

The Global Financial Crisis substantially changed the flow of capital to emerging countries, including Indonesia. The Global Financial Crisis invited excess capital into the world due to the low interest rate policy of developed countries; it went to emerging economies looking for promising investment opportunities. Figure 3 shows the changes in foreign direct investment and external debts outstanding from 1970 to 2016. After the global financial crisis of 2008, a large amount of capital flowed into East Asia and Latin America.

From the Asian currency crisis until the Global Financial Crisis, country risk in Indonesia increased due to political turmoil, terrorism, and an unstable political situation. Capital inflows were therefore sluggish, both in direct investment and in portfolio investment. Since the Global Financial Crisis changed the trends in capital flows around the globe, investments to Indonesia started to increase in both direct and portfolio investments (Figure 4). It is worth mentioning that other investment, which is usually negative, also became positive from 2010 to 2014. However, massive capital inflows required an attitude of caution due to the possibility of sudden reversals when economic circumstances turn negative.

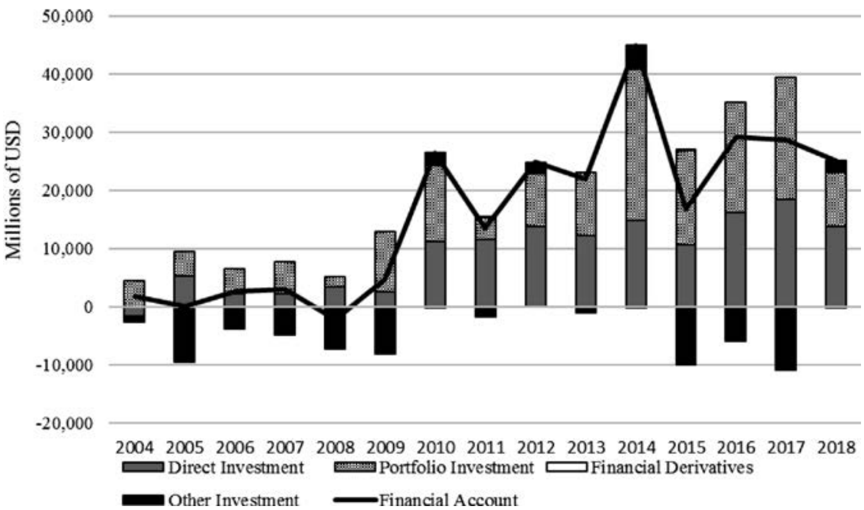
To avoid this risk, Bank Indonesia maintained an adequate level of foreign exchange reserves (Bank Indonesia 2009) (Figure 5). The position of the foreign exchange reserves at the end of 2001 was USD 26 billion, which amounted to USD 120 billion by the end of 2018. In the appropriate Foreign Reserve Assessment (Assessing Reserve Adequacy) indi-

Figure 3. Foreign Direct Investment and External Debt Stock, 1970-2016




Source: World Bank

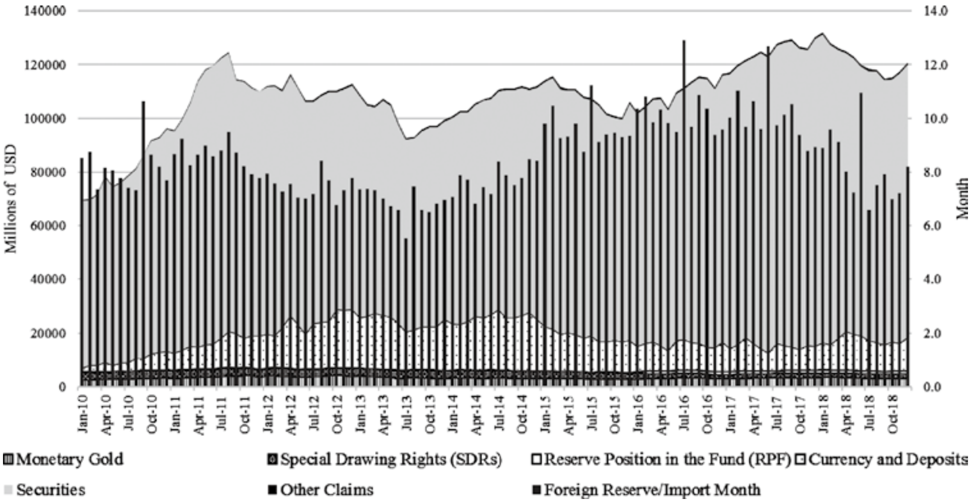
Figure 4. Balance of Payments: Financial Account, 2004-2018




Source: Bank Indonesia

cated by the IMF, Indonesia is at 1.38 (May 2018); if it exceeds 1, it is evaluated to be appropriate. However, it is not clear which amount is adequate to prevent outflow of capital at the time of an emergency; therefore, the amount of foreign exchange reserves can be a rough indication.

Figure 5. Foreign Exchange Reserve Asset Position




Source: Bank Indonesia

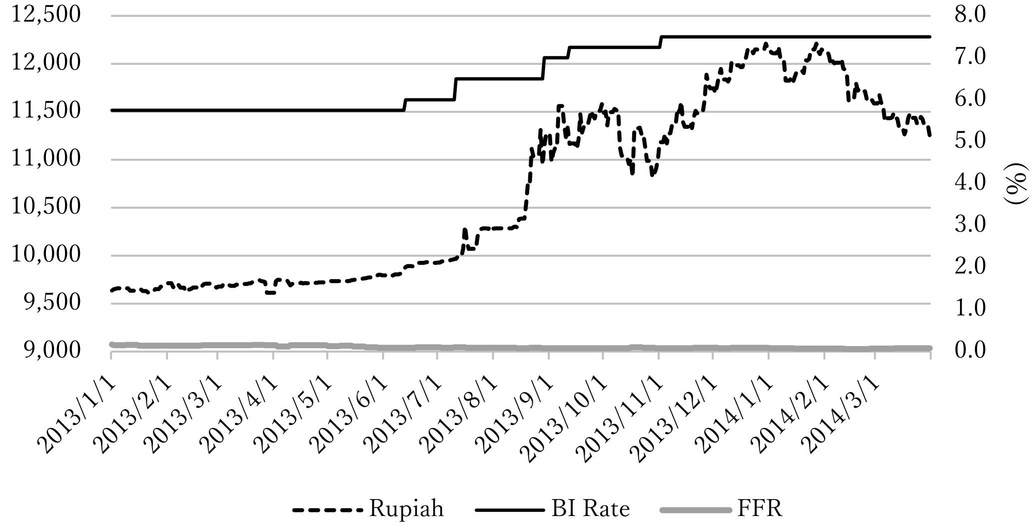
## III. Capital outflows and the response of the central bank and the government

