Institute of International Finance

Global Economic and Financial Outlook

2016Q2 (Issue 26) **March 31, 2016**

Highlights

● In 2016Q1, the global economy reported an extended downturn, and the commodity prices wavered and rebounded. Developed economies slowed their pace toward recovery and the Fed postponed its interest rate hike. The growth rate of emerging economies was decelerated, with Russia and Brazil trapped into recession.

● 2016Q1 saw global financial market rollercoasters. In emerging markets, the exchange rate rallied following a general and in-depth depreciation, the stock market went through sharp fluctuations, commodity prices bottomed out and the financial stability was impaired.

● According to our prediction, in 2016Q2 and the rest of the year, the global economy will remain sluggish, the financial markets will be exposed to non-decreasing risks, the Fed's rate hike and the U.S. dollar appreciation will exert lasting influence upon the risk sentiment around the world.

● The present report will make the following specific analyses in particular: the resuscitation of the U.S. labor market, the negative interest rate policy of Europe and Japan, the possibility and influence of the UK's exit from the EU, and the credit cycle of emerging markets.

ROFCI Rose Substantially in the Past Few Months

Source: BOC Institute of International Finance

BOC Institute of International Finance

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Wider Policy Disparities, Greater Uncertainties

---- Global Economic and Financial Outlook (2016Q2)

The global economy got off to a bad start in 2016. Specifically, the weakness of real economy continued, the financial markets experienced sharp turmoil, the Fed's rate hike program was balked, the European Central Bank strengthened its negative interest rate and quantitative easing (QE) policy, and the Bank of Japan went after to implement negative interest rates. This shows that the policy makers and the markets did not trust in each other as before, the game was deepening and the global economy was embracing new uncertainties. Looking into Q2, the global economy will continue to be sluggish, the financial markets will tend to be stabilized and the policy disparities will become wider all over the world. The report will analyze the following topics in particular: the prospect of the U.S. labor market, the negative interest rate policy of Europe and Japan, the risks from the UK's exit from the EU, and the credit cycle of emerging markets.

Part I Global Economic Review and Outlook

I. Continuously Fatigued Global Economy Confronted with New Risks

In 2016Q1, Global Manufacturing Purchasing Managers' Index (PMI) fell below 50 (a reading of 50 or above indicates expansion, while a reading below that level indicates contraction), and the service industry's PMI plunged, too (Figure 1), indicating that the global economy continued to be fatigue. According to our preliminary estimation, annual growth rate of global GDP was merely 2.2% in Q1, edging up 0.4 percentage points compared with the last quarter which saw an unexpected weakness; the GDP's year-on-year growth rate was 2.3%, staying unchanged from the previous quarter. After continuous slump, commodity prices rallied thanks to market sentiment upturn (Figure 2), which supported international trade decline to narrow.

Figure 1: Moving Tendency of Global PMI

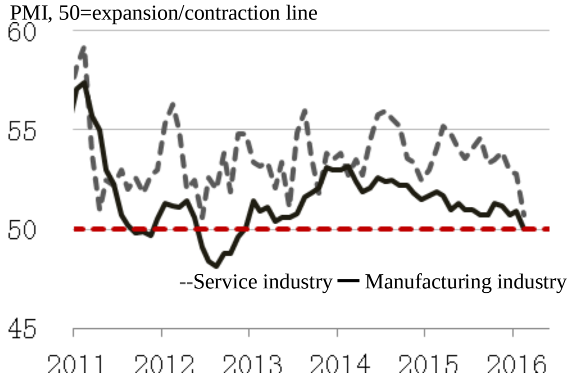
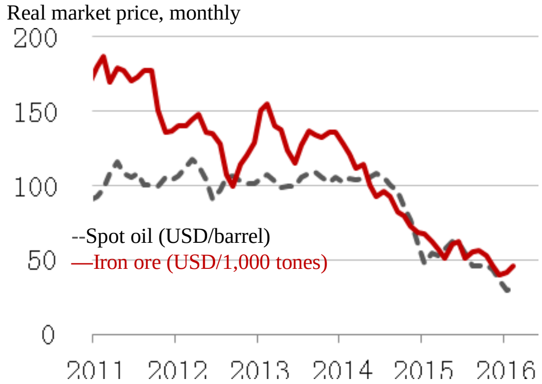


Figure 2: Real Market Prices of Primary Commodities



Sources: IMF, Wind, BOC Institute of International Finance

The following factors contributed to the coexistence of continued weaknesses in real economy and more serious turmoil of financial markets in Q1: first, the capital flight caused by rate hike of the Fed was spread to emerging markets, and the spill-back effect as a result of financial turmoil in emerging markets dragged down the global economy. Second, the economic recovery of Europe and Japan was bleached, and the two began to adopt the negative interest rate policy against deflationary pressure. This jeopardized the interest margin, profitability and stability of banks, adding to the turbulences of financial markets. Third, the descending prices of commodities have dealt a shock to related energy and financial sectors, thus the real economy of emerging markets and developing countries was under immense pressure since they rely heavily on the export of commodities.

Looking into Q2, it is difficult to reverse the trend of global economic weakness. We estimate that global GDP will still register an annual growth rate of around 2.5% in the quarter, remaining lower than the potential output level of global economy. Since the market turbulences and the weakness of U.S. economy are above our expectation, we hereby revise our forecast for global economic growth rate in 2016 down to 2.6% (Table 1). In details, developed countries as a whole will be still on the track of mild recovery, but the performance of developing countries will become polarized: emerging economies in the Asia-Pacific region are expected to maintain a growth rate of over 6.0%, their counterparts in Europe will begin to witness positive growth, emerging economies in Latin America will be still deeply in the dilemma of inflation and recession, but those in the Middle East and Africa may benefit from the stability and increase of commodity prices.

Table 1: Key Indicators of the World's Major Economies (%)

Region	Yr/Qtr Country	GDP growth rate			CPI increase			Unemployment rate		
		2014	2015	2016[f]	2014	2015	2016[f]	2014	2015	2016[f]
America	U.S.	2.4	2.4	2.2	1.6	0.1	1.0	6.2	5.3	4.9
	Canada	2.4	1.2	2.0	1.9	1.1	2.0	6.9	6.9	6.8
	Mexico	2.1	2.5	2.6	4.0	2.7	3.4	4.8	4.3	4.0
	Brazil	0.0	-3.8	-3.0	6.3	9.0	5.8	4.8	6.6	8.6
	Chile	1.9	2.2	2.0	4.7	4.3	3.9	6.4	6.2	6.6
	Argentina	0.5	-0.5	0.0	21.3	16.0	25.0	7.1	7.3	6.9
Asia-Pacific	Japan	-0.1	0.5	0.5	2.7	0.8	0.7	3.6	3.4	3.5
	Australia	2.7	2.5	2.5	2.5	1.5	2.1	6.1	6.1	6.2
	China	7.3	6.9	6.8	2.0	1.4	2.5	4.1	4.1	4.1
	India	7.3	7.3	7.5	6.4	5.9	4.9	—	—	—
	South Korea	3.3	2.6	2.5	1.3	0.7	1.6	3.5	3.6	3.5
	Indonesia	5.0	4.8	4.8	6.4	6.6	6.3	6.1	5.8	3.6
Europe-Africa	Eurozone	0.9	1.6	1.6	0.4	0.0	0.9	11.6	11.0	10.5
	UK	2.9	2.2	2.3	1.5	0.1	1.5	6.2	5.6	5.5
	Switzerland	1.9	0.9	1.5	0.0	-1.1	-0.5	4.5	4.5	3.6
	Russia	0.6	-3.7	-1.0	7.8	15.5	9.5	5.2	5.7	6.5
	Turkey	2.9	3.6	3.0	8.9	7.7	6.9	9.9	10.2	11.2
	South Africa	1.5	1.3	1.0	6.1	4.5	6.3	25.1	25.8	25.8
Global		2.7	2.6	2.6	3.5	3.3	3.4	—	—	—

Source: BOC Institute of International Finance. Note: f for forecast.

The global monetary policy disparities will widen in 2016. In general, developed countries will maintain a super-easing policy cycle. However, the U.S. Fed will further deviate from the European Central Bank and the Bank of Japan in terms of policy orientations. As the U.S. economy is relatively stable with commodity price rally and labor market improvement, the Fed won't halt its rate hike course although at a slower-than-expected speed. This has aligned with our expectation in the last report that the Fed may raise interest rates about twice in the year 2016, very likely in June and December. Following further interest cut and expansion of QE program in March, the European Central Bank is expected to keep this policy orientation unchanged in the rest of the year; the Bank of Japan will further cut down the negative interest rate level for the purpose of countering the deflation risk and stimulating the fragile economy; the Bank of England will maintain its monetary policy throughout the year 2016. Monetary policy disparities are also seen among developing countries. There is policy space for further ease in Asia Pacific, East Europe and

Africa, while Latin America has to carry on its tight monetary policy against the constantly high inflation level and the capital flight.

In 2016, global economic growth is still confronted with bigger risks. Such risks, among others, include monetary policy disparities due to the Fed's rate hike, the debt risk in emerging markets, the international political risk arising from the European refugee crisis and the UK's possible exit from the EU and the uncertainties of international oil price movements against the backdrop of geopolitical rivalry in the Middle East, all of which will possibly have new impact on the recovery of global economy.

II. North America's Economy Grew Mildly Overall, the Fed Will Introduce another Rate Hike

II.1 U.S. economy sped up slightly and will continue to grow moderately

The U.S. economy had a weaker growth momentum in 2015Q4, mainly due to the energy market recession, the global economic growth deceleration, the continuous appreciation of the U.S. dollar and the financial market fluctuations. All these factors continued to exist or even worsened in 2016Q1, and still affected the growth of U.S. economy. The less growth of corporate profits and the lack of confidence weakened the growth of fixed investment in the U.S.; export growth slowed down due to limited external demand and less competitiveness of price; inventory investment continued to correct the excessively fast increase in the past few quarters. Nevertheless, the real GDP of the U.S. grew at an annual 1.5% around in 2016Q1, higher than the last quarter's 1.0%. The main drivers behind such fast growth include: consumer spending increased rapidly backed by the growth of disposable income, the fall of oil price and the reduction of unemployment rate, etc. (Figure 3); industrial output firmed up after the consecutive dips in the previous quarters (Figure 4); housing investment growth led the growth of investment in other sectors because of the housing market revival; inventory investment growth eased but its amount was still an all-time high.

