Mizuho Economic Outlook & Analysis

September 10, 2018

Contagion risk of Turkey's currency shock

Similarities and differences with past currency crises

< Summary >

- The outbreak of the Turkey Shock began when the sudden plunge of the Turkish lira on August 10 spurred accompanying depreciation of the currencies of other emerging countries. The financial contagion of currency depreciation was especially striking in Argentina.

- Vigilance is needed for further currency depreciation in Turkey and Argentina from an economic fundamentals point of view. Turkey in particular also has political insecurity, and besides these two countries, South Africa also requires attention.

- So far, currency depreciation is concentrated in countries with fragile economic fundamentals and/or countries with insecure political circumstances. Although the risk of wide-range contagion of currency depreciation is currently limitied, attention is needed whether US-China trade friction could cause the spread of risk aversion in the global financial markets.

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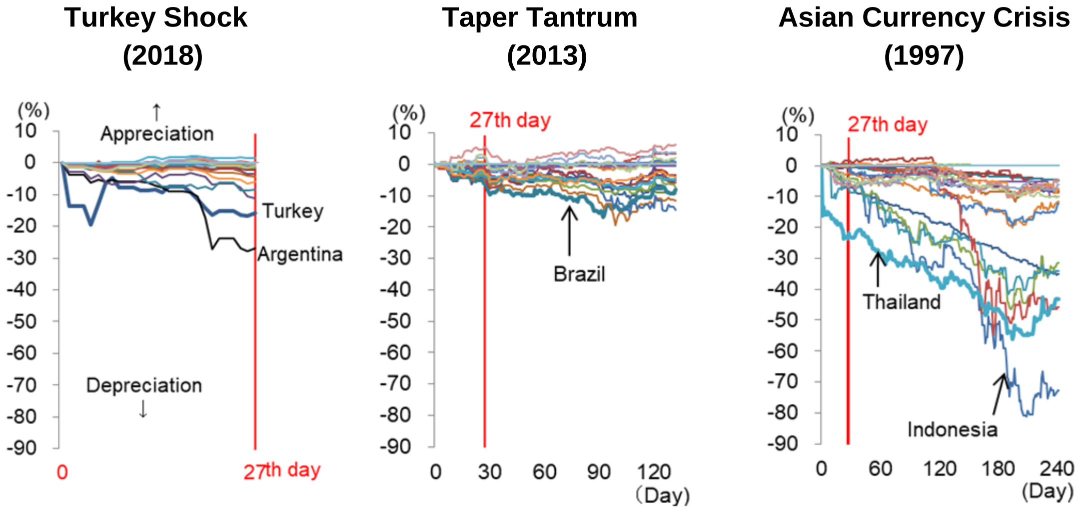
1. Outbreak of the Turkey Shock

The outbreak of the Turkey Shock began on August 10 when the sudden plunge of the Turkish lira's exchange rate against the US dollar spurred accompanying depreciation in the currencies of other emerging countries. This depreciation brings to mind past contagions of depreciating currencies of emerging countries, including the 2013 Taper Tantrum and the 1997 Asian Currency Crisis (**Chart 1**).

Chart 1: Exchange rate fluctuations of 23 emerging country currencies against the US dollar (accumulated fluctuation rates following the starting dates of the crises)



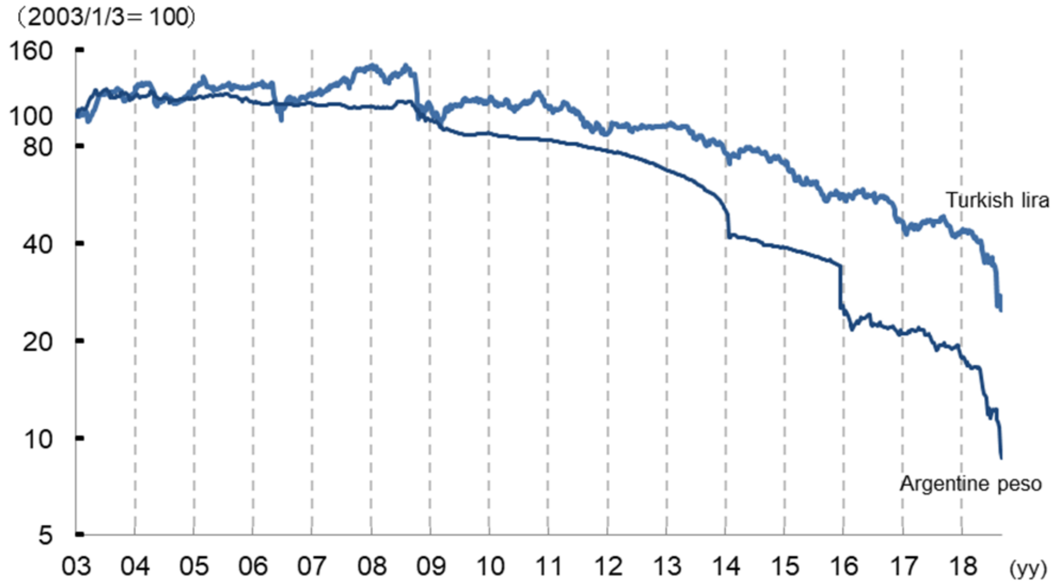
Note: The starting dates are August 10, 2018 for the Turkey Shock, May 22, 2013 for the Taper Tantrum, and July 2, 1997 for the Asian Currency Crisis.
Source: Made by MHRI based upon Bloomberg.