### *III-1. Measures in response to the tapering talk*

The tapering talk in May 2013 had a huge impact on the exchange rate and financial markets in emerging markets. There was concern that some emerging countries might be heading towards a full-blown crisis like that in Mexico in 1994 and Asia in 1998 (Eichengreen and Gupta, 2015). Subsequently, emerging market currencies began to decline, and especially the Indonesian rupiah declined sharply. Indonesia suffered considerable damage due to the Asian currency crisis, and it fell to the current account deficit in 2012, which amplified the depreciation of the rupiah. In addition, having a fiscal deficit of 2.3% of GDP worsened the prospects of the Indonesian economy as a typical twin deficit country together with the other four current account deficit countries, the so called "Fragile 5," and the rupiah became the target of speculative selling.

In order to cope with the depreciation of the rupiah, Bank Indonesia decided to raise interest rates at an early stage and was not aggressive in coping with rupiah depreciation (Bank Indonesia, 2015). Bank Indonesia raised the reference rate (Bank Indonesia Rate) from 5.75% to 6% on June 13, 2013 (Figure 6). The rate was continuously raised to 6.5% and 7% in August, 7.25% on September 12, and 7.5% on November 12. Bank Indonesia increased interest rates five times, which led to a total increase of 1.75% within six months. In August 2013, Bank Indonesia announced a monetary policy aiming to effectively boost the supply of foreign exchange as well as deepen the financial market. The measures included flexibility to address the depreciation of the rupiah and the current account deficit, flexibility of the term of foreign exchange deposits, loosening up foreign exchange-buying restrictions for exporters selling foreign exchange from export proceeds, relaxation of foreign exchange swap regulations on commercial banks, exclusion of non-resident rupiah accounts from commercial banks' short-term external debt classification, and issuance of the Certificate of Deposit - Bank Indonesia (SDBI).

Figure 6. Foreign Exchange Rate and Interest Rate, 2013-2014




Source: Bank Indonesia, Factiva

During this period, while the interest rate was raised gradually, Bank Indonesia did not intervene aggressively in foreign exchange markets. This resulted in suppression of imports, and it was evaluated to prevent the further deterioration of the current account. In addition, it was valued that the yield on government bonds was left to the market to suppress the outflow of investment funds (IMF 2016). In June 2013, the government raised the subsidized fuel price and revised the electricity prices. These policies were effective in curbing the expansion of the fiscal deficit (IMF 2016).

## *III-2. The impact of devaluation of the Chinese renminbi in 2015*

While Indonesia was affected by the end of quantitative easing in 2013, the country handled the impacts of the external shock relatively successfully. However, the rupiah continued to fall against the dollar. On August 21, 2015, the rupiah hit a 17-year low at Rp 14,000 per dollar, and on September 28, it fell to Rp 14,750 due to the sharp decline of emerging market currencies. This phenomenon is attributable to the renminbi devaluation of August 11, 2015. The currencies of the resource exporters Indonesia and Malaysia declined above all others. Following this decline, Bank Indonesia continued market intervention while maintaining the policy interest rate at 7.5%. As a result of continuous intervention, the foreign exchange reserves decreased to USD 105.9 billion from USD 111.9 billion as of the end of 2015 at a 5.3% decline from the previous year.

In order to maintain the rupiah's stability, in June 2015 the bank's net open position (NOP) was relaxed by removing the requirement for banks to maintain NOP every 30 minutes. After the devaluation of the renminbi in August 2015, Bank Indonesia decided to manage rupiah liquidity through open market operations as well as market intervention in order to stabilize foreign exchange. In addition, purchasing government bonds in the short-term market and resuming issuance of 9 to 12-month central bank certificates (SBI: Sertifikat Bank Indonesia) aiming to supply longer-term funds were other measures taken. In order to curb speculative foreign currency transactions and to stabilize the rupiah, it was also decided to reduce the limit of forex purchase from USD 100,000 to USD 25,000 per customer per month, and requiring the Taxpayer Identification Number (NPWP).

In September 2015, it was announced that Bank Indonesia would intervene in the forward exchange market as well as the spot market to stabilize the rupiah. In order to manage liquidity, Bank Indonesia implemented a three-month SDBI and a two-week reverse repo of government bonds. Bank Indonesia issued foreign currency, denominated central bank securities in order to manage foreign exchange supply and demand, and strengthened reporting of foreign exchange transaction.

Furthermore, strengthening the risk management of the increasing external debt of private enterprises, from January 1, 2015, Bank Indonesia asked private companies to increase their assets denominated in foreign currency. In addition, the liquidity ratio was set at 50% in 2015 and 70% in 2016. The rupiah stability policies continued, such as obliging the use of the rupiah in the full settlements stipulated in the currency law enacted in June 2011.

As a result of this series of policies, from September 2015 the level of the rupiah appreciated from Rp 14,000 steadily to around Rp 13,500 in 2018.