Figure 3: U.S. GDP Growth and Contribution Structure

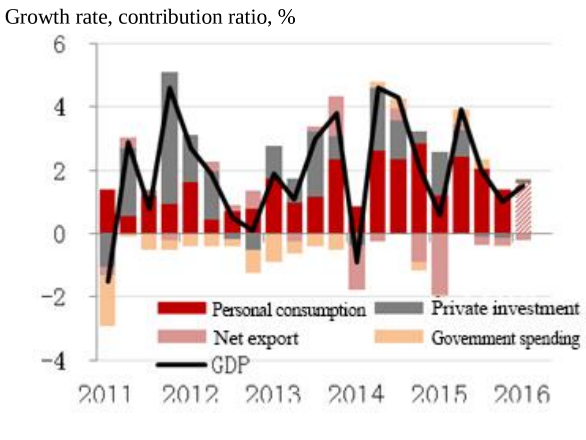
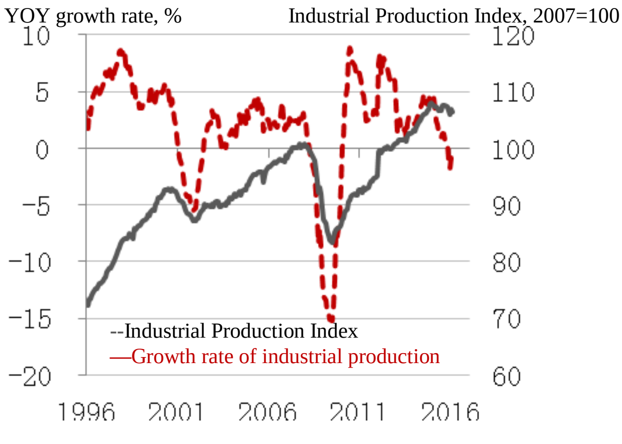


Figure 4: U.S. Industrial Output and Its Growth



Sources: IMF, Wind, BOC Institute of International Finance

In 2016Q2, the U.S. economy is expected to maintain mild growth, the likelihood for it to suffer another recession is dampened and its economy at large will grow at a slightly faster speed. According to our projection, annual growth rate of the U.S.' real GDP will reach about 2% in Q2. The financial market turmoil and the growth deceleration of external economy as of December 2015, among others, have interfered with the expected rate hike of the Fed, thus the Fed slowed down the rhythm of interest rate rise but continued to use the same interest rate objective in Q1. However, in the context of less economic recession risk, rapid improvement of the employment situation, the rising pressure of inflation and the gradual stabilization of global financial market, we estimate that the Fed will increase the benchmark rates by 25BPs in Q2.

II.2 Canadian economy maintaining feeble growth

Canadian economy is export-oriented and energy-dependent in nature. Therefore, it was dealt a heavy shock amid global growth deceleration and energy market decline. Fortunately, the entire economy did not deteriorate. In 2015Q4, the country's real GDP grew at an annual rate of 0.8%, higher than the market expectation. In 2016, although its business investment and export remained sluggish, Canada's consumer spending was relatively healthy. The Canadian dollar depreciation and the lasting growth of U.S. economy boosted export but curbed import. The rebound in energy prices was conducive to the development of related sectors in the country. We expect that the real GDP of Canada will remain at a feeble annual growth rate of 1% in Q1 and Q2 each. The Bank of Canada will unchange the interest rates in recent period, and the federal government may release new fiscal incentive measures by increasing infrastructure spending and relaxing pressure on further rate cut.

III. Intensified Disparities in the Economic and Monetary Policies of Europe

III.1 Eurozone economy reviving at a moderate pace, ECB expanding the QE policy

2016 marks the fourth year for the European economy to get resurgent. Consumption emerges as the first engine to fuel the moderate growth of European economy in addition to the driving effect of low oil price, weak exchange rate, negative interest rate and QE. The low oil price weighted on the inflation rate to be increasingly far away from the 2% target. In February, the Eurozone's CPI went down 0.2% to a negative figure, the first time since September 2015. Also due to the continuously low oil price, the Eurozone's inflation rate fluctuated at a lower level and is expected to fall below 0.5%. The European Central Bank resolutely announced a cut in the three main interest rates and expanded the scale and scope of QE. Specifically, it hiked up the QE bond-buying program to EUB80 billion per month, which could add up to EUR260 billion at least, and also started buying bonds issued by non-financial firms via the QE program. The QE increase moves have fully testified that the European Central Bank will secure the economic recovery of Europe at any cost.

At present, there are more Eurozone member countries back onto the track of recovery: all the member countries except Greece have posted growth or stable economy with increasingly better labor market and mild growth of employment rate; all the member countries have made obvious progress in fiscal deficit reduction. However, structural and cyclical factors have caused the growth rate of their national economy to vary. According to our predication, private consumption will remain the main impetus in the next several quarters, the QE increase will provide more facilities to financing conditions, the Investment Plan for Europe will be promoted step by step, and the refugee crisis will lift the government spending in the public sector, all of which will raise investment requirement progressively. With regard to external factors, the slowed growth of emerging economies, the sluggish global trade and the still possible downturn of economic outlook will inflict the Eurozone on its road to economic recovery. On the whole, the Eurozone economy will continue to resuscitate and show a slow pick-up basically.

III.2 UK economy sustaining moderate growth, BoE unlikely to raise interest rates in a short term

GDP of the UK grew by 0.5% in 2015Q4 compared with the last quarter, by 1.9% year on year and by 2.2% throughout the year, obviously slowing down over the 2.9% growth rate in 2014 but still exceeding the 2.0% average growth rate from 2010 to 2014. The service industry was the key driver of economic growth, while low oil price enabled the domestic demand to maintain a strong growth momentum. The growth deceleration was mainly due to the declining output value of construction industry, manufacturing industry and such non-manufacturing industries as oil & gas exploitation. The economy of the U.S. and Eurozone was still in the recovery stage, in parallel with the instability of Russia, Ukraine and the Middle East, dragging down the GDP growth of the UK.

It is very likely for the UK's economic growth to slacken continuously in 2016, and its annual GDP growth rate may be at par with 2015 basically. The UK will continue to maintain the easing policy so as to bolster the continued recovery of economy and it is unlikely to adopt the rate hike policy in a short term. The Budget 2016 published by the HM Treasury on March 16 provides for further tax cut and other measures to stimulate the national economy. However, the UK’s inflation level is still at the risk of decline recently. The UK will vote on whether to remain in the EU in June, and this event is worthy of great attention, because it adds uncertainties to the UK’s economic and political environment and negatively affects the country’s investing and business activities in the first half year, thereby saddling the full-year economic growth.

III.3 Serious segmentation of emerging markets in East Europe, Russia dragging down the overall recovery

Benefiting from low oil price and economic revival of the Eurozone, East European countries in the EU generally posted a growth rate higher than the average level of the Eurozone. In 2016, as the investment effect driven by the European Fund for Strategic Investment weakened, the growth rate of Bulgaria and Czech Republic slided obviously compared with 2015; Croatia was finally back onto the track of growth after 2008 and the recovery strength would equal to about 2% when the employment market was improved; thanks to robust domestic demand, stable labor market and higher income level at home, Poland and Romania are expected to be a leader with a potential GDP growth rate of 3.5%-4%.

Russian economy dipped into recession once again six years after the 2008 financial crisis due to the following factors: crude oil price fall, extended economic sanctions against Russia by the U.S. and Europe, depreciation of Russian rouble, quicker inflation, as well as loss of economic growth engine and lack of market confidence. The international oil price remains low in 2016, and it is really hard for Russia to reverse the negative-growth trend. The only way to bail out is to resolve the geopolitical tensions and lift the sanctions smoothly as early as possible. The economic performance of Turkey was stable in general. The EU has promised to pay Turkey several billion euros as the refugee facility in 2016, which would boost the Turkish government’s public spending and fuel economic growth. Turkey lined up a new cabinet in 2016, and the new cabinet, with stronger confidence in economic prospect, has increased economic growth forecasts.

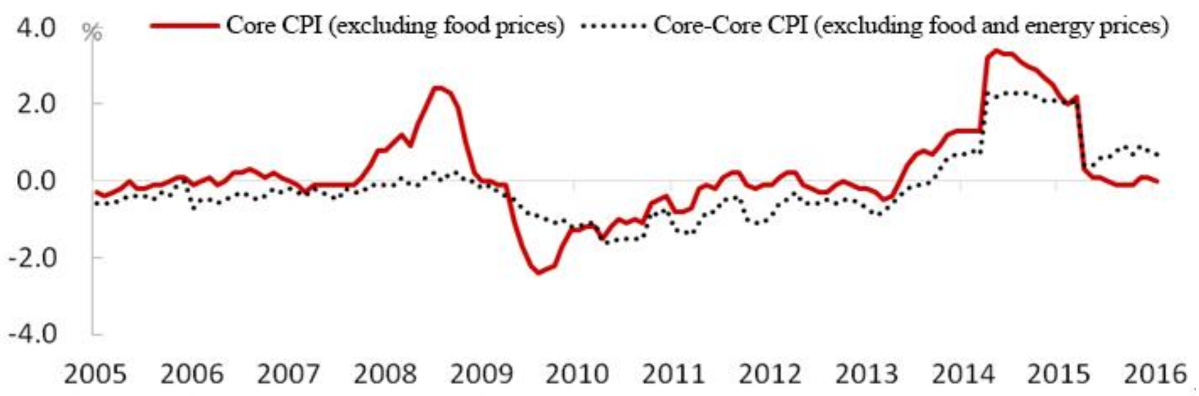
IV. Economy Slowing down and Monetary Policy Further Eased in Asia Pacific

IV.1 More pressure on Japan to deflate and revalue exchange rate, higher potential for BoJ to further ease the monetary policy

In 2015, the Japanese economy grew by 0.5% merely. Due to the reduction of residential real income, etc., private consumption turned to be sluggish and shrank by 3.4% in 2015Q4. Since private consumption accounted for about 60% in the GDP of Japan, sluggish consumption weighted more on the decline of the country’s commodity prices. In January 2016, Core CPI excluding food prices registered nil growth year on year, while Core-Core CPI excluding food and energy prices grew by 0.7% only year on year, down for three consecutive months (Figure 5).

In order to achieve its 2% inflation at the earliest possible time, the Bank of Japan (BoJ) announced plans to introduce negative interest rate in late January 2016, aimed at promoting domestic investment and consumption through the yen depreciation and the asset price rise. However, the implementation effect just ran counter to the central bank’s intention. In fact, the exchange rate of yen against the U.S. dollar went higher due to the intensified fluctuations of international financial markets and the heightened risk aversion. As the potential of interest rate rise by the Fed weakens, the appreciation pressure still weights on yen. BoJ may unveil more stimulation policies to counter deflation and appreciation.

