2. International Economic Developments

The pace of global economic activity remained subdued in the first quarter of 2014. This was mainly driven by the tumbling growth in the US, Euro Area and Latin America, especially in Brazil, the weak course of economic activity in Russia, Ukraine and China and the slower-than-expected growth in Japan. Even though countries have performed differently with respect to the speed of economic activity in this period, growth still lost momentum in both advanced and emerging economies. Meanwhile, third-quarter readings on global growth suggest a slight recovery, which is believed to have been stimulated by the US, China and India.

Global inflation rates stayed low as the global economic activity continued to improve weakly. Having decreased in the third quarter amid the sluggish course of global growth, commodity prices placed a downward pressure on inflation. Accordingly, inflation rates have stopped rising further in emerging economies as of the second quarter, while inflation figures in advanced economies have continued to undershoot the targets due to high output gaps. Consequently, growth-bolstering monetary policies in advanced economies remained loose in the third quarter of the year. Meanwhile, the monetary policy implemented by the Fed and the ECB started to differ notably due to the divergence of the growth outlook. More specifically, the Fed continued to reduce asset purchases, while the ECB eased liquidity and also cut policy rates in June and September. In the same period, monetary policies in emerging economies were also eased, albeit slightly. In the upcoming period, it is estimated that monetary policy will remain loose in advanced economies, except for the US. Similarly, emerging economies are expected to implement a loose monetary policy.

Having fluctuated amid the volatile risk appetite, capital flows towards emerging economies continued to recover in the third quarter of the year. In the period ahead, uncertainties regarding the Fed's exit strategy from its accommodative monetary policy and the still-lacking recovery in global economic activity are expected to keep the downside risks to capital inflows brisk in emerging economies. In addition, due to geopolitical developments besides growing perceptions that the Fed may opt for a higher-than-expected policy rate hike, the risk appetite may continue to fluctuate in the upcoming period, and in turn, portfolio inflows may remain volatile for a while.

2.1. Global Growth

The global economic activity continued to slow down in the second quarter (Chart 2.1.1). The economic growth lost pace in the second quarter both in advanced and emerging economies (Chart 2.1.2). The deceleration in global growth was mainly caused by zero growth in the Euro Area. Similarly, Japan and Brazil experienced stagnation in this period, which pulled the global growth rate down. However, the US and China pushed the global growth rate up in the second quarter. It should also be mentioned that growth in emerging economies (excluding China and India) has slowed down to near growth in advanced economies for the first time after the global crisis.

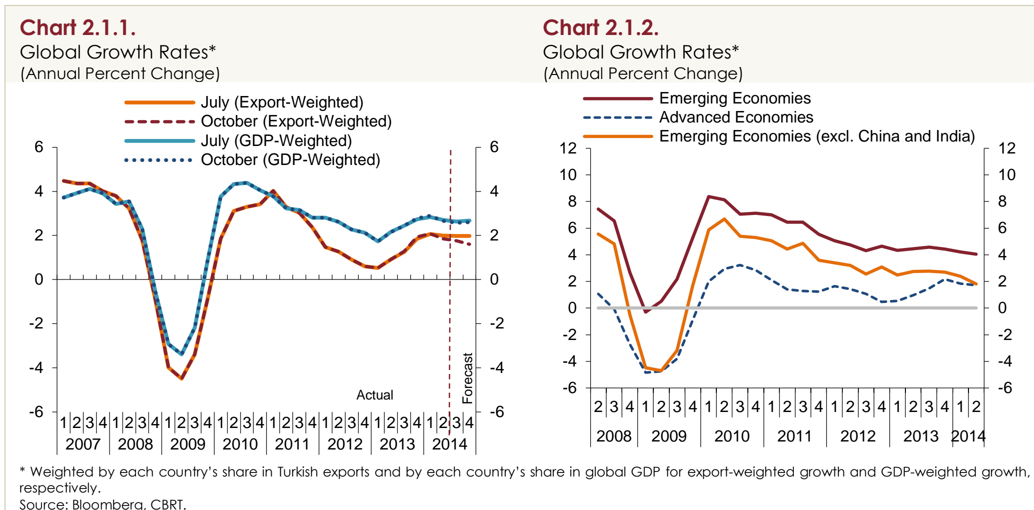


Chart 2.1.1.
Global Growth Rates*
(Annual Percent Change)

Chart 2.1.2.
Global Growth Rates*
(Annual Percent Change)

* Weighted by each country's share in Turkish exports and by each country's share in global GDP for export-weighted growth and GDP-weighted growth, respectively.
Source: Bloomberg, CBRT.