Depreciations of emerging country currencies were also observed beginning this year before the Turkey Shock. Against the backdrop of the United States' interest rates hike, between February and May 2018 currency sell-offs were already underway for currencies of countries with current account deficits for which there were concerns about capital outflow vulnerability, specifically countries in Central and South America, Turkey, and South Africa. In Argentina in particular, large capital outflow created a deadlock of foreign borrowing, leading the country to request $50 billion in financing support from the IMF. Furthermore, since June, the sense of uncertainty accompanying trade friction between the United States and China has led to sell-offs of the currencies of China and its neighboring Asian emerging countries. The outbreak of the Turkey Shock came like a final blow amidst the rising anxiety about the depreciation of the currencies of these emerging countries.

2. Bearish sentiment toward the lira continues even entering into September

The Turkey Shock was triggered by a rapid deterioration of the country's relations with the United States. Although the lira had shifted into a trend of depreciation for over five years (**Chart 2**) against the backdrop of weak fundamentals symbolized by the current account deficit and high inflation, the lira's plunge was sparked by the Trump administration's announcement of the doubling of import tariffs against Turkish steel and aluminum in retribution for the Turkish government's detainment of an American pastor.

Chart 2: Exchange rates of the Turkish lira and Argentine peso against the US dollar (long-term fluctuations)



Note: The vertical axis is on the logarithmic scale, and the two distances correspond with the fluctuation rate.
Source: Made by MHRI based upon Bloomberg.

Immediately following the outbreak of the Turkey Shock on August 10, the Turkish authorities undertook the following emergency countermeasures against the lira's depreciation: 1. currency speculation control (restrictions on currency swaps with overseas investors by domestic banks), 2. currency swap agreement with the Qatar Central Bank (3 billion dollars in scale), and 3. an effective interest rate hike (changed its funding rate from one-week repo rate of 17.75% to overnight rate of 19.25%). This yielded certain results in market stability. In addition, the exchange market was closed for the Turkish national holiday period between August 21-24, which also served to somewhat dampen speculation. However, market participants returned once the vacation period was over, reviving the lira's depreciation. The lira's depreciation reached a temporary peak on August 13, the 4th day of the Turkey Shock, and began to fall again after August 27, the 18th day (**Chart 1** above).

3. Striking currency depreciation contagion in Argentina

The plunge of the lira precipitated downward trends in the currencies of countries in Central and South America (Argentina, Brazil) and South Africa, which had current account deficits like Turkey. The contagion of the Turkey Shock could also be seen in the depreciation of the Russian ruble, as during the same period the United States had levied economic sanctions on Russia as a measure against its use of chemical weapons.

Among the emerging country currencies that depreciated along with the lira, the Argentine peso had a particularly rapid downward pace and there was no putting a stop to it. When the Turkish currency crisis began on August 10, the Argentine peso immediately accompanied it in depreciation, not even stopping when interest rates were raised by 5% on August 13 as a currency protection measure. Additionally, because of continuing depreciation and capital outflow, on August 29 Argentina requested the IMF the early release of the remaining portion of a total of 50 billion dollar funds of which the 15 billion dollars had already been released. Furthermore, Argentina further increased interest rates by 15% on August 30, but there was no change seen in the depreciation trend. The depreciation rate of the Argentine peso on the 27th day (September 5) after the breakout of the Turkey Shock had reached 27%, a greater level than the lira (16%) that was the contagion epicenter (**Chart 1** above).