Figure 5: Changes in Japan's Inflation Level



Source: Wind

IV.2 Australia seeking for economic transformation to boost growth power

The GDP of Australia grew by 3% in 2015, for which consumer spending/inventory increase has somewhat offset the continuous decline of investment in mining and related sectors. In 2016Q1, Australia sought for the shift of growth engine, and the service industry has emerged as the new power to drive economic growth. The 2016 GDP is expected to be slightly better than 2015 and maintain a moderate growth. Currently, in Australia, the service industry contributes up to 53% to economic growth and employs 59% of the entire labor force available in the market, while its net export makes a contribution of 0.5% to GDP. The requirements of local & offshore markets for medical care, social service, education and financial service, among others, in Australia will become new growth engines. According to estimation, by end-2016, Australian inflation rate will reach 2.7% and core inflation rate will be close to 2.5%, the mid-value of target range set by the Reserve Bank of Australia, which may narrow the central bank's space for further interest rate cut. In 2015, the Reserve Bank of Australia has reduced interest rate twice in a row, with loan interest rate and AUD exchange rate at their record lows. Alongside the stabilization of commodity prices in the international market recently, business climate will be further ameliorated and employment market will tend to stabilize, too.

IV.3 Emerging economies in Asia Pacific easy to be influenced by external environment

In 2016Q1, emerging economies in Asia Pacific were mainly influenced by the following two external factors:

First, the dynamic change of international capital flowing to and out of emerging markets following the Fed's rate hike is decisive in the financial stability of emerging markets. Capital flights from emerging markets at early 2016 resulted in the massive fluctuations. When the expectation on the Fed's rate hike weakens in February, capital started to flow back to emerging markets and thus revived the Asia-Pacific market. According to the statistics of Emerging Portfolio Fund Research (EPFR), net inflows of stock funds amounted to USD1,684 million in emerging markets in March 2016, and the inflows of other types of funds also increased.

Second, commodity prices were generally depressed, and the market prices of some commodities turned up. If this trend continues, exporting countries of commodities will be benefited. Current account surplus of oil export-dependent countries or regions, e.g. Malaysia, obviously decreased.

In contrast, oil price fall and inflation reduction are favorable factors to crude oil import-dependent countries, e.g. India and South Korea, which have provided new support potentials for their economic growth.

Because major economies in the world are still faced with downward pressure and external demand of emerging economies in Asia Pacific slumps, export decline has caused trade imbalance, those emerging economies must rely on domestic demand to stimulate economic growth, fiscal expenditure, public investment and household expenditure become the power to drive economic growth. Besides, low inflation has provided space for those countries to further ease national monetary policy. In 2016Q1, Indonesia cut down interest rate twice, while Thailand, Malaysia, Taiwan and South Korea will still adopt the easy policy. Economic downturn and larger trade deficit will possibly affect external debt service capacity of selected emerging markets.

V. African economy likely to turn around but Latin American economy still in deep trouble

Overall, economic recovery in the Middle East, North Africa and Sub-Saharan Africa sped up as a result of rising external demands and rebounds in commodity prices, among other favorable factors; whereas the economy in Latin America could hardly make a rally in the short run, due to high inflation levels, aggravated capital exodus, heavy debt burdens and relatively high financing costs.

V.1 Economic growth in Southern Africa picking up speed

2016Q1 witnessed a speed pickup in the economic growth of most countries in Southern Africa. Real GDP is expected to reach 4% for the year, up 0.5 percentage points over the previous year. This was mainly attributable to a rebound in the prices of oil and other commodities, and rising external demands. Energy-rich countries such as Nigeria, South Africa and Angola saw their export revenues increase due to improved terms of trade. However, given the still low commodity prices, growing fiscal gaps and higher debt ratios of these countries, their economic growth rates will be lower than long-term trend values.

In Q2, it is expected that the prices of oil and other commodities will continue to rebound, Business Confidence Index gradually rise, global liquidity relax, foreign capital inflows and investments increase, and the economy of Southern Africa continue to turn around. Specifically, power and energy shortages in Nigeria will be alleviated to some degree, with its GDP growth rate projected to reach 4.1% in 2016, up 1.1 percentage points over last year. However, power shortage, faltering business confidence and strained labor relations will remain a drag on the economic growth of South Africa, whose GDP is expected to grow by 1.0% in the year, down 0.3 percentage points from the previous year. The economy of the entire Southern Africa will fall short of a full recovery in Q2.

V.2 The Middle East and North Africa performing well

Economic growth in the Middle East and North Africa accelerated in 2016Q1, and is expected to reach 3.6%, up 1.1 percentage points over last year. Oil-exporting countries in the region, especially members of the Gulf Cooperation Council, are expected to recover first; Iran, Iraq, Algeria, Libya, Yemen, and other oil-exporting developing countries will benefit from a rebounding oil price; with certain development in economic diversification, the economy of oil-importing countries such as Egypt, Tunisia, Lebanon and Jordan will nudge up.

The Middle Eastern and North African economy will continue to turn around in Q2. With the Fed putting off further rate increases, the dollar has peaked on a phased basis, and commodity prices will continue to stabilize and rise again, which is definitely a huge boost to oil exporters in the Middle East. Loose liquidity worldwide and lowish consumer price levels will enhance energy and commodity consumption in high-income countries. National governments have taken various measures to develop a diversified economy and improve their industrial structure; non-oil sectors will become a key engine for economic growth. Saudi Arabia, in particular, has adopted a new budget plan and economic reform proposal to diversify the sources of its fiscal revenue, and cut back its dependence on oil income; the series of measures will spur the economic recovery of the country. Despite all of these, there are still some uncertain factors that will undermine the economic growth in the Middle East and North Africa, such as persistent depression in oil prices in spite of the current rebound, hard-to-improve fiscal deficit, insufficient investment in "intangible" capital including education, innovation and patent system, and widespread corruption. Therefore, we remain cautiously optimistic about the economic prospect of the region.

V.3 The Latin American economy trapped in deep recession

In 2016Q1, economic growth in Latin America stalled, and financial risks were not mitigated obviously. Local GDP is expected to grow by -0.3% in 2016, on par with last year, posting negative growth for two consecutive years. Economic growth in the region is rather divided, with South America in economic recession; Central America and the Caribbean region growing positively. By country, Brazil is not only suffering from an economic downturn, but also confronted with complicated social circumstances and political conflicts. Its GDP is expected to grow by -3.0% in 2016, and the situation remains grim. Mexico relies mainly on exports to shore up its economy, and trade accounts for one third of its GDP; but low oil prices and a slowing American economy have held back the country's economic growth. Its GDP is expected to increase by 2.6% in 2016, slightly higher than last year. Oil alone accounts for over 90% of Venezuela's export trade, so persistently low oil prices threaten to keep the country in economic recession for the third straight year.

With the world economy stabilizing and recovering, commodity prices rebounding and the Fed slowing the pace of rate hikes, the Latin American economy is expected to edge up in Q2. However, high inflationary levels, capital flights and heavier debt burdens, among other factors, still haunt regional economic development; and financial risks remain quite high. In light of the above, it is difficult to feel upbeat about the region's future prospect.

Part II Global Financial Review and Outlook

I. Greater Volatility in Financial Markets Has Imposed New Pressure on Global Financial Stability

I.1 Financial volatility in both developed and emerging markets beated expectations

In 2016Q1, global financial markets continued the volatile trend starting from the second half of 2015, with financial volatility in both developed and emerging markets beating expectations.

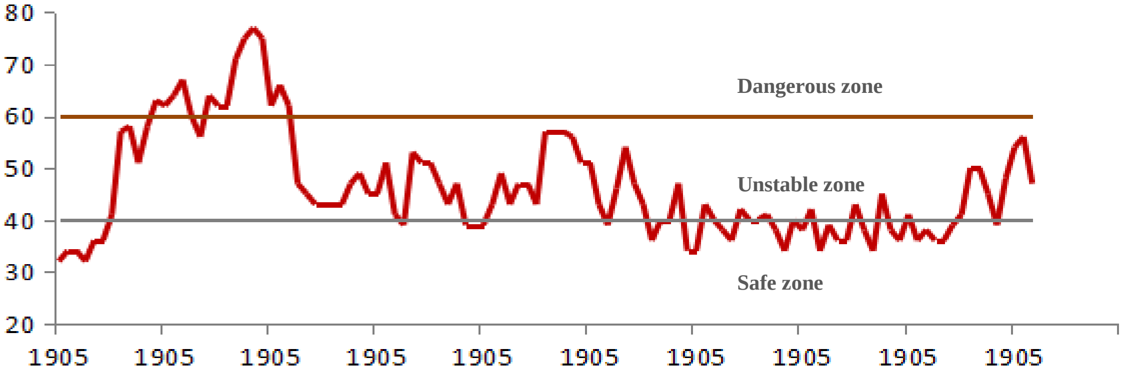
Sharp fall in energy prices, weak growth of the real economy, faltering spending by businesses and residents, and disparities in monetary policies adopted by the central banks of developed economies all led to continuous and fiercer volatility in the financial markets of developed countries. Uncertainty about and rising interest rate spread in the interbank and non-financial enterprise money markets, and stricter regulation of these markets resulted in the contraction of the commercial paper market. The world’s major stock markets fluctuated more acutely; MSCI and S&P 500 Indexes dipped substantially; amid rising volatility, banking stocks performed even worse. New regulatory requirements forced financial institutions to cut back their bond holdings, and led to fewer market-making and arbitrage businesses, hence reducing the depth of bond market. The above factors, in turn, gave rise to asset price distortion, including interest rate swap prices lower than treasury bond prices of the same maturities, yield spread of corporate bonds lower than that of their derivatives – CDS, and insufficient market liquidity. A contracting repo market aggravated market liquidity squeeze, and the liquidity risk of bond markets, especially high-yield bond fund market, remained high. Moreover, negative interest rates adopted by major central banks further intensified price distortion of financial assets and funding mismatch, and drove investors to chase high-yield and high-risk assets. The Fed began tightening its monetary policy, causing a shortage of dollars worldwide, which would continue in the rate hike cycle. In conclusion, the credit risk, market risk and liquidity risk in developed markets have increased to varying degrees in 2016; whereas the policy instruments of major central banks are still poised to tackle the previous crisis and running at full load, restricting their capability to cope with new crises.

Due to slower economic growth, depressed markets for commodities such as energy, industrial metals and agricultural products, and overleveraged economy, the degree and breadth of financial market volatility in emerging markets have exceeded developed markets, with local currencies devaluing against the U.S. dollar, stock markets tumbling, and risk premium rising. Major risks are concentrated on widening exposures to dollar-denominated debts, worsening capital flight and bank credit quality as a result of a rising U.S. dollar. The credit risk, market risk and sovereign debt risk of emerging markets remain relatively high as a whole, with the financial vulnerability of many countries surging. Recent market volatility which was moderate has lowered the risk appetite of investors, raised risk premium, and helped to contain overexpansion of markets. In the middle and later stages of Q1, as the recession risk of the U.S. and global economy decreased, and oil prices rebounded, financial markets gradually showed signs of stabilization: stock markets rallied, with lower volatility; more high-yield bonds were issued, with smaller yield spreads; the momentum of capital outflows in emerging markets was mitigated, ending the capital flight trend that had lasted for over two straight quarters, and capital backflows to stock markets were better than expected; investors' risk appetite for emerging markets gradually recovered. All this created the opportunity for assets in emerging market to rebound. However, the overall trend of currency devaluation in emerging markets has not improved notably, and the dollar debt exposures of enterprises will persist.