### *III-3. Raising the interest rate and interventions in markets*

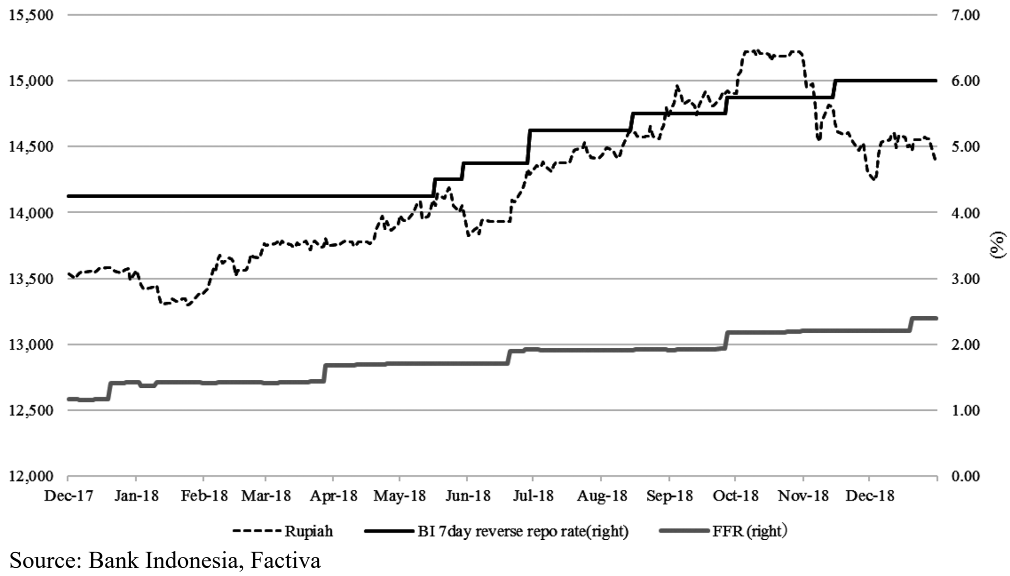
In 2018, the rise in the federal fund rate affected the emerging currency, especially in the current account deficit countries. The lowest level of the rupiah was Rp 14,828 on September 24, 2015. On April 23, 2018, when the rupiah fell closer to Rp 14,000, Bank Indonesia made currency intervention and issued a statement saying "to maintain rupiah exchange rate stability according to its fundamentals, Bank Indonesia has intervened in the foreign currency market and Sovereign Securities market to a considerable extent." However, the value of the rupiah continued to decline. On May 17, 2018, Bank Indonesia raised the 7-day reverse repo rate, which is the policy interest rate since August 2016, from 4.25% to 4.5%, ahead of the US interest rate increases, in order to maintain the value of the rupiah (Figure 7). Two weeks later, on May 30, 2018, it was raised to 4.75%. Following this increase, the exchange regained stability, but it began to fall again in response to the US interest rate increase in June 2018. Therefore, on June 27, Bank Indonesia again announced that it was ready for intervention and raised the policy interest rate to 5.25% on June 29, 2018.

Along with raising the interest rate, it also moved to strengthen bilateral swap agreements to maintain foreign exchange reserves. In March 2017, Bank Indonesia extended the bilateral swap agreement equivalent to USD 10 billion with South Korea for three years, and in August 2018, Bank Indonesia amended a USD 10 billion swap agreement with Australia. In October, the arrangement with Japan was revised and it was possible to exchange rupiah with the Japanese yen at the upper limit of USD 22.76 billion, in addition to the dollar. Bank Indonesia signed a USD 10 billion swap agreement with Singapore in October, and renewed swap agreement with China and increases the size from USD15 billion to USD30 billion in November.

However, the rupiah kept falling after that, as emerging market currencies fell as a result of Turkey's lira crisis on August 10, 2018. The interest rate was raised again by 25 bps to 5.5% on August 15. On September 26, , after the United States implemented a third rate increase in 2018, Bank Indonesia raised the interest rate further by 25 bps to 5.75% on September 27 and by 25 bps to 6% on November 15.

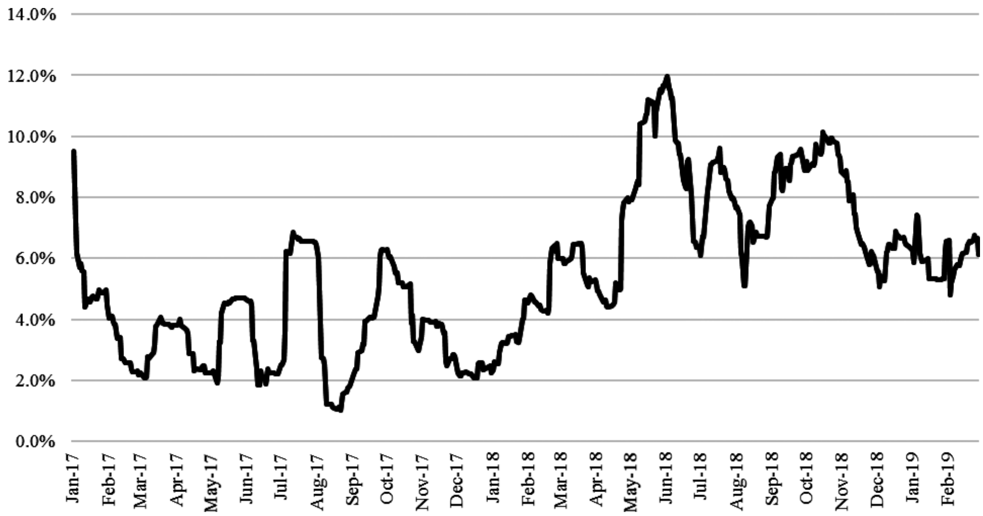
Bank Indonesia intervened in the foreign exchange market and actively purchased government bonds in order to maintain the value of the rupiah. Although Bank Indonesia bought Rp 3 trillion from the bond market in August and had purchased Rp 31.37 trillion by September 2018, yields continued to rise (Figure 8).

Figure 7. Foreign Exchange Rate and Interest Rate in 2018




Source: Bank Indonesia, Factiva

Figure 8. Yield Volatility of 10 Year Bonds, 2017-2018




Source: ADB, Asian Bonds Online

### *III-4. Background of foreign exchange market intervention*

In 2018, foreign exchange reserves decreased due to repeated intervention. Figure 5 shows the outstanding amount of foreign exchange reserves and total reserves in months of import. Currently, the foreign exchange reserves are equivalent to seven months of imports, which is well over the minimum of three months of imports considered adequate. Bank Indonesia did not intervene aggressively in 2013; however, it continued market intervention in 2018. The background of the difference in measures is the change in the global economic environment over the past five years and a change in the structure of the Indonesian economy.

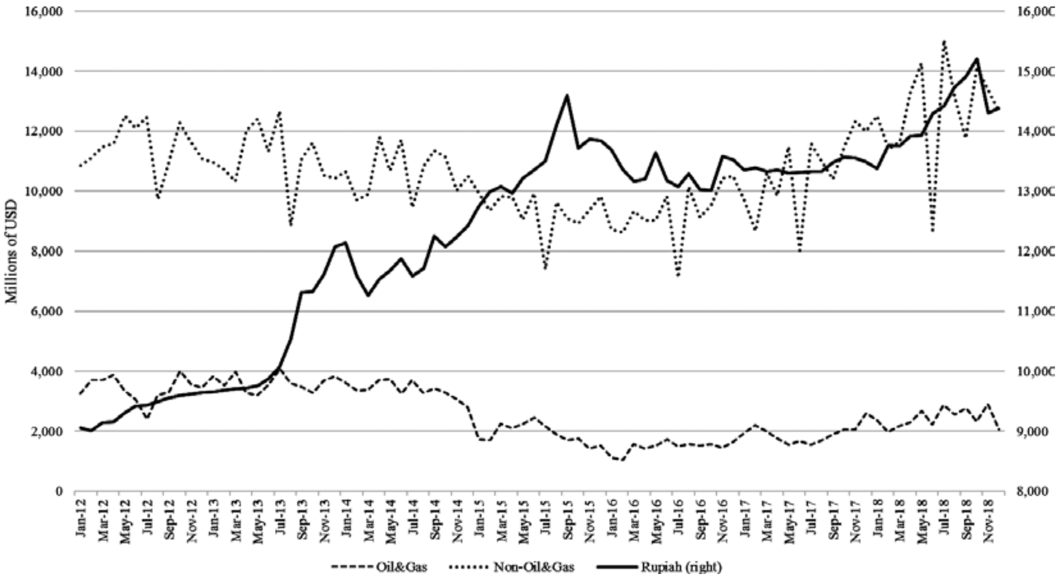
#### III-4-1. Fuel subsidies and fiscal deficits