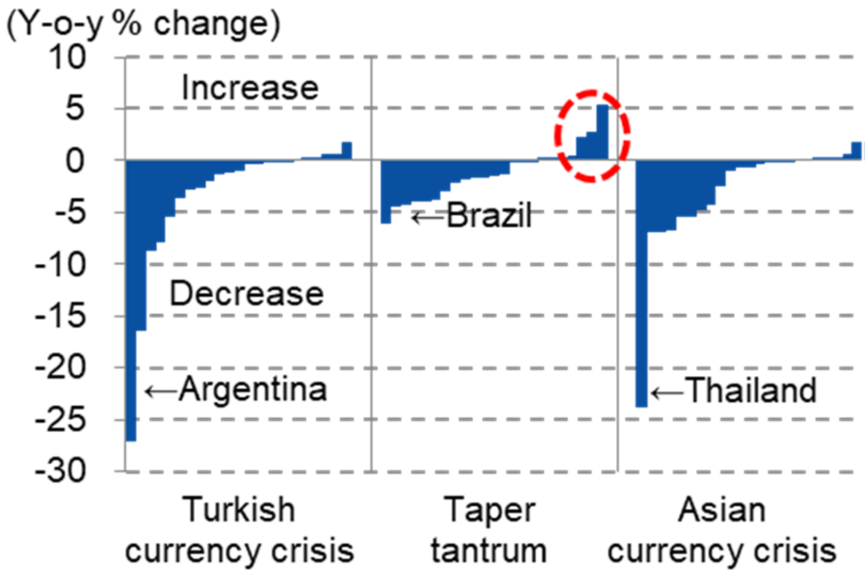
4. At this point, the depth and spread of the depreciation ranks with the Asian currency crisis

How did the situation on the 27th day since the Turkey Shock began compare with the representative depreciation situations of emerging country currencies in the past? Firstly, on the 27th day of the Taper Tantrum, which was put into motion by the suggestion in May 2013 by then-Chair of the Federal Reserve of the United States Ben Bernanke of tapering quantitative easing policy, the currency with the most depreciation was the Brazilian real at 6%. On the 27th day of the Asian Currency Crisis, which was put into motion by the plunge of the Thai baht in July 1997, the currency with the most depreciation was the baht, the epicenter of the crisis, at 24%. The depreciation rate of the subordinate Argentine peso has surpassed that during the Taper Tantrum, and now ranks with the Asian Currency Crisis (**Chart 3**).

In addition, the spread of the depreciation of the Turkey Shock can also be ranked alongside the Asian Currency Crisis. During the Taper Tantrum, currency appreciation in several countries was observed and depreciation was not necessarily always the case in emerging countries. However, during the Asian Currency Crisis the currencies of most countries generally depreciated, and the spread of depreciation resembled the current Turkey Shock (**Chart 3**).

If we look at the depreciation depth and spread since the start of the Turkey Shock to the present, we can see that the Turkey Shock has surpassed the Taper Tantrum to reach a level equivalent to the Asian Currency Crisis.

Chart 3: Exchange rates of 23 developing country currencies against the US dollar (Fluctuation rate during the first 27 days since the start of the crisis)



Note: Shows the same 23 currencies as in Chart 1.
Source: Made by MHRI based upon Bloomberg.