I.2 ROFCI approaching the dangerous zone

In 2016Q1, the monthly average of the U.S. risk of financial crisis index (ROFCI) rose from 44 in the previous quarter to 52.33, still in unstable territory and approaching the dangerous zone. The sectors featuring rising risks and lowering stability included: stock market (esp. banking stocks) and bond market (esp. corporate bond market), non-financial money market, foreign exchange market and macro economy. ROFCI pointed to a general rise in credit risk, market risk and liquidity risk. However, according to the movement, the ROFCI hit a peak in February, a new high since 2011, but fell back considerably in March as markets gradually stabilized (Figure 6). In Q2, with uncertainty about the Fed's interest rate policy lowered, and economic growth prospect improved, the stability of financial markets is likely to increase, and the ROFCI may fluctuate between the edges of the unstable zone and the dangerous zone.

Figure 6: Movement of the ROFCI



Sources: New York Branch of BOC, BOC Institute of International Finance

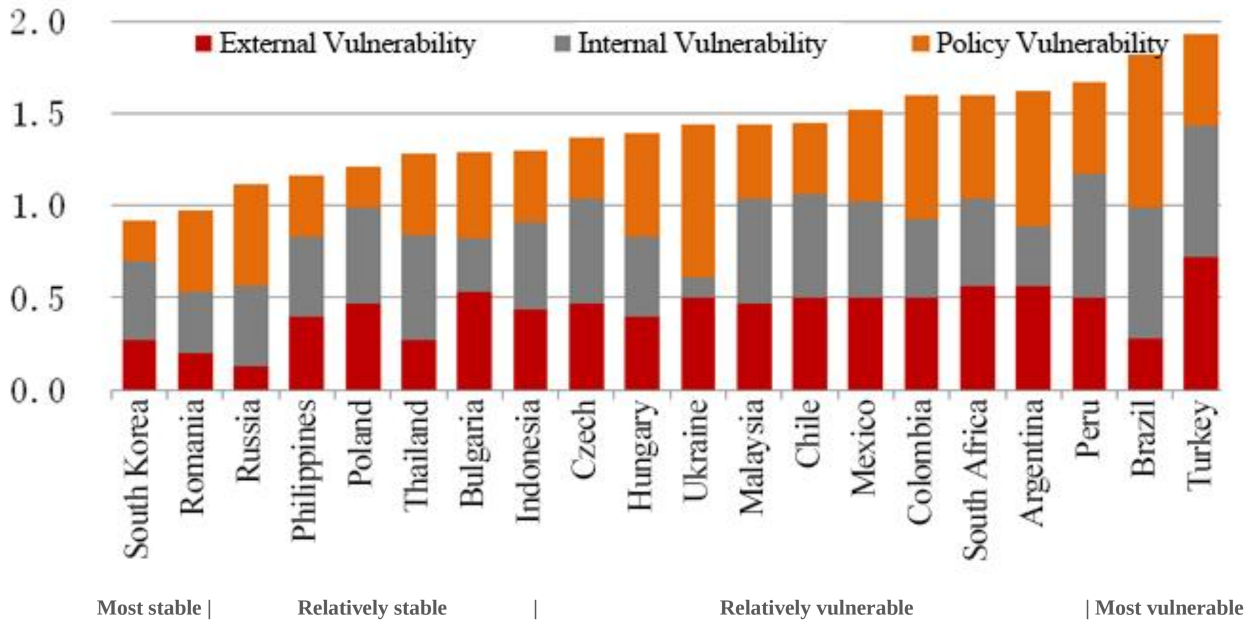
I.3 Financial risk monitoring indexes of emerging markets

We have analyzed and ranked the financial vulnerability of emerging economies according to the Emerging Economy Vulnerability Index issued by the Institute of International Finance (IIF):

One country's financial vulnerability index consists of three parts: external financial vulnerability, which is based on the degree of its dependence on foreign capital; domestic financial vulnerability, which is based on the status of its financial sector and real economy; economic policy vulnerability, which is based on the policy credibility and political stability. The total scores of the country's financial vulnerability are derived from comprehensive analysis of the above three parts, and then it will be ranked by four levels: most stable, relatively stable, relatively vulnerable and most vulnerable.

As shown in Figure 7, in 2016Q1, Turkey ranked first by external vulnerability; Brazil, Peru, Indonesia and Turkey were at the top by domestic vulnerability; Brazil, Argentina, Ukraine and Colombia were the most vulnerable in terms of policy. Taken together, the most vulnerable was Turkey, followed by Brazil, Peru, Argentina, South Africa, Colombia, Mexico, Chile, Malaysia, Ukraine and Hungary. Seen from changes, the number of most vulnerable countries decreased, while that of vulnerable countries increased. Overall, the financial vulnerability of emerging markets improved to a certain degree.

Figure 7: Financial Vulnerability Index of Major Emerging Economies (March 2016)

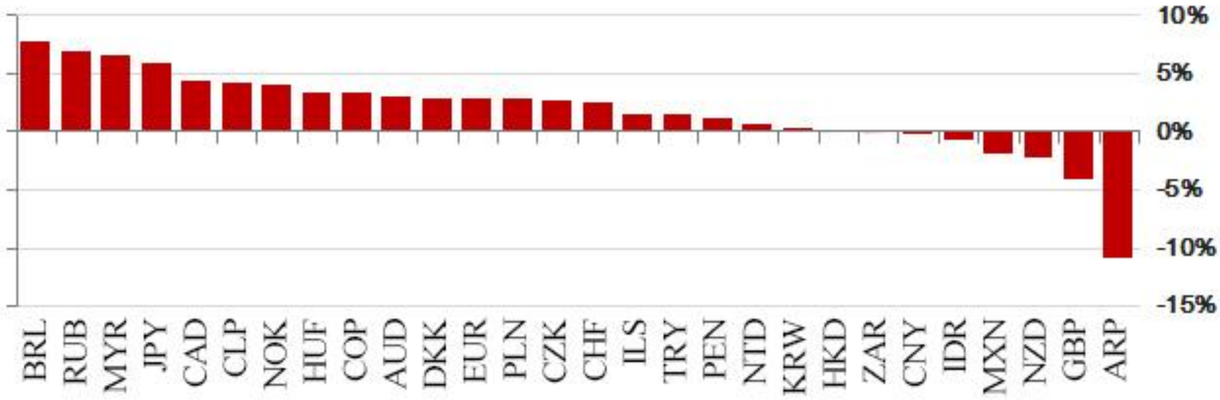


Sources: IIF, BOC Institute of International Finance

II. Foreign Exchange Market: a Falling Dollar Dominated Global Trends

In 2016Q1, the global foreign exchange market showed a trend of the U.S. dollar edging down and other currencies rebounding generally, as the Fed put off further interest rate hikes (Figure 8). Going forward, the foreign exchange market will continue to be swayed by the Fed, and more disparities in monetary policies of major economies will probably intensify exchange rate fluctuations.

Figure 8: Changes in the Exchange Rates of Major Currencies against the U.S. Dollar as Compared with the Year Beginning (as at March 25, 2016)



Sources: Bloomberg, BOC Institute of International Finance

The U.S. Dollar Index dipped amid volatility. Since 2016, the U.S. economy has remained mildly expansive as a whole, with employment in good condition, but enterprise investment and net export still weak, which fails to lay a solid foundation for a continuously strengthening dollar. A sluggish world economy and acute turbulence in financial markets pose a threat to the economic prospect of the U.S. The Eurozone, Japan and other major economies all adopt a loose monetary policy, which is so divided from the U.S., and indirectly aggravates exchange rate volatility of the U.S. dollar. Based on actual conditions and estimated economic conditions, the Fed maintained a prudent stance and kept the interest rate unchanged, thus postponing the overall rate increase process, which bucked last year's trend of a rising dollar and alleviated the appreciation pressure on the U.S. dollar. The U.S. Dollar Index corrected amid volatility in 2016Q1. On March 25, it stood at 96.2626, down 2.45% from the beginning of the year.

EUR and JPY rallied amid fluctuation, while GBP took a hard hit. 2016Q1 witnessed a weak economic recovery in the Eurozone, with the banking sector in financial distress. Coupled with pressures from the refugee crisis, UK's exit from the EU and other political factors, the euro's exchange rates fluctuated more intensely. Despite the interest rate cuts and QE expansion by the European Central Bank, the EUR was forced out of an overshoot and to rebound temporarily as a result of the Fed's postponement of further rate increases and a falling dollar. As of March 25, the exchange rate of the euro against the dollar was 1.1163, up 2.81% over the beginning of the year. From the beginning of 2016, the pound gradually fell against the dollar, as a result of slowing economic growth in the UK, the Bank of England backing down from the rate hike position, and profit taking from recent gains. Especially rising apprehension about a Brexit further stoked the bearish sentiment in the market, with the pound devaluating by 4.06% against the dollar as compared with the beginning of the year. Despite the persistent slump of the Japanese economy in 2016Q1 and a negative interest rate policy enforced by its central bank, the yen still surged due to heightened risk aversion in the market and appreciated by 6.32% as compared with the start of the year.

The currencies of emerging markets and commodity-exporting countries underwent a general rebound. After substantial falls and exchange rate revaluations, the currencies of emerging markets staged a phased rebound with the U.S. dollar falling. The Brazilian real, Turkish lira and South African rand, among others, appreciated to varying degrees; the exchange rate of the renminbi fluctuated at the start but showed signs of stabilization lately (Figure 9; see *China's Economic and Financial Outlook* for relevant analysis). According to the date of the Institute of International Finance (IIF), capital inflows and outflows of emerging markets basically leveled off in February 2016, ending the trend of net capital outflows for seven consecutive months, and helping the currencies of emerging economies to stabilize. As of March 25, MSCI and JPMorgan Emerging Market Currency Indexes rose by 1.98% and 2.40% respectively over the beginning of the year (Figure 10). The commodity market bottomed out; prices of crude oil and iron ore, among others, all rose; the S&P Goldman Sachs Commodity Index increased by 2.51%. This allowed the currencies of commodity exporters to pick up, such as the Russian ruble, Canadian dollar, Chilean peso, Australian dollar and New Zealand dollar.