The global PMI data of the third quarter suggest a more positive growth performance compared to the previous quarter (Chart 2.1.3). However, the Euro Area manufacturing industry PMI fell remarkably in this period, indicating that the Euro Area growth, which nearly stalled in the second quarter, might turn negative in the third quarter. Meanwhile, the US manufacturing industry PMI continued to post favorable readings in the third quarter as well (Chart 2.1.4). Moreover, the optimistic outlook in the US labor market was maintained in this period and unemployment rates dropped to 5.9 percent in September, indicating that the US economy will continue to grow in the third quarter of the year. As for the emerging economies, the PMI data suggest the likelihood of a more favorable growth performance in the third quarter compared to the second quarter of the year. This is attributed to the accelerated capital flows towards these economies in May and June, which also continued into the third quarter.

In sum, in the third quarter of the year, the global economy is expected to perform similarly to the first half of the year. Accordingly, the US at the advanced economies side and China and India at the emerging economies side are expected to contribute positively to global growth in this period. On the other hand, the Euro Area and emerging economies in the Eastern Europe and Latin America are estimated to have a downside effect on global growth.

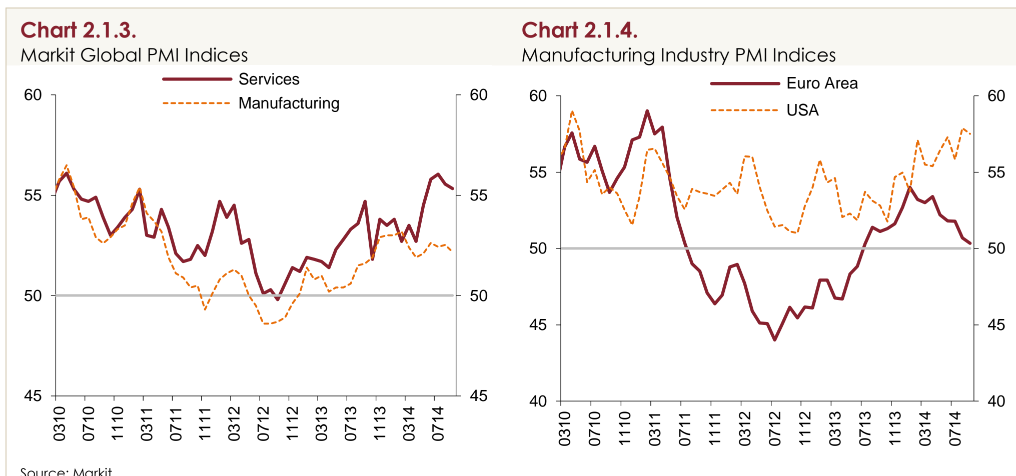


Chart 2.1.3.
Markit Global PMI Indices

Chart 2.1.4.
Manufacturing Industry PMI Indices

Source: Markit.

The October Consensus Forecasts Bulletin suggests that growth forecasts for end-2014 were revised upwards for the US and the UK, but downwards for the Euro Area and Japan. Growth forecasts for emerging economies were revised upwards for India but downwards for Latin American countries, especially for Brazil, in the inter-reporting period (Table 2.1.1). GDP and export-weighted global production indices were revised accordingly, indicating that global economy will continue to grow for the rest of the year but the pace of growth will slightly undershoot the forecasts presented in the previous Report (Chart 2.1.1). Consequently, uncertainties regarding the Fed's exit strategy from its accommodative monetary policy, the magnitude and duration of the slowdown in the Euro Area besides the volatility in capital inflows to emerging economies are estimated to deteriorate global growth in the upcoming period.