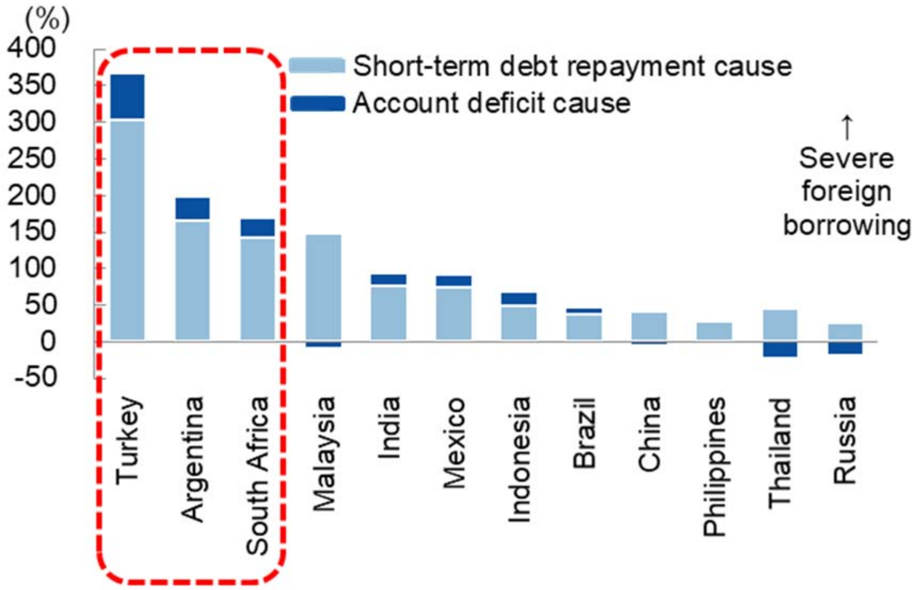
5. Worries about long-term depreciation

There are worries that the effects of the Turkey Shock will become long-term, and that the depth and spread of depreciation will worsen further like the Asian Currency Crisis which the current crisis has resembled so far (**Chart 1** above). Firstly, for Turkey and Argentina, there will likely be a continued situation in which vigilance for further depreciation cannot be neglected. Because these countries have the weak economic fundamentals of severe foreign borrowing, there is a high risk that market participants will withdraw capital. If we try calculating the ratio of the amount of external financing needs (the total of remaining-maturity-base short term foreign debt with the current account deficit) against the foreign exchange reserves, we can see that the rates for Turkey and secondly Argentina are high, and that the amount of foreign currency on hand is low compared to the external financing requirements (**Chart 4**).

In particular, Turkey has highly opaque economic policies and diplomcy, and there is a risk of continued feelings of uncertainty by market participants. Although the Central Bank of Turkey raised interest rates due to the country's currency crisis, President Erdogan had previously declared his opposition to raising interest rates, and it was uncertain whether the government and Central Bank could unite to deal with further depreciation pressure. In terms of diplomacy, the American pastor is still being detained by Turkey, and there is no sign of any repair to worsening US relations that triggered the Turkish currency crisis.

Besides Turkey and Argentina, South Africa is also a country for which vigilance for a sudden currency plunge is necessary from a foreign borrowing point of view. In terms of diplomacy, in August President Trump tweeted critical comments about the constitutional reform aimed for by President Ramaphosa that enables the compulsory seizure of land owned by white people, prompting worries about increasing uncertainty of market participants due to worsening relations with the United States.

Chart 4: External financing needs / foreign exchange reserves ratio

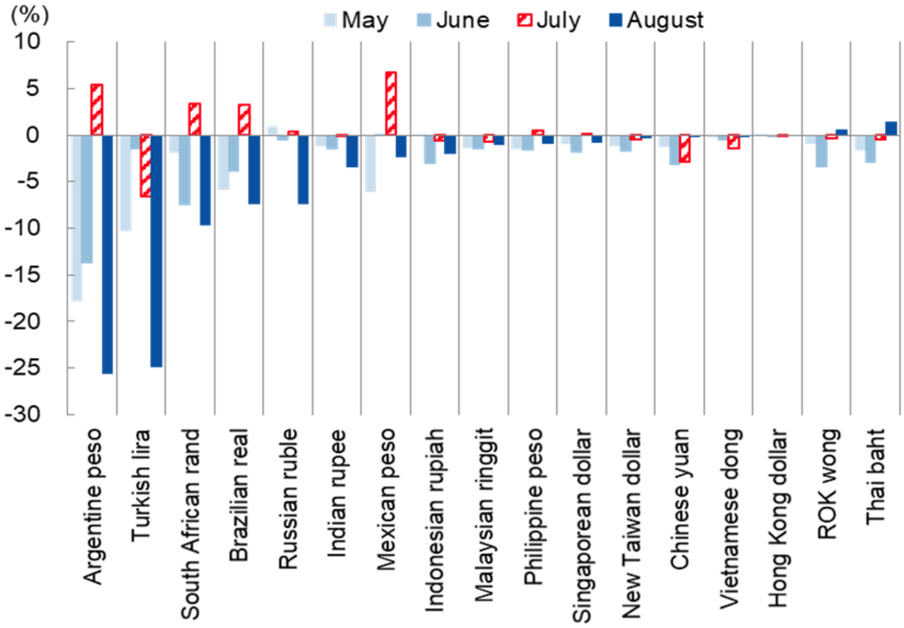


Note: Average value for 2018-2020. Short-term debt is remaining maturity base.
Source: Made by MHRI based upon the IMF.