Figure 9: Trend of the USD/RMB

Figure 10: Emerging Market Currency Index

Sources: Bloomberg, BOC Institute of International Finance

In 2016Q2, the foreign exchange market will still follow the guidance of the Fed, correct and fluctuate in expectation of interest rate rises for the dollar. The mild growth of the U.S. economy, and strong performance of its labor market with unemployment rate at the lowest level since the crisis has made it outdo other developed economies on the whole and supported the dollar to stay at a relatively high level, as its core CPI for February posted the largest increase since October 2008, making an economic recession impossible. Despite rising external risks and the Fed's postponement of further rate increases and adjustment of its forward guidance on the number of rate rises from 4 to 2, its monetary policy is still in sharp contrast with that of other major economies; so anticipation for a rate rise in June will push up the dollar in Q2. The euro can hardly maintain its ascent under the combined effects of a faltering real economy as a whole, over-leverage and political factors. The referendum on UK's exit from the EU in June will intensify uncertainty about the UK economy and financial market, and put the pound on a downward spiral. But the Japanese yen will maintain its rising momentum as global risk aversion grows and overseas assets flow back. It is projected that with the dollar rising again in Q2, the currencies of emerging markets and commodity exporting countries will devalue for another round, but with limited room for falling. Nevertheless, the real economy of Latin America, in particular, is too weak for a solid recovery, and its political and social issues are yet to be improved substantively, so the risk of foreign exchange fluctuations in Brazil and Argentina, among others, still exists.

III. Stock Markets will Diverge at Different Levels

III.1 Global stock markets showed a "V"-shaped trend in 2016Q1

2016Q1 saw acute volatility in global stock markets, which rallied after falling. In early February, global stock markets tumbled amid turbulence, with financial stocks leading the way, mainly attributable to slower economic growth in the U.S., Japan's announcement of adopting a negative interest rate policy and heavy financial losses of the European banking industry. From February 6 to February 11, the MSCI World Index dipped 20% from a high point (Figure 11); the Dow Jones Industrial Average, Nasdaq and S&P 500 tumbled by 3.4%, 2.2% and 2.7% respectively, with

American banking stocks dropping by over 8%; the FTSE 100, CAC40 and DAX fell by 5.3%, 7.2% and 5.7% respectively. Of which, European banking stocks led the fall, losing more than 20%, with Deutsche Bank, Credit Suisse and Societe Generale, among others, battered hard and dipping to historical lows, which dragged down the performance of global banking and insurance stock indexes (Figure 12). In March, the ECB further implemented the loose monetary policy of negative interest rates and a bigger bond purchasing scale, while the Fed temporarily shelved its rate increase plan, which partly assuaged market tensions and prompted global stock markets to stage a rally. As of March 25, the MSCI World Index rose by 10.2% over the lowest level recorded in the year; the Dow Jones Industrial Average regained its lost territory, up 0.5% over the beginning of the year; the FTSE 100, CAC40 and DAX increased by 11%, 11.2% and 13.2% respectively over their lowest levels in the year. Asian stock markets also displayed a trend of falling first and picking up later. As of March 25, Japan's Nikkei 225 index surged to 16936.4 points from its lowest level in the year, up 16.6%; and South Korea's KOSPI increased by 9.1% over its lowest point recorded in the year.

Figure 11: MSCI World Index and VIX

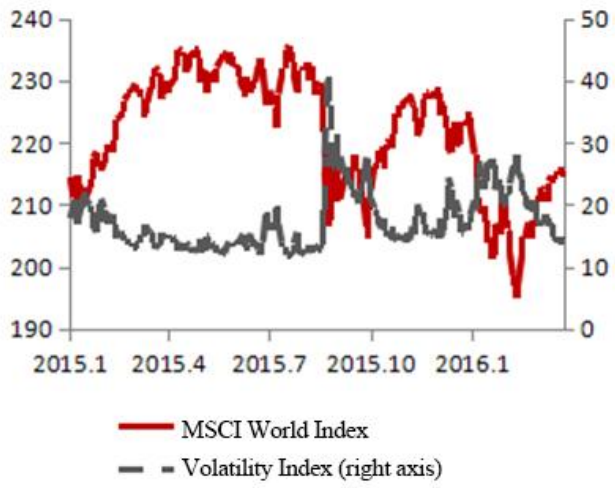
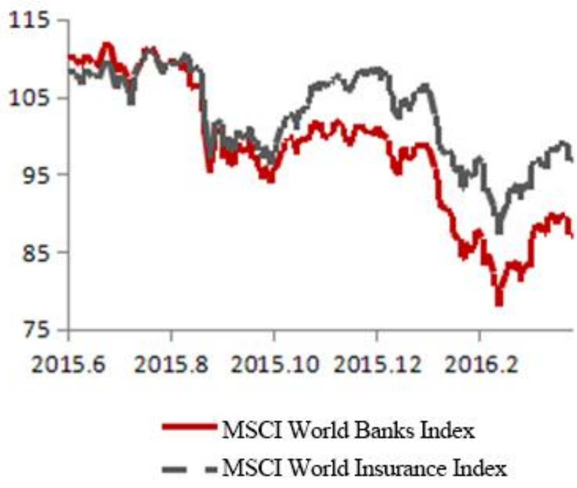


Figure 12: MSCI World Banks and Insurance Indexes



Sources: Wind, BOC Institute of International Finance

III.2 Global stock markets will rise again amid volatility in 2016Q2

In Q2, it is expected that the real economy of developed countries such as the United States, Japan and those in Europe will stabilize; major central banks including BoJ and ECB will continue with a relaxed monetary policy, with market liquidity remaining ample; and the stock markets of major developed economies will rally amid fluctuation and tend to stabilize. The number of countries with negative interest rates will increase; imposing a negative interest rate tax on deposits and a loose monetary policy will release more capital into capital markets; with too much liquidity in the market, the prices of treasury bonds will rise, but their yields decrease or even become negative, and capital flow from bond markets to stock markets.

The stock markets of emerging economies will also turn around. With the Fed slowing the pace of rate increases and commodity prices rebounding, the speed of net capital outflows in emerging economies may decelerate. Especially for those in South America, their stock markets will stabilize first, as they are set to raise interest rates to cope with the risks of inflation and capital flight. Emerging economies in Asia Pacific, as represented by India, perform quite steadily, and are in the cycle of interest rate cuts, with relatively ample liquidity, which will prop up their stock markets.

III.3 Poorer performance of European banks may intensify stock market volatility

Steep falls of global stock markets at the beginning of the year mainly resulted from financial losses of the European banking sector, which remains to be the storm center of global stock markets. Deutsche Bank released its 2015 annual report in January 2016, posting a full-year loss of EUR6.8 billion, higher than the level recorded during the 2008 financial crisis. Credit Suisse also posted a loss of CHF2.4 billion for 2015. The asset quality of the European banking sector is relatively low, and the overall NPL ratio of the Eurozone is above 6%, with great risk exposures in the areas of energy and commodities. As a result, investors are all the more worried about the profitability of the European banking sector, capital buffers, negative interest rates and increasingly exacting regulatory requirements. From the start of 2016 up to now, the MSCI Europe Financials Sector Index decreased by a total of 9.66%.

However, the grim situation of the European banking sector of late is far from being alleviated. The ECB announced its decision to further cut interest rates by 10 basis points at the meeting on March 10; then the overnight deposit rate hit an all-time low of -0.4%, which will further squeeze the profit room, narrow down the spreads and hold down the stock prices of the banking sector. Moreover, the issue about the UK's exit from the EU will also affect the economic recovery and future trends of stock markets in Europe. Once the UK votes to exit the EU, risk-aversive capital will flee and European stock markets will get more volatile.

IV. Yields of Sovereign Bond Markets Will Stay at a Low Level

IV.1 Global bond markets become divided amid volatility

Global sovereign bond markets have gone divided since 2015Q4, with European bond yields fluctuating constantly, U.S. treasury yields being stable and rising, and Japanese government bond yields stable but declining somewhat (Figure 13). The yield of 10-year U.S. treasury rose from a low of 2.07% to 2.43%, up 17.3%, indicating increasing expectations for further interest rate hikes and market concerns about the Fed's exit from its QE program. The yield of 10-year German bonds moved from a low of 0.45% in Q4 to a high of 0.73%, with a change of up to 62.2%, showing obvious oscillation and underlying uncertainty generated from the resistance of core nations in the Eurozone against the loose policies of the ECB. Moreover, the ECB has extended its loose policies as it promised, but still failed to boost market confidence, which also partly led to the bond market turmoil. Continued decrease in the yields of Japanese government bonds has mirrored a slugging Japanese economy, with risk-aversive capital rushing into the bond market for safety.

Figure 13: Comparison of the Trends of 10-Year Government Bond Yields of Selected Countries (%)

Sources: Wind, BOC Institute of International Finance

IV.2 Global sovereign bond yields will stay at low levels in 2016

The government bond yields of major economies are expected to remain at low levels throughout 2016. With the U.S. economy stable and healthy, the yield of short-term U.S. treasuries may go up due to uncertainty about the time of the next rate increase by the Fed, but the trend of long-term treasury yields will continue to remain at a relatively low historical level. The ECB fully supports economic recovery in the Eurozone in terms of monetary policy and has launched relaxed fiscal policies continuously, so it is highly likely that the yields of sovereign bonds in the zone will stay at the currently low level. In March, Japan became the second country after Switzerland to sell 10-year government bonds at a negative yield. Policymakers resort to increasingly radical measures to stimulate economy, resulting in substantial decreases in borrowing costs worldwide, which has also reflected the weakness of the real economy in the world to a certain degree. The yields of Japanese government bonds are expected to remain at a negative level in attempts to spur investment in the real economy. Although credit ratings agencies downgraded the sovereign credit rating on China, China's T-bond market has maintained relative stability. The Chinese central bank launched a policy to cut the reserve requirement ratio in March, with an eye to leading the G20 countries to jointly stimulate economic growth worldwide. After that, the yields of long- and short-term T-bonds all decreased, showing rising demand generated from greater market confidence.

IV.3 Interest rate increase in the U.S. resulted in disparities of bond markets

The Fed announced a rate increase of 25 basis points in December 2015, the first of its kind in a decade or so. Prior to that, the yields of U.S. treasury trended slightly higher with rising expectations for rate hikes. After the rate increase, the yields of U.S. short-term bond market would rise along with the benchmark interest rates; but with continually increasing demand for 10-year U.S. treasury, the yields began to fall. The ECB cut the deposit rate by 10 basis points to -0.3% in the same month, and launched a new round of monetary stimulus policies in March 2016. As the core nations in the Eurozone remained hesitant about a loose monetary policy, the yields of Eurobonds kept fluctuating. With the announcement of the decision to cut interest rates, the Eurobond yields started to diverge from those of U.S. treasury, and showed a descending trend.