One way to respond to the depreciation of the rupiah in 2013 was to stop the expansion of the trade balance deficit by reducing fuel price subsidies. However, in 2018, since the election campaign began for the general election and the presidential election in the following year, it has become more difficult for the Indonesian government to adopt unpopular policies. In fact, the policy of abolishing the fuel subsidy implemented immediately after President Joko Widodo took office as President in 2014 faded away and subsidies revived. Furthermore, with an eye on the presidential election, the President decided not to raise the subsidized fuel price until March 2018. Currently in Indonesia, domestically consumed oil is covered by imports, and therefore changes in international crude oil prices affect the fiscal balance directly because the government needs to fill gaps between the retail price and import prices. In that context, the domestic situation differs from the situation in 2013 when the budget deficit was suppressed by reducing subsidies.

### III-4-2. Import expansion

The current account deficit since 2012 results from an increase in imports. Imports have continued to increase since 2016.

Figure 9. Import Oil & Gas and Non-Oil & Gas and Foreign Exchange Rate, 2012-2018

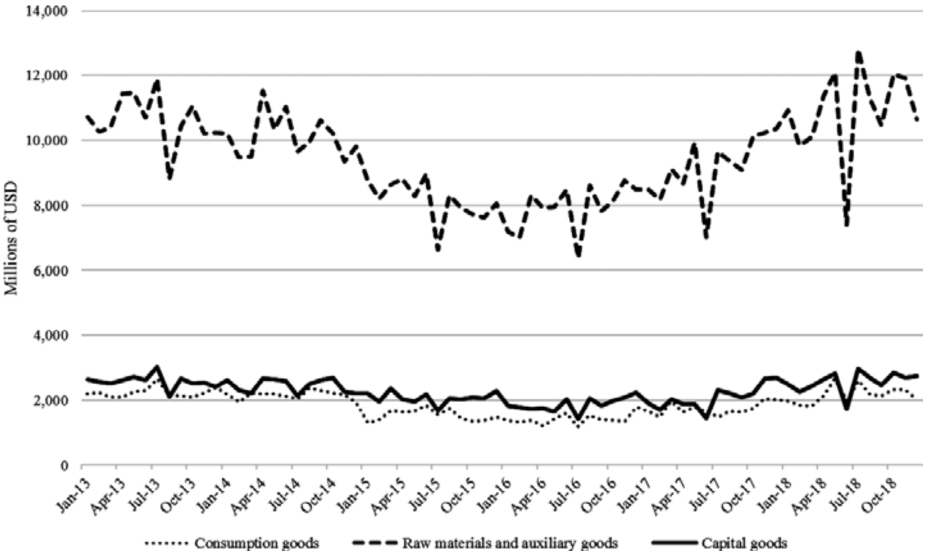



Source: Bank Indonesia, Factiva

Figure 9 shows the trends in exchange rates and imports of oil and gas, and of non-oil and gas from 2012 to 2018. Since 2015, imports of oil and gas have remained at the USD 9 billion level, while non-oil and gas imports are increasing rapidly.

Looking at imports by categories (Figure 10), imports of raw materials and intermediate goods account for about 70% of total imports and have increased since late 2016. The imports of raw materials and intermediate goods account for almost half of industrial processed goods imports, and capital goods account for 15%. The increase in imports after 2016 is mainly a result of infrastructure investment. Infrastructure investment is essential for economic growth in Indonesia, and it is the priority of the economic policy of the Jokowi administration. Unlike consumer goods, intermediary goods have not adjusted the import volume following the decline in foreign exchange rates; market intervention was implemented for this reason.

Figure 10. Import by Categories, 2013-2018




Source: Bank Indonesia

### III-4-3. Outflow of portfolio investment

In 2018, during the decline of the rupiah, portfolio investment outflows accelerated. In the second quarter of 2018, outflows of short-term government bonds amounted to approximately USD 1.3 billion, and investment in long-term bonds also decreased by half compared with the same period the previous year. In the private sector, the outflow of stocks was remarkable, and since the third quarter of 2017, USD 2 billion left the stock market each quarter. As a result, the Indonesian stock index continued to decline to below 6000 until October; it was 6594 in February 2018. In the first half of 2018, short-term debt of the private sector continued to outflow, and it reached USD 1 billion in half a year.

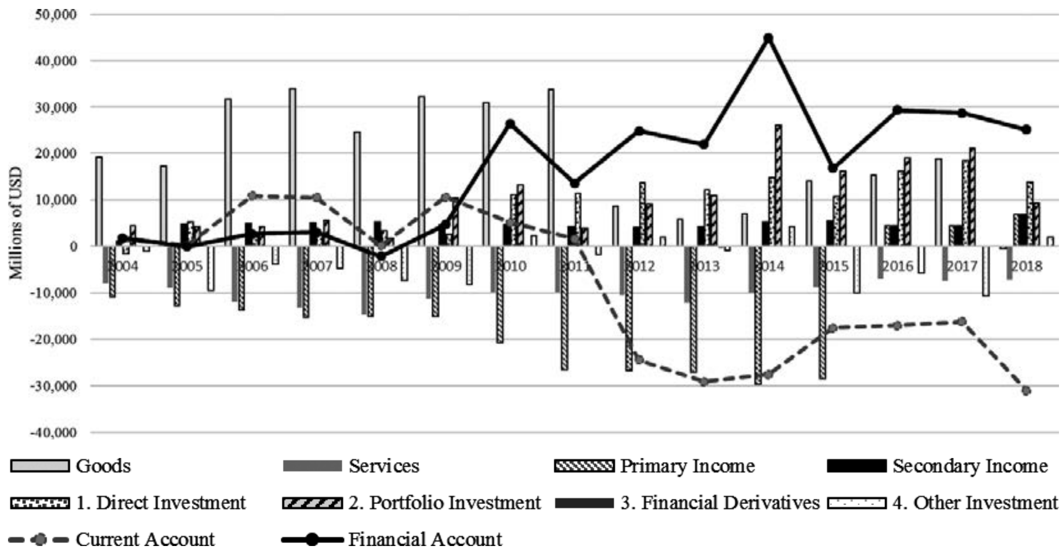
## IV. Vulnerabilities of the Indonesian economy