Malaysia's External financing needs / foreign exchange reserves ratio is also high, but it has the factors for peace of mind in terms of policies that aims to control foreign debt. Prime Minister Mahathir, who took power in the May general election, suspended the infrastructure construction led by China that had been promoted by the previous administration, citing swelling debt with China as the reason.

Regarding Brazil (**Chart 5**), where depreciation progressed in August when the Turkey Shock occurred, weak numbers for the reformist candidate in the October presidential election have led to a bearish sentiment for the real. However, if we look at this from a foreign borrowing point of view, anxiety is not as high as about South Africa and there is a possibility of cessation of depreciation following the presidential election.

Chart 5: Monthly fluctuation rates of exchange rates with the US dollar



Source: Made by MHRI based upon Bloomberg.

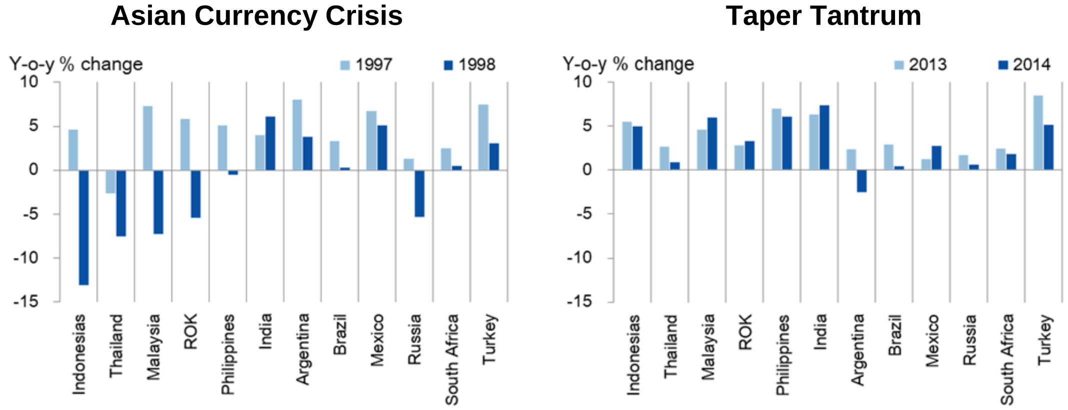
6. The contagion conditions for plunges in many currencies are weak fundamentals and uncertainty

As described above, there is a high possibility of prolonged depreciation of the lira and Argentine peso, and if we also include the South African rand, the bearish sentiment for these three worried-about currencies are continuing to create the possibility of a situation that prompts recollections of the market anxiety about emerging countries. If the effects of the Turkey Shock are prolonged and there is the possibility of contagion of many plunging currencies like the Asian Currency Crisis which the initial situation of the current crisis resembles, what would the conditions for this be?

If we recall the entire picture of the Asian Currency Crisis, the crash of the Thai baht resulted in contagion of the currencies of other Asian currencies, and the Indonesian rupiah nose dived by 80% in total (**Chart 1** above). The contagion was not limited to Asia, and is said to have been the underlying cause of the 1998 Russian currency crisis and the 1999 Brazil currency crisis.

In addition, for countries whose currencies plunged, enormous effects extended to the real economy. Firstly, import prices and inflation rates rose. Secondly, depreciation caused the repayment burden of foreign currency debt to increase, leading to successive business failures. Thirdly, fiscal and financial tightening was carried out to stabilize currencies. As a result, the growth rates of these countries declined, and several countries saw negative growth (**Chart 6**).