V. Commodity Markets Are yet to Hit the Bottom amid Turbulence

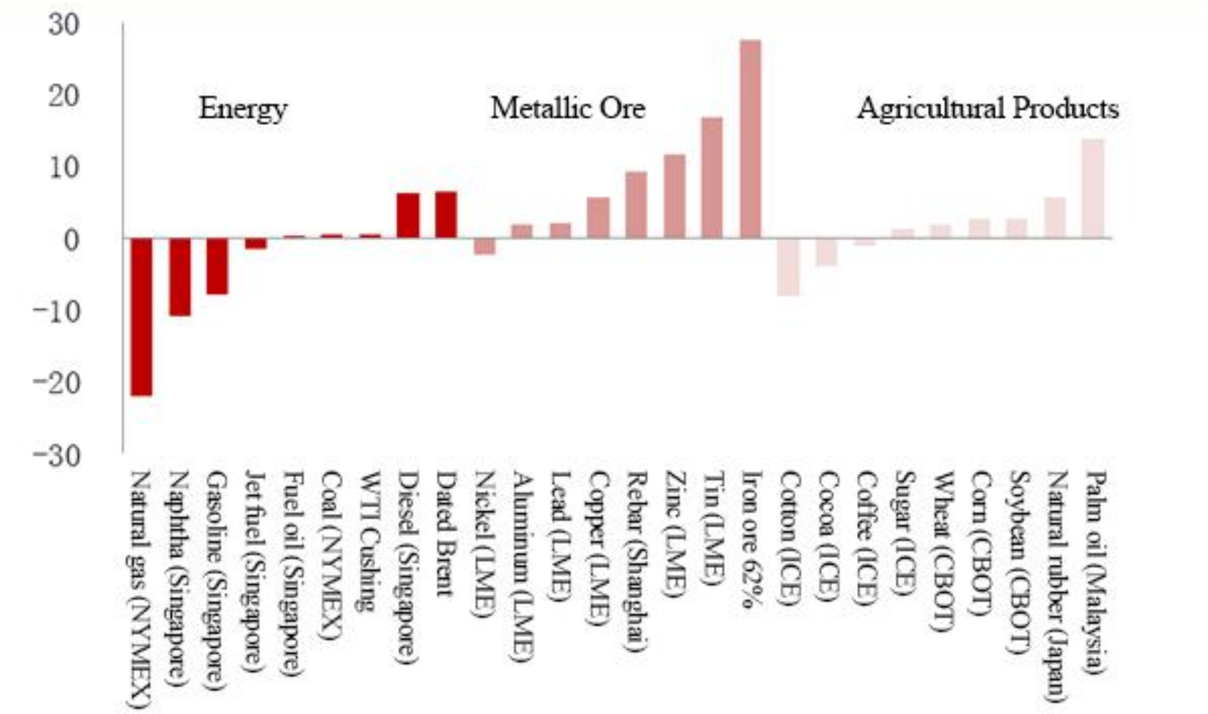
V.1 Commodity market volatility surged in 2016Q1

Just at the beginning of 2016, the international energy market jolted the world with its high volatility. As Iran announced it would implement the contents of the framework agreement on the Iranian nuclear issue, which was earlier than market expectations, the prices of Brent and WTI, the world's two major benchmark oils, dipped below USD30/barrel in January, hitting a 12-year low. Since February, bullish and bearish forces fighting each other have caused great turmoil in the energy market, due to the reverse development of the dollar index, crude oil inventories setting new records, and the anticipation for "maintenance" and "reduction of existing outputs" among OPEC and non-OPEC countries. In the industrial metallic ore market, different from last year's general trend of sharp falls, the prices of almost all the industrial metals showed a rising momentum as of mid-March, as a result of the expectation for more economic stimulus policies by the Chinese government, production reduction agreements of major manufacturers and rising demand after the Chinese Lunar New Year. Iron ore, in particular, led the rise due to temporary supply conflicts (caused by weather) and short covering. In the agricultural products market, high output and high inventory still undermined the overall performance of the market, but the prices of some agricultural products like palm oil still surged under the impact of El Nino (Figure 14).

V.2 Commodity markets will continue to seek the bottom in 2016

Global commodity markets will remain volatile and sluggish throughout 2016. Relative to global demands, commodities currently depend more on world economic trends, especially the economic growth demand of emerging markets. Slowdown in the economic growth of major emerging countries represented by China will also affect the increase rate of demand for global commodities.

Figure 14: Increase Rate of Commodity Prices Compared with the Year Beginning (March 14, 2016,%)



Sources: Bloomberg, Singapore Branch of BOC

On the supply side, different commodity markets are confronted with varied situations. In the energy market, the focus is placed on the probability of Russia and OPEC countries finally concluding and implementing the "maintenance of existing output" agreement (which seems very slim now). Given the historically high crude oil production level of major oil producers and large crude oil inventories worldwide, we think it difficult to support a substantial and long-term rebound of crude oil prices even if such agreement is reached. Moreover, the resilience of American shale oil producers and their quick response to market prices, as well as Iran's sustained efforts to regain the market share lost due to sanctions will all limit the price increase rate in the energy market. Instead, only substantive reduction of production, or a rapid economic recovery can prop up the market.

In the industrial metallic ore market, Chinese producers have announced a series of joint production reduction measures of varying degrees in all the major industrial metal sectors since November 2015 in a bid to shore up faltering prices, as the world's major miners including Glencore and Freeport all have cut down their production. So far, these measures are generating results, with market supply of zinc and tin gradually tightening. The production of industrial metals is supported by lower production costs and energy costs in dollar terms.

In the agricultural products market, different products have delivered different performance due to varied climatic conditions in main producing areas, which results in great uncertainty about market prospects. At the moment, the prices of wheat, corn and other grains are facing downward pressure due to relatively high output and inventories; whereas the prices of white sugar and palm oil have built up the momentum to rise due to lower production caused by poor weather.

V.3 The prospects of commodity markets remain quite uncertain

A consensus has been reached that commodities represented by crude oil will continue their weak performance during 2016, and the disagreement lies in when a market rally will begin, Current estimates point to the period from the second half of 2016 to 2017, during which commodity prices need to stay at low levels for a relatively long time to beget the result of substantive reduction of production. Take the energy market for example, the time and intensity of a market rebound depends on the progress and force with which the U.S.' high-cost shale oil exits the market, the probability of the OPEC and Russia reaching agreement on "maintaining the existing output" and the actual implementation effect of such agreement, the process of Iran's resumption of oil production, and the possibility of supply disruption in Iraq and Nigeria, among others. All in all, only through substantive reduction of production over a period of time can commodity prices rebound from current low levels.

Part III Analysis of Hot Topics

I. Facts about the U.S. Labor Market Recovery and Its Impact

I.1 Reasons for the rapid increase in employment rate amid low economic growth in the U.S.

In the short run, there isn't a strong positive relationship between employment and economic growth. But in the long run, there indeed exists a relatively strong correlation between the two, also known as the "Okun's law". The U.S. labor market has improved continuously over a period of more than one year, which led the Fed to start an interest rate increase in December 2015, the first of its kind in almost a decade. But how should we interpret such an exceptional boost in the U.S. labor market against the backdrop of slow GDP growth?

One of the reasons behind this is significant change in the U.S.' economic structure. According to the data from the U.S. Bureau of Labor Statistics, workers in the labor-intensive service sectors accounted for 86% of the country's total labor force in 2015, up 2.3 million; but jobs in the capital-intensive manufacturing sector only accounted for 9% of the total, up 3,000 only. Take for example the manufacturing sector and energy production sector that were hit hardest lately, their contributions to employment are far lower than those to GDP (around 25%). In recent years, as the U.S. manufacturing industry and export have gradually slid into recession due to a strong dollar, the U.S. economy, driven by the internal demand of labor-intensive service sectors, maintains the strength of its labor market on the one hand, and keeps warding off the impact brought by the slump of global and peripheral economies on the other hand.

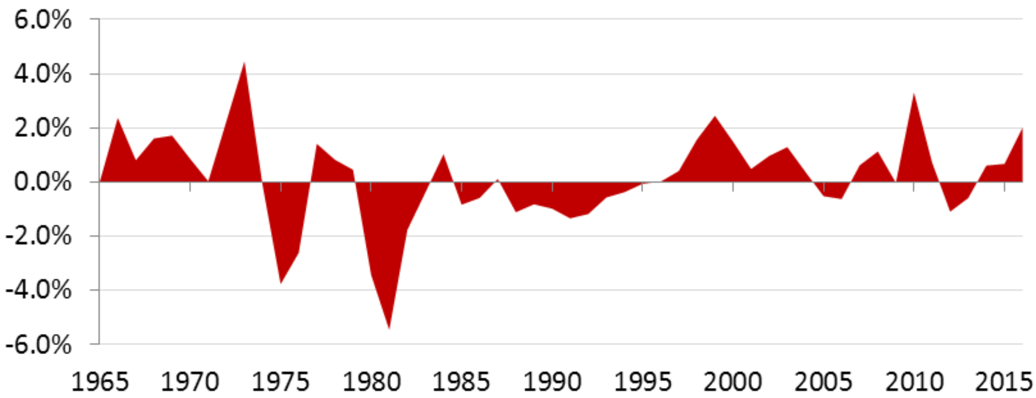
Another reason is that the growth of low-level labor productivity stokes the urge of American enterprises to emphasize short-term employment. In many American businesses, the management has been hesitant about additional investment in new machines and technologies, but is usually urged to add new workers in the short term. Although that helps increase short-term employment, it cannot boost productivity fundamentally, and it is difficult to realize the true potential of economic growth. Some economists even assert that the U.S. economy has entered a so-called phase of secular stagnation.

In addition, one pessimistic notion holds that the latest strength of the labor market is just a delayed phenomenon, or a delayed response to the relatively strong GDP in 2015Q2. The current labor market is not so strong as the data show. In addition to the fact that the narrow measure of unemployment (U3) has dropped to 4.9%, the broad measure of unemployment (U6), which stands at 9%, and a falling labor force participation rate (down from 66% to 62.6% in the past 10 years) both indicate there is still much to be improved inside the U.S. labor market; or rather, the force of labor market recovery in this economic recovery cycle is not so strong as that in previous cycles.

I.2 Transmission of inflationary pressure by the labor market recovery and its implications

General economic theories hold that when the increase rate of wage costs of the labor market exceeds the growth rate of productivity, businesses will transfer the increased wage costs to consumers, thereby pushing up inflation. So, productivity-adjusted wage change is usually the precursor of future inflation. The latest U.S. nonfarm payrolls report shows, the average hourly wage increased by 2.5% year on year, which was disappointing as compared with the 1980s, 1990s and mid-2000s. Wage growth in the 1970 was strong, but still could not keep up with the rate of inflation over the years. In the late 1990s, the growth momentum of the labor market and household income was not as strong as the 1970s, but exceeded the rate of inflation. Then the consumer confidence index also hit the peak. Now, wage growth has once again outpaced inflation, like that in the late 1990s. The current level of inflation is even lower, mainly attributable to falling oil prices and a strong dollar. In the past half a century, the difference between wage growth rate and inflation rate would reverse once hitting 2% (Figure 15). But lately when the difference touched 2%, the inflation index would still rise; hence whether wage growth will inevitably lead to inflation is still to be confirmed.