Indonesia was strongly affected by US monetary policy. The rupiah continued to weaken against the U.S. dollar from 2013. Since the global financial crisis, capital continued to inflow into Indonesia. The flow of capital was reversed because of the current account deficit and fiscal deficit. In addition to that, it is undeniable that the memory of the crush of the rupiah at the Asian currency crisis still remains in the international financial circle. The Indonesian economy is always considered vulnerable to changes in the international environment. In this section, the vulnerability of the Indonesian economy is examined.

### *IV-1. Persistent current account deficit*

The current account deficit became chronic after 2012. The deficit continued to stay around USD 17 billion in 2017, but in 2018 it worsened to USD 31 billion. The deficit tended to shrink from 2.7% of the GDP in 2016 to 1.7% of the GDP in the second quarter of 2017, but from the latter half of 2017, the deficit expanded again. The trade balance, which was a surplus of USD 33.8 billion in 2011, shrank to USD 8.9 billion in 2012, and continued to decline to USD 7 billion in 2014. Although it was on a recovery trend until 2017, it turned into a deficit in 2018. This results from a decrease in exports due to the economic downturn in China, which is the main export destination, and an increase in imports due to the expansion of domestic demand in Indonesia. Furthermore, the deficit in the primary income balance has also been growing since 2011. Because of the rapid increase in direct investment from 2010 and the expansion of portfolio investment, dividends and bond interest payments are also increasing. As a result, Indonesia's current account deficit has become persistent.

Figure 11. Balance of Payments, 2004-2018



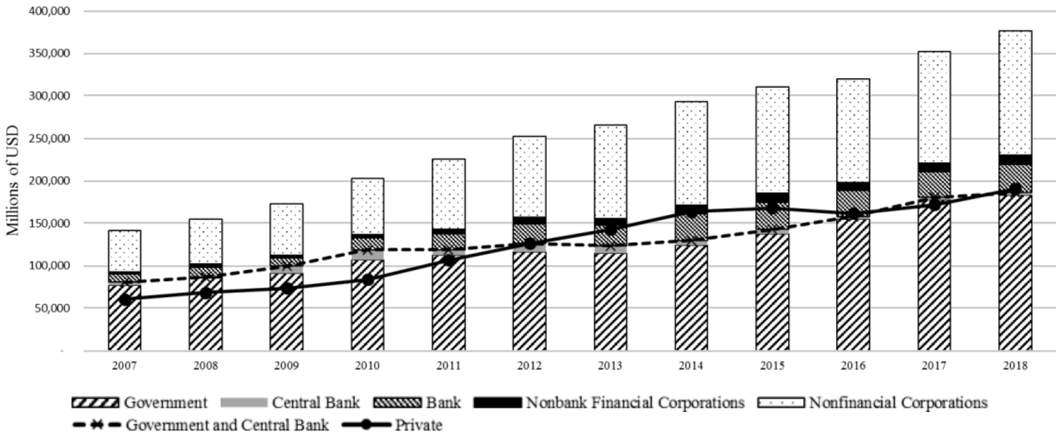

Source: Bank Indonesia

Indonesia covers its current account deficit with a surplus in its financial account. This structure is regarded as a vulnerability of Indonesia. Before the global financial crisis, medium- and long-term foreign direct investment were the major components of financial accounts. However, after the crisis, the increase in portfolio investment, especially into the public sector, is one of the factors that seemed to be easily affected by external shocks.

## *IV-2. Increase in external debt*

Secondly, the increase in external debt is one of the concerns regarding the vulnerability of Indonesia. Indonesia's external debt ratio is not too high at 36%, but after the Global Financial Crisis, the private sector's external outstanding debt has expanded. The public sector (government and central bank) external debt has also increased since 2015 (Figure 12). As of the end of 2018, the debt outstanding was USD 377 billion, which is almost the same level as the domestic bank loans outstanding. The government sector was USD 186 billion, and the private sector was USD 191 billion. The private sector also includes USD 44 billion of state-owned enterprises' external debt.

Figure 12. External Debt Position by Group of Borrower, 2007-2018



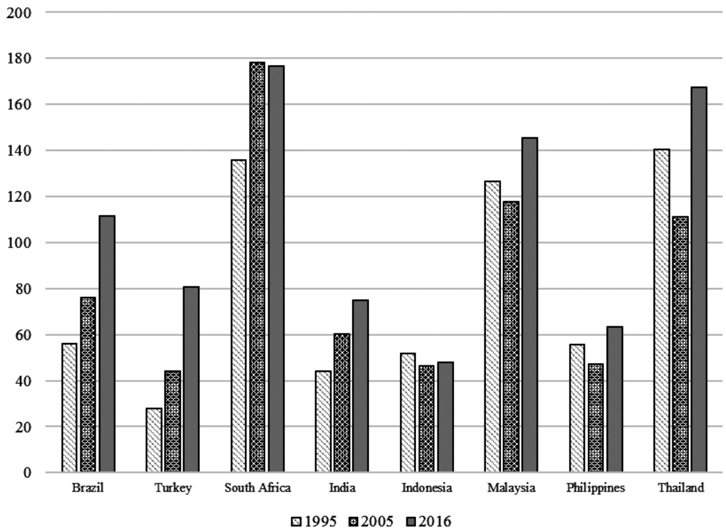

Source: Bank Indonesia, External Debt Statistics of Indonesia - February 2019

Non-financial institutions account for 77% of private sector external debt, and its outstanding debt amounts to USD 147 billion as of the end of 2018. An increase in external debt has resulted in an increase in interest payments, which leads to a deterioration in the primary income of the balance of payments. Before the Global Financial Crisis, foreign direct investment, which is long-term capital, accounted for the majority, but the increase in external debts increased repayment burdens when the rupiah weakened and put pressure on the corporate performance. This is also regarded as a vulnerability of the Indonesian economy. Special attention is being paid to the increase in external debt of state-owned enterprises. They undertake infrastructure projects and finance instead the government that is short of financial resources. This is regarded as a vulnerability in the country of Indonesia.