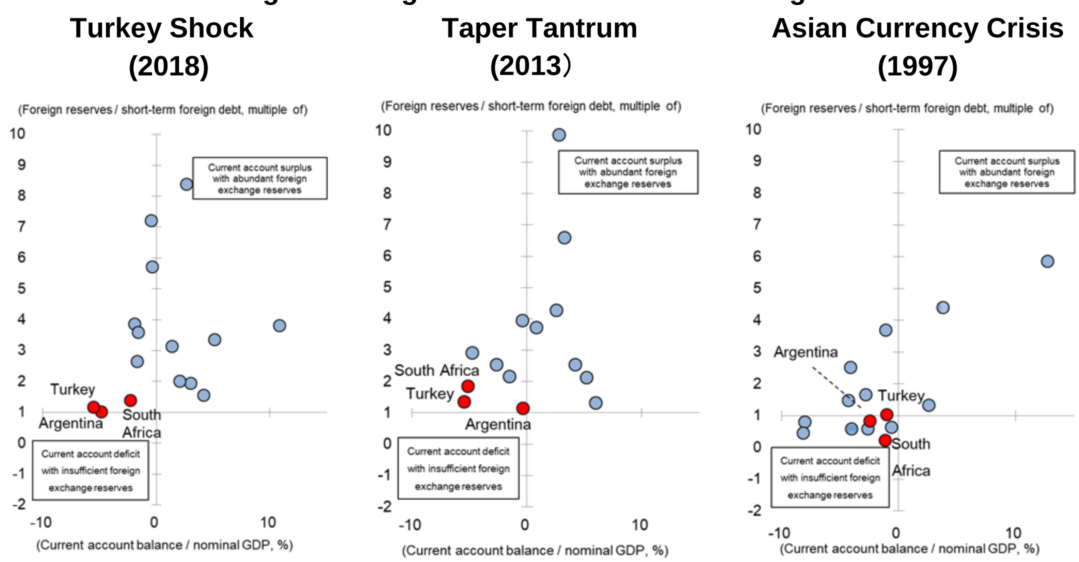
Chart 6: Real economic growth rate



Source: Made by MHRI based upon the IMF.

The primary characteristic of the Asian Currency Crisis, which saw this kind of impact, was many countries that had insufficient foreign reserves as well as current account deficit, and therefore became vulnerable with foreign financing (**Chart 7**). In contrast, the Taper Tantrum, which did not have as much depreciation depth and spread as the Asian Currency Crisis, had many countries that had better current account balance and foreign currency reserve situations than those in the Asian Currency Crisis.

Chart 7: Current account balance / nominal GDP, Foreign exchange reserves / short-term foreign debt



Note: Data for the year prior to the start of each event. However, the year is 1997 for China's (vertical line) current account balance / nominal GDP, and 1998 for the Republic of Korea's (horizontal line) foreign exchange reserves / short-term foreign debt.

Source: Made by MHRI based upon the IMF, World Bank, etc.

The secondary characteristic of the Asian Currency Crisis was inadequate economic statistics compilation and English-language information dissemination by the authorities of the affected countries caused expansion of market participant anxiety about each country's currency trends. Such anxiety caused self-fulfilling speculation that spurred further depreciation. In contrast, communication with the market was better during the Taper Tantrum and the disorder did not reach the level seen during the Asian Currency Crisis.

Analysis is conducted on factors that aggravated the situation during the Asian currency crisis, including the weak economic fundamental of foreign borrowing and the worsening market participant sentiment due to inadequate information (3rd generational model of currency crises).

7. Currently, there is a low risk of contagion on the level of the Asian currency crisis

We can see similar factors to the Asian crisis in the current Turkish currency crisis. Namely, depreciation is concentrated in Argentina, Turkey, and South Africa, which have particularly weak fundamentals. In addition, there are concerns about the policies and governance of these three countries.

In terms of the future outlook, the United States is expected to raise interest rates within the year which should cause a flow of capital, and going forward there is the possibility of capital outflow from developing countries which would put depreciation pressure on currencies. During such times, if nontransparent governments and policies are not swept away in Argentina, Turkey, and South Africa, which have particularly weak fundamentals, they are in danger of strongly receiving depreciation pressure.

However, in comparison with the time of the Asian currency crisis, countries besides Argentina, Turkey, and South Africa have improved fundamentals in terms of foreign borrowing. In addition, because we are currently not seeing the individual primary factors that would worsen the market sentiment and in general the communication with the market is better than the time of the taper tantrum, it can be said that it would be difficult for self-fulfilling speculation to arise through information asymmetry similar to that seen in the Asian currency crisis. Judging based on the two points of fundamentals and market participant sentiment, the current main scenario is that there is a low risk of contagion of depreciation on the level of the Asian currency crisis, in which many other developing countries would receive a certain amount of depreciation pressure.

However, as worrisome elements that were not seen during the Asian currency crisis, we would like to point out wavering international cooperation as demonstrated by trade friction between the United States and China. If U.S.-China trade friction escalates and spreads uncertainty about the future of the world economy, a "risk-off" mode would develop in which developing country currencies would generally be sold, a risk scenario with contagion of plunges of many developing country currencies that we should pay attention to.