Figure 15: Difference between U.S. Wage Growth Rate and CPI Increase Rate



Sources: Wind, BOC New York Branch

I.3 Impact of the labor market recovery on the Fed's interest rate policy and the exchange rate of the dollar

In the last few months, U.S. nonfarm payrolls data showed an extremely big increase of employment, with the unemployment rate dropping to 4.9%. Wage growth in January 2016 even sped up, which was undoubtedly a sign of continued contraction of the U.S. labor market. On the face of it, a strong labor market plus a rebounding PCE index which began lately will soon prompt the Fed to resume interest rate increases; but this assumption has ruled out the atmosphere and characteristics of the U.S. economy and global markets.

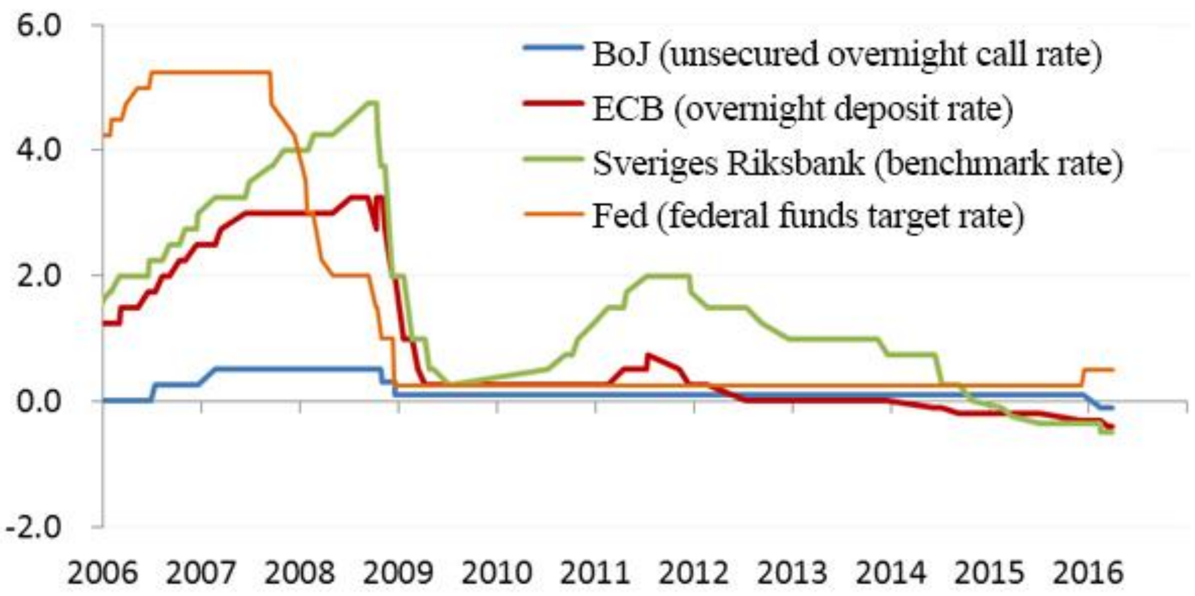
Though the broad measure of unemployment (U6) of the U.S. labor market remains high, the labor force participation rate is relatively low and wage growth quite slow. Despite the fact that the narrow measure of unemployment has kept falling in recent years and fell to 4.9% lately, the real unemployment rate, U6, stands at 9.9%, still higher than 8.4% recorded in mid-2007. Wage growth rate has hovered around 2.5%, far lower than that of previous cycles. Despite a speedup in wage growth in early 2016, whether that will form a trend remains to be seen. All this indicates there is still room for improvement in the U.S. labor market. At the same time, slowing economic growth in emerging markets, and panic generated from financial market volatility have reflected the fragility of global financial markets. Then plunge in world stock markets have forced the Fed to take into account the U.S.' peripheral market factors to determine its monetary policy.

As the U.S. GDP shows a trend of moderate growth, coupled with a rising PCE and stronger labor market, the Fed did not make any rate increase decision at its March meeting, and is more likely to reconsider the timing for further rate hikes in the middle of the year. We expect the Fed to raise interest rates twice throughout 2016. Judging by the trend of its exchange rates, the dollar will remain volatile against the euro and the yen, and may appreciate against the currencies of emerging markets, with the dollar index (DXY) swaying between 94 and 100. Overall, the bull cycle of the dollar has not ended yet.

II. Negative Interest Rate Policy of Global Central Banks: Trap, Confusion or Hope?

After the 2008 global financial crisis, major developed countries cut their policy interest rate to levels around zero. With BoJ launching a negative interest rate policy in 2016, five central banks worldwide have resorted to this unconventional monetary policy. Nevertheless, the Fed started to raise interest rates at the end of 2015, further deepening the monetary policy disparities among developed economies (Figure 16).

Figure 16: Policy Rates of the ECB, Bank of Japan, Sveriges Riksbank and the Fed (%)



Sources: Wind, BOC Institute of International Finance

Practices on negative interest rates. In the 1970s, the Swiss central bank was the first to experiment with negative interest rates for foreign accounts, in an aim to stop capital inflows. In July 2009, the Swedish central bank lowered the deposit reserve ratio for commercial banks to -0.25% to encourage banks to grant more loans, instead of holding more reserve funds. Then the Danish central bank followed suit in July 2012 in a bid to prevent huge capital inflows from undermining exchange rate stability; then restored positive interest rates in April 2014 after the mitigation of the European debt crisis; but introduced negative interest rates once again in September 2014. What the ECB and BoJ have done is more influential. In June 2014, the ECB revised down the deposit rate to -0.1% for the first time, and cut interest rates three times in September 2014, December 2015 and March 2016 to -0.4%. In January 2016, BoJ introduced a policy of "quantitative and qualitative monetary easing with a negative interest rate" in attempts to realize the 2% inflation target as early as possible.

The motives for negative interest rates include supporting inflation or suppressing appreciation. The motives of these central banks for launching the policy fall into two categories in general: one is supporting inflation expectations, as represented by the ECB and BoJ, both of which intended to achieve their inflation target by holding down the exchange rates of local currencies and bringing in imported inflation; the other is alleviating the appreciation pressure on local currencies, as represented by the Danish, Swiss and Swedish central banks. The three nations, all being small economies in Europe, have not adopted the euro, but are closely related to the economy of the Eurozone. During the European debt crisis, large amounts of risk-aversive capital flowed into the countries, imposing appreciation pressure on their exchange rates and affecting local economic performance. Therefore, the three countries decided to launch the negative interest rate policy to mitigate capital inflows and maintain relative stability of their currency value.

Effects of negative interest rates. Theoretically speaking, negative interest rates will reduce interest rate differential, which, in turn, can prompt financial institutions to pump their surplus funds into the market, encouraging investment and consumption. Some funds may enter stock markets and other asset markets, offering a boost to the stock markets. Investors may dump a currency and invest in other currencies with higher returns, causing currency devaluation. The five central banks achieved the following actual effects after implementing negative interest rates:

First, helping lower market rates. Negative interest rates work most obviously on overnight rates, as the overnight call rates in the regions have all dropped below zero. And its influence on other money markets has also gradually materialized. In the Eurozone and Switzerland, money market rates change with the deposit rate of central banks. In Sweden, money market rates vary with the repo rate. Long-term interest rates, such as the yield of government bonds, have also declined. Over USD3 trillion government bonds worldwide have had negative nominal rates. The yields of five-year German bunds and 10-year Swiss government bonds are both negative.

Second, pushing up asset prices to a certain degree. As the deposits placed by banks at central banks will be affected by negative interest rates, which banks dare not transfer to customers, especially retail and SME customers; to offset the impact of negative interest rates on their profits, banks cannot but lend their surplus funds, or seek other investment means, such as bonds and stocks with relatively low credit ratings, increasing high-risk investments. Given both negative interest rates and quantitative easing, it is highly likely that banks invest the funds obtained from quantitative easing into capital markets, thus lifting asset prices. In effect, the Euro Stoxx 50 index rose 6% by the end of January 2016, as compared with the level before the adoption of negative interest rates. But the Japanese stock market tumbled by around 5% in two months.

Third, whether this can facilitate currency devaluation is largely associated with market conditions and other supporting measures. The most obvious effect was achieved in the Eurozone, where the nominal interest rate fell by 18% after the implementation of negative interest rates, with the real effective exchange rate down 8.2% as well. But the ECB has launched quantitative easing since January 2015, cut interest rates three times in September 2014, December 2015 and March 2016 respectively, and maintained such a loose approach, leading to continued market expectations for further rate cuts or expansion of quantitative easing. Moreover, when the ECB adopted negative interest rates in 2014, the U.S. was gradually exiting from quantitative easing and about to normalize interest rates, making the interest rates of the dollar rise and those of the euro fall back at the same time.

The effect in Sweden and Japan was lower than expected. In the 11 months when negative interest rates were adopted in Sweden, the nominal and real effective interest rates of the Swedish krona both increased by around 3%. The effect was the poorest in Japan. Market risk aversion was gaining momentum when the Japanese central bank implemented negative interest rates; the policy led the exchange rate of the yen to devalue from JPY118 to JPY121 against one U.S. dollar, but it only lasted three days. Then, the exchange rate of the yen rebounded notably as a result of mounting concerns about global economic recessions, great volatility in financial markets, lower expectation for the Fed's rate increase, and rising risk aversion in the market, with the Japanese yen appreciating by around 7%, completely offsetting the effect of implementing negative interest rates.

Fourth, the effect of raising inflation expectations was limited. A key target of the ECB implementing negative interest rates was anti-deflation. But the inflation rate in the Eurozone remained at around 0% in the two years after the negative interest rate policy was implemented, with the core inflation rate constantly below 1%, and far from reaching the 2% inflation target. Japan has implemented the negative interest rate policy for a little more than one month only, the effect of which on inflation remains to be seen. But the situation in Japan is similar to that of the Eurozone. The reason for deflation mainly lies in its economic structure, such as an aging population, lukewarm household consumption, and insufficient financing demand of private sectors. These problems cannot be resolved through monetary policy alone; neither can it drive economic growth fundamentally.