## *IV-3. Small size domestic financial markets*

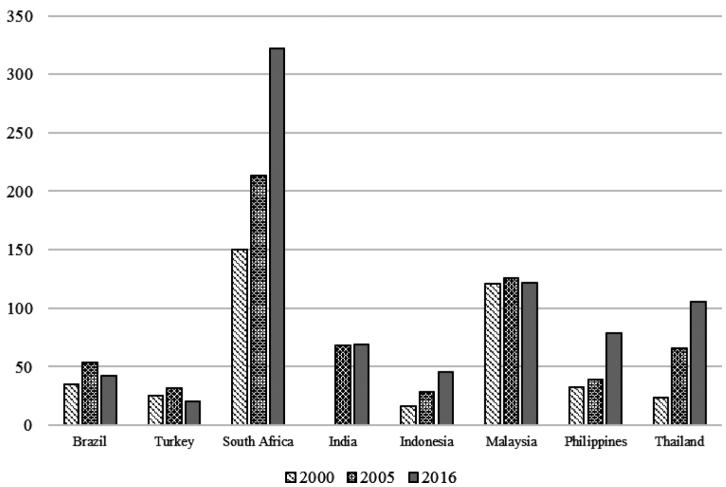
The increase in external debt is attributed to the small size of Indonesia's domestic financial markets. The bank lending outstanding is only 36% of the GDP and the market capitalization is 47% in 2018. Following the Asian currency crisis, the issue of the government bond market has developed, but the outstanding government bonds are at 16% and the corporate bonds are only 3%. The development of the financial sector has not sufficiently followed the development of the real economy, and the smaller size of Indonesian financial markets stand out even in comparison with those of other countries. Figure 13 and Figure 14 show the ratio of domestic credit provided by the financial sector to the GDP and the ratio of market capitalization to the GDP of the Fragile 5 and ASEAN countries in 1995, 2005, and 2016, respectively. Domestic credit is the lowest in Indonesia, and it is shrinking only in comparison with 1995. Although the capitalization ratio is growing, the size is still smaller compared with other countries. The fact that the domestic financial market is not large enough to finance domestic demand for funds brought about the increase of external debt in the private sector, which leads to the outflow of the primary income of the balance of payments, and furthermore has a negative impact on corporate performance due to depreciation

Figure 13. Domestic Credit Provided by the Financial Sector (% of GDP)




Source: World Bank

Figure 14. Market Capitalization of Listed Domestic Companies (% of GDP)




Source: World Bank

of the rupiah.

As a result of the increase in government bond issuance to finance the fiscal deficit, the outstanding amount of government bonds as of June 2018 amounted to Rp 2,197 trillion, equivalent to 16% of the GDP. Among them, Rp 461 trillion (21% of the total) are held by banks, Rp 210 trillion (10% of the total) are held by Bank Indonesia, and Rp 1,526 trillion (69%) are held by the non-banking sector. Out of the non-banking sectors, residents hold Rp 696 trillion (32% same), and non-residents hold Rp 830 trillion (38%). The largest portion is held by non-resident owners, which creates instability of capital outflows when the economic environment suddenly changes.

## *IV-4. Dependence on resource export*

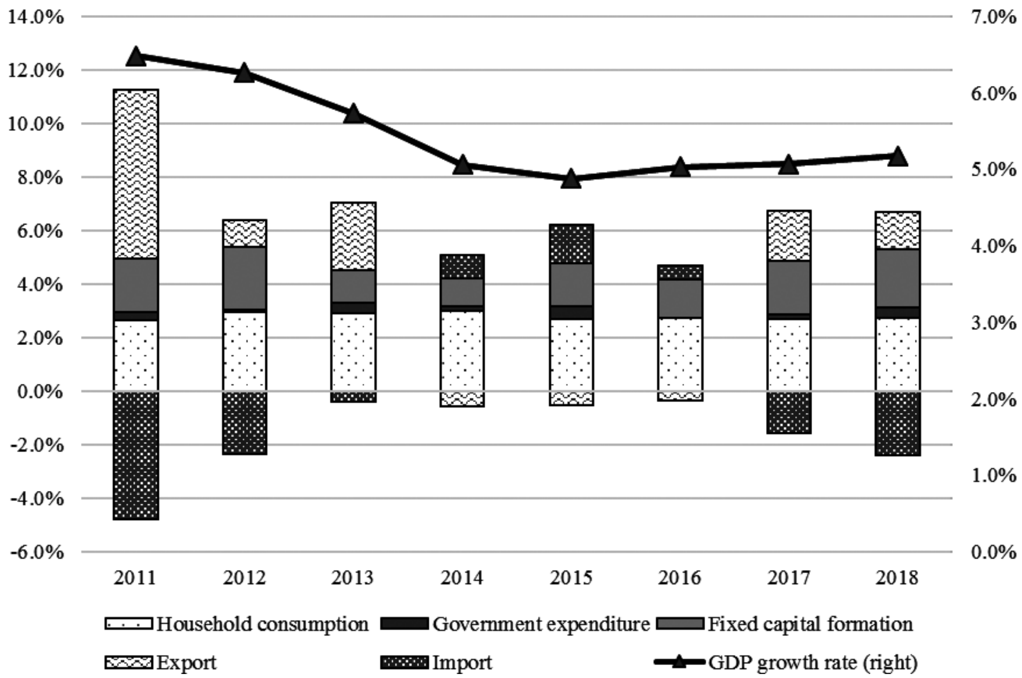
Household consumption accounted for 56% of GDP in 2018 and drives economic growth in Indonesia. Exports accounted for about 20% of GDP in 2018, having previously reached more than 30% in the mid-2000s and gradually declined in the 2010s. Indonesia is an oil producing country, and so oil was the main export product until the 1970s. However, Indonesia has become a net importer of oil, so the country's current main export products are coal, which accounts for 13% of exports, and palm oil, which accounts for 9% as well as other resources such as rubber and base metals. In 2001, manufacturing products accounted for 58% of total exports but decreased to 45% in 2011. Although it recovered to 57% in 2018, this was due to a decrease in the export of natural resources.

Although the Indonesian economy depends on domestic consumption, the biggest driving force for economic growth is still the export of natural resources. Looking at the contribution ratio to GDP growth rate (Figure 15), the GDP growth rate of 2011 was 6% and the contribution of exports to GDP growth was 6.3%. During 2014 to 2018, when the GDP growth rate fell to around 5%, the contribution ratio of exports was low at minus 0.6% to 1.9%. This indicates that the decline of exports greatly affected Indonesia's economic growth.