Table 2.1.1.
Growth Forecasts for end-2014 and 2015 (Average Annual Percent Change)

	July		October	
	2014	2015	2014	2015
World	2.6	3.2	2.7	3.2
Advanced Economies				
USA	1.6	3.0	2.2	3.1
Euro Area	1.1	1.6	0.8	1.2
Germany	2.0	2.0	1.4	1.5
France	0.7	1.2	0.4	0.8
Italy	0.3	1.1	-0.3	0.5
Spain	1.1	1.7	1.3	1.9
Japan	1.5	1.3	1.1	1.2
UK	3.0	2.6	3.1	2.6
Emerging Economies				
Asia-Pacific	6.0	6.1	6.0	6.1
China	7.3	7.2	7.3	7.1
India	5.4	6.2	5.6	6.3
Latin America	1.7	2.6	1.2	2.2
Brazil	1.1	1.5	0.3	1.0
Eastern Europe	1.5	2.5	1.5	2.2

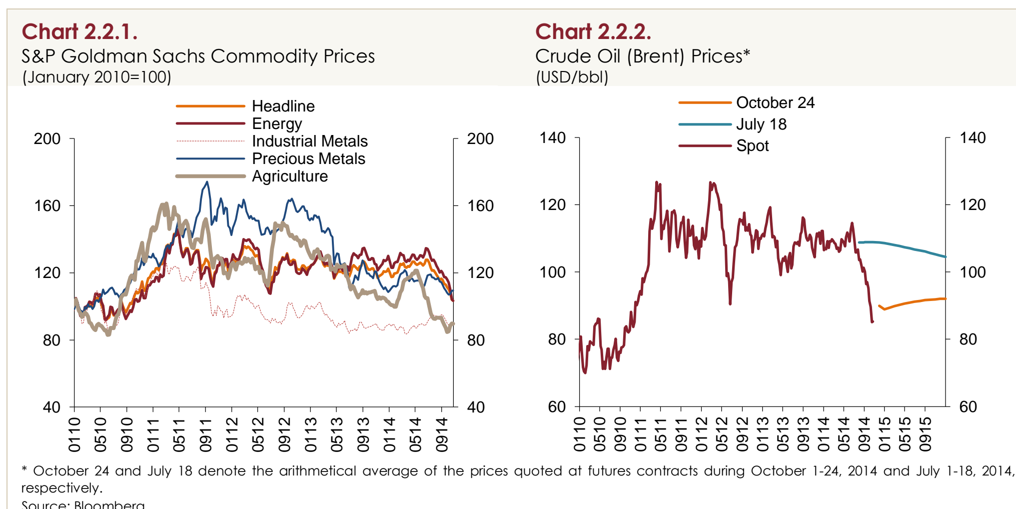
Source: Consensus Forecasts.

2.2. Commodity Prices and Global Inflation

In the third quarter of 2014, the headline commodity price index displayed a quarter-on-quarter decline by 12.8 percent. In this period, all sub-items of the index registered a decline. Agricultural prices hit the 4-year low plunging by 16.4 percent, while energy prices dropped by 13.9 percent. Thus, these two sub-items became the main determinants of the fall in the headline index. Meanwhile, precious metal and industrial metal prices fell by 9.7 and 2.4 percent, respectively (Chart 2.2.1).

Chart 2.2.1.
S&P Goldman Sachs Commodity Prices
(January 2010=100)

Chart 2.2.2.
Crude Oil (Brent) Prices*
(USD/bbl)



* October 24 and July 18 denote the arithmetical average of the prices quoted at futures contracts during October 1-24, 2014 and July 1-18, 2014, respectively.
Source: Bloomberg.

The third quarter saw a notable fall in agricultural prices owing to the upbeat harvest amid favorable weather conditions. Across subcategories, the decline in agricultural prices is estimated to be around 30 percent on an annual basis by the end of September. Oil prices also registered a dramatic fall in the same period due to the high levels of production and stocks coupled with the sluggish global demand. Brent crude oil prices, which were 93.2 USD at the end of the third quarter, are estimated to tumble in the upcoming period compared to the forecasts of the previous Inflation Report (Chart 2.2.2). Nevertheless, the geopolitical unrest in the Middle East is considered to be an upside risk factor on oil prices in the forthcoming period. Meanwhile, industrial metal prices also dropped mainly due to concerns over the Chinese economy.