The negative interest rate policy cannot be used for long as it is necessary to combine fiscal policy in the future and reinforce international coordination. As an unconventional monetary policy, negative interest rates can only be used temporarily. Otherwise, the cons must be greater than pros. Firstly, it will increase financial risks. Over-lax monetary policy tends to cause bubbles in the asset market and huge distortion in the real economy. Secondly, it will deprive the government of the motivation for structural reform. Then central banks cannot but continuously inject more liquidity into frothy financial markets, until they run out of ammunition.

Therefore, in the long run, interest rate policies should gradually normalize. During this process, the collaboration of fiscal policy is of critical important. It is essential to increase public spending on infrastructure and technological upgrading, among other sectors, strengthen the endogenous growth momentum in economy, and realize the virtuous cycle of "economic growth + interest rate rise". In the meantime, central banks need to reinforce coordination in case divided monetary policies should generate spillover effect on financial markets.

III. Possibility of a Brexit and the Implications

The referendum on Britain's exit from the EU is due to be held on June 23, 2016. If it is passed, Britain will exit the EU after two years, leaving the EU face critical political risks. Despite the limited possibility of the referendum getting passed, fundamental conflicts between the UK and the EU still exist, and the risk of a Brexit will not disappear after the referendum.

III.1 Concessions made by the EU to Britain can lower the risk of a Brexit but fundamental conflicts between the two still exist

The European debt crisis already revealed European integration is confronted with an "up-or-out" situation. Historically, the relationship between the UK and the EU has been quite lukewarm. The ruling Conservative Party is divided over whether to stay or to leave, while the opposition party opts to stay in. The reason why the general public supports a Brexit includes immigration pressure, European debt crisis, sovereign issues and financial burdens. The refugee crisis and terrorist incidents in Europe have also contributed to the public opinion in favor of a Brexit. To get more people to support Britain staying in the EU, British Prime Minister David Cameron tabled a reform proposal to the EU of granting the UK a "special status", including specific requirements on sovereignty, currency, enhancing the competitiveness of the European common market and restricting the benefits for European immigrants.

Whether these requirements can be met or not will have a critical impact on the result of the referendum. ComRes, a prestigious polling company in the UK, conducted a telephone poll of 1,001 British voters in December 2015, which showed that if the British government and the EU could reach agreement on the current reform deal, the proportion of voters in support of "a stay" or "an exit" would be 56%-vs.-35%; if the negotiation failed, the proportion would become 48%-vs.-45%.

After intense negotiations, the UK and the EU reached a reform deal on February 19, 2016, pursuant to which the UK would be given a special status in the above-mentioned four aspects. Although David Cameron did not get all he claimed, the reform pact allowed Britain to gain great autonomy while enjoying the European common market, which has partly lowered the possibility of the vote getting passed in the referendum.

III.2 Britain's exit from the EU will generate an adverse and extensive impact worldwide

A Brexit will cause uncertainties about the foreign and domestic policies of the UK and Europe as a whole. Diplomatically, a Brexit means the UK can no longer wield any influence on the future development direction of the EU from within. The United States expressed explicitly on this issue that it hopes Britain could stay and continue to play a leading role inside the bloc; so it can be inferred that exiting the EU will diminish the influence of Britain in the world arena. Internally, a Brexit might make the issue of Scottish independence resurface, and increase the political instability in the UK again. The majority of the Scottish people want to stay in the EU; if Britain decides to exit, Scotland may hold a second referendum on independence, and choose to join the EU as an independent country.

The EU definitely does not want Britain, a permanent UN member and a major European power to leave it, for that would not only undermine the international influence of the EU itself, but also set a precedent for other EU members dissatisfied with the arrangements of the EU agreement. When Britain started the "stay-or-leave" negotiations, the question other EU members should consider is: whether regulations in favor of a Brexit will encourage other members to exit the EU. A Brexit may also trigger other problems, including: Britain will lose the power to influence EU's rule-making from within, and new EU laws and regulations without the participation of Britain may see their influence decline in international capital markets as a result; Eurozone authorities also need to judge whether to encourage more EUR-denominated financial businesses within the Eurozone; how to select a city among Frankfurt, Paris, Luxembourg and Dublin as the core financial center of the Eurozone.

A Brexit will have negative impact on the China-UK and China-EU relationships. President Xi Jinping's state visit to the UK in 2015 created a new era of exchanges between the two nations, and the British government declared it would become China's best partner in Europe and even in the west. The UK has always had the tradition of supporting free trade, and is one of the few EU countries publicly indicating their recognition of China's market economy status. Should Britain exit from the EU, China would lose a key force inside the EU that facilitates China-EU free trade, which would hence increase the difficulty of bilateral FTA negotiations, and affect the development of China-EU relationship.

III.3 Britain may follow the Swiss model as future, bilateral relationship agreements with the EU are critical

A Brexit is most likely to bring adverse impact on the economy as a whole. The EU is the biggest trading partner of the UK. As of 2014, 45% of British exports went to, and 53% of British imports came from EU members. The EU is even a key source of foreign investment for the UK. Moreover, the UK was the country attracting the most foreign investment in the EU in 2014. Judging by the current trade relations between the EU and other countries, the UK may rebuild its relationship with the EU with reference to the Swiss model if exited. Like Britain, Switzerland has a developed financial industry with EU members being some of their major customers. The agreement between Switzerland and the EU is more applicable to the national conditions of the UK; next, the core of the Swiss model lies in two independent economies – Britain and the EU, negotiating over bilateral political, economic and trade relations on an equal footing, which is the primary demand of the UK for exiting from the EU.

IV. Change Features and Risk Assessment of Emerging Market Credit Cycles

IV.1 Current risk features of emerging markets

In 2015Q4, the risks of emerging markets had four features. First, vulnerability of financial sectors became divided. The number of countries in extreme zones (such as safe and high-risk zones) increased, indicating serious credit expansion, maturity mismatch and rising credit risk in some emerging economies. Second, the distribution of capital market vulnerability trended left-skewed. The number of countries in safe and slightly safe zones was more than those in low- and high-risk zones, showing capital market vulnerability of emerging economies improved as a whole in Q2. Third, the vulnerability level of different countries' public sectors varied a lot. Specifically, Argentina and India were in grave fiscal deficit situations; Ukraine had a high level of public debt; and Brazil faced both of the problems. Fourth, external vulnerability was lowered. Only Ukraine and Bulgaria faced the risks incurred by high foreign debts and withdrawal of international capital.

Overall, credit risk already replaced external risk and became the major issue confronting emerging markets, as compared with 2015Q3. In addition, credit risk of emerging markets was unevenly distributed, showing an obvious trend of polarization. Chile, Argentina, Mexico and Brazil, among others, featured a high credit risk, and hence stood a higher chance of a debt crisis first.

IV.2 Trend characteristics of previous credit cycles and credit features of emerging markets

From the 1970s up to now, the world economy has consecutively gone through four obvious credit cycles.

In the first credit cycle (1970-1979), Latin American countries including Argentina and Mexico implemented an export-oriented development strategy, and borrowed foreign debts on a large scale when capital was scarce at home, with the annual average growth rate of loans running up to 30%. Then as the Fed raised interest rates, the Latin American debt crisis broke out.

In the second credit cycle (1980-1990), after signing the "Plaza Accord", Japan stepped up monetary stimulus to spur economic growth, leading to rapid credit expansion, and bubble in the stock market and real estate market. Thereafter, Japan tightened its monetary policy to prevent inflation; but with asset bubbles bursting, the Japanese economy was thrown into a long-term recession.

During the third credit cycle (1990-1997), Thailand, Malaysia and other emerging economies in Asia launched the financial liberalization reform, with torrents of capital rushing in which led to surging credit; but the reversal of international capital flows afterwards triggered the eruption of a regional financial crisis.

During the fourth credit cycle (2002-2007), the Fed lowered the federal funds rate 13 times in a row, which stoked the development of the home mortgage market; but an overheated real estate market led to rising inflationary pressures. After the Fed revised up interest rates constantly, the "subprime crisis" broke out. This shows, excessive borrowing will build up credit bubbles during a credit cycle. Once the credit cycle reverses, the bursting of credit bubbles will trigger serious economic and financial crises.

Since the 2008 financial crisis, emerging markets, under strong policy stimulus, have embarked on a new round of credit expansion, as their economy recovers and international capital pours in. The leverage ratio of private sectors keeps rising, and credit bubbles begin to surface, with the risk of foreign debts service increasing. Data show, from the end of 2007 till the end of 2015, the debt-to-GDP ratio of private sectors in emerging markets surged from 60.7% to 90%, while that of public sectors rose from 37.3% to 43.3%. In terms of currency structure, also during the period, total foreign debts of financial institutions and non-financial institutions increased from USD1.7 trillion and USD1.3 trillion to USD2.1 trillion and USD3 trillion, respectively. The leverage ratio of non-financial institutions in emerging market was far higher than that of other sectors, and exceeded the level of developed countries, showing large numbers of low-efficiency and high-risk projects obtained financing without prudent assessment, with the risk of default rising. Therefore, this credit cycle in emerging markets is greatly similar to the 1970-1979 cycle in terms of formation path, debt structure and risk concentration area.

IV.3 Probability assessment of a new round of crises in emerging markets

Emerging markets have so far accumulated plenty of credit risk in three aspects: (1) in terms of gross quantity, credit scale has been growing rapidly and constantly since 2008, with that of emerging markets nearing the inflection point and increasingly notably recently; vulnerability of financial and public sectors remains high; (2) in terms of structure, the debts of non-financial institutions in emerging markets have been increasing particularly fast in recent years, even outpacing developed countries, but with lower credit quality and greater default risk; (3) in terms of distribution, there is an obvious trend of polarization as the overall risk of emerging markets is rising. Credit risk is highly concentrated in Argentina, Mexico and Brazil among others, which stand a much higher chance of first seeing the eruption of a debt crisis.

Now the Fed has stepped into a rate increase cycle, triggering the reversal of capital flows. Net capital inflows in emerging markets plummeted from USD508 billion at the end of 2007 to -USD594 billion at the end of 2015. And capital flight led the currencies of emerging markets to devalue substantially in 2015. Although the Fed has slowed down its pace of rate increases, for the credit cycle of emerging markets, the greatest uncertainty lies in when such rate rises will end, not when they began. So preventing credit crises will be a protracted war.

It is impossible for emerging markets to address the USD730 billion debts due in 2016 through refinancing. Even if their central banks pay off internal debts by printing more money, the risk for servicing foreign debts remains high. The Fed is expected to raise interest rates twice in 2016; then the currencies of emerging markets will devalue further. The IMF estimates that the currencies of emerging economies are likely to devalue by 30%-50%, whereas the foreign debts of emerging markets due in 2016, 2017 and 2020 will be record highs, i.e. USD262 billion, USD352 billion and USD500 billion respectively. If the markets develop as the IMF expected, the breakout of a debt crisis in emerging markets will become a highly probable event.