## *IV-5. Small tax base*

The fiscal deficit in 2018 was 1.72% of GDP, the lowest level since 2012, lower than the previous year at 2.48%, and improved beyond expectation. In order to further promote economic growth, a large amount of infrastructure investment is necessary, but budgetary resources are limited. Therefore, it is essential to increase tax revenues, which account for 85% of domestic revenue; but Indonesia's tax revenue ratio is only 10.4%. The low tax revenue base will require fundamental tax administration reforms to increase tax compliance, such as improving taxpayer data gathering and analytics—a major, medium-term challenge (Jamie et al. 2016). The government implemented a tax amnesty in 2016 to try to increase tax revenue and refund undeclared assets from overseas, but the tax revenue from the tax amnesty has stayed at Rp 114 trillion and this has no permanent effect.

Figure 15. Contribution Ratio to GDP Growth, 2011-2018




Source: Badan Pusat Statistik

## *IV-6. Vulnerability as emerging economic countries*

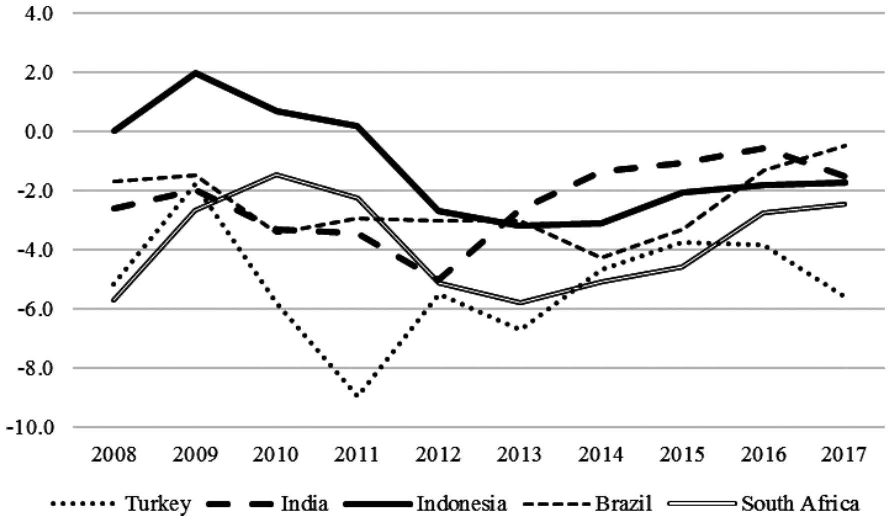
The federal funds rate started to increase in 2018 and the capital started to flow out of emerging countries to the United States. Although the fundamentals of the Indonesian economy are relatively stable, because Indonesia has twin deficits and is regarded as an "unsound" country, the rupiah experienced a sharp decline.

Figure 16 indicates that Indonesia's current account deficit to GDP has improved since 2015. The other members of the Fragile 5, India, South Africa, and Brazil are not declining either. However, when investors rebalance their portfolio, emerging countries with current account deficits are subject to sale. Therefore, an emerging country, which depends on foreign capital for economic growth, is vulnerable.

Turkey's lira crisis on August 10, 2018 caused investors to take flight and sell off emerging economies' currencies; and views on the Indonesian economy subsequently became more severe.

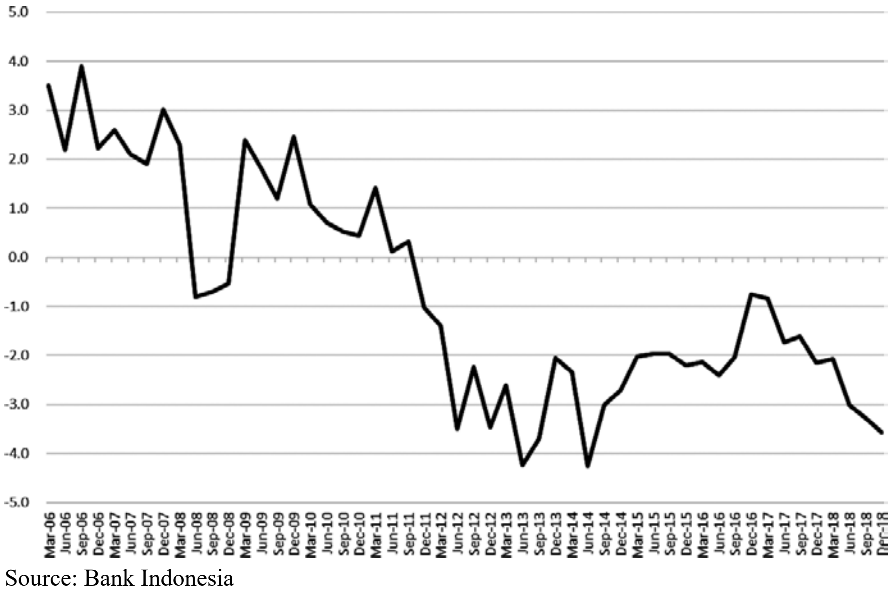
Indonesia's current account deficit persisted, expanding to 3.04% in the second quarter of 2018 (Fig. 17), and further accelerating the selling off of the rupiah. Furthermore, the depreciation of the rupiah showed no sign of bottoming out due to the U.S. interest rate increase in September 2018, and the rupiah touched its weakest level beyond Rp 15,000.

Figure 16. Current Account Deficit of the Fragile 5 (% of GDP)




Source: World Bank

Figure 17. Current Account (% of GDP) by Quarterly




Source: Bank Indonesia

## *IV-7. Response to the lowest rupiah since the Asian financial crisis*

The year 2017 is when the infrastructure development started to progress, which has been the most important agenda for Indonesia. As a result, ironically the increase in imports of capital goods and intermediate goods for investment led to the expansion of the current account deficit.

Increases in imports of raw materials and intermediate goods, unlike consumer goods, would be positive for the Indonesian economy. However, in order to avoid further expanding the current account deficit, the government imposed restrictions on imports and issued regulation on import taxes that increased the income tax on substitutable import consumer goods and raw materials with domestic ones from 2.5% to 7.5% or 10%. The items subject to the tax also expanded from the initial 500 items to 1,147 items and were applied from September 13, 2018.

In addition, the government decided to postpone infrastructure investment. Projects that have not been constructed yet and whose import ratio is high are postponed, including projects of the state-owned oil company Pertamina and the state-owned electric power company PLN. They are required to restrain the import of capital goods and postpone infrastructure projects that have not been funded. In addition, in order to suppress the import of crude oil, the government decided to blend 20% of palm oil biodiesel into diesel oil. The government attempted to prevent the expansion of the current account deficit by all measures necessary.

The government understands that these reckless policies hinder the growth of the Indonesian economy. In the second quarter of 2018, the economic growth rate was 5.22% higher than expected, thus it is suggested that the tax on raw materials and capital goods may interrupt domestic economic growth. Its impact on the domestic economy is immeasurable. However, further expansion of the current account deficit must be prevented.

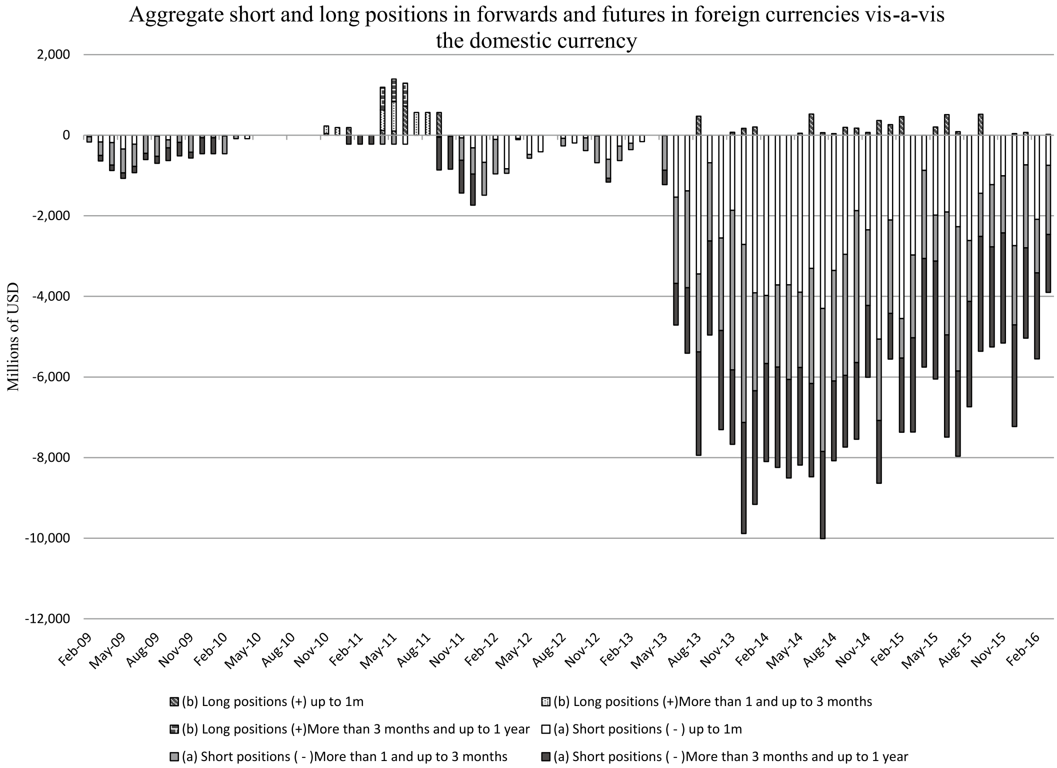
At the same time, increasing exports is crucial, therefore the government aims to strengthen the export-manufacturing industries and the tourism industry. However, it takes time to achieve measurable effects on the economy. Therefore, what the Indonesian government can do is to improve the investment environment in order to promote domestic and foreign investment. In 2015, the government launched the integrated one-stop service center, which is supported by 22 ministries and government agencies. It aims to support approval and licensing processes for all business fields.

In July 2018, the government introduced the online single submission (OSS) licensing system. All licensing processes are now done through the OSS system. Ministries and local government are therefore no longer allowed to issue licenses within the sectors stated in this regulation. Improvement of the investment environment is expected.

In addition, Bank Indonesia announced that it would create a domestic non-deliverable forward (DNDF) market with the aim of increasing the depth of the foreign exchange market and providing hedging instruments to market participants. Since Indonesia applies the actual demand principle to domestic exchange transactions and there is no offshore market, most foreign exchange transactions are traded on NDF in the overseas offshore market. Foreign exchange volume during April 2007 was USD 1.7 billion, of which the spot was USD 277 million. The foreign exchange swap was USD 178 million. The deliverable forward (DF) was USD 78 million. The non-deliverable forward was USD 1.2 billion and it was most significantly NDF (Tsuyuguchi, Wooldridge, 2008).

In the past, the volume of futures transaction was very small, but as shown in Figure 18, it rapidly increased in net selling from May 2013. Accordingly, NDF transactions are also

Figure 18. Aggregate Short and Long Positions in Forwards and Futures




Source: IMF

rapidly increasing. NDF trading was between USD 500 million and USD 700 million a day, but it has increased to USD 1.5 billion a day as the rupiah plummeted. Because foreign investors occupy an important position in bond markets, Bank Indonesia creates a market which provides an alternative for market participants in hedging on the domestic foreign exchange market alongside the offshore NDF market.

## V. Conclusion

Indonesia has been evaluated as coping relatively well with the impacts of the early stage of the end of Quantitative Easing in 2013. However, the rupiah has weakened continuously. Since Indonesia faced the strong pressure of capital outflow due to the Federal Fund Rate increases in the United States, and due to the fall in the Turkish lira in August 2018, Bank Indonesia tried to stabilize the rupiah through various means besides interest rate increases and aggressive foreign exchange intervention. The depreciation of the rupiah resulted from the fact that Indonesia is an emerging economy, having a typical current account deficit and fiscal deficit. However, even if they are the same deficits, the Indonesian government insists that the background of the deficits and the economic growth trend along with other macroeconomic conditions must be considered. However, 3% of the current account deficit to GDP in the second quarter of 2018 gives international investors a reason for selling the rupiah. In order to prevent further expansion of Indonesia's current account deficit, the government attempted to limit imports in order to reduce the current account deficit.

Although the current account deficit was at its worst in 2018, the economic growth rate improved to 5.2% under very harsh circumstances, and the ratio of the budget deficit to GDP also shrunk. The rupiah, which reached its lowest point in October 2018, has appreciated slightly since November 2018 due to the interest rate increases in the United States moderating and policies such as the introduction of the DNDF. However, amid uncertainty about the effects of US monetary policy and US-China trade friction, it is necessary for the Indonesian government to handle the difficulties of the economy in the meantime, due to changes in the international economic environment.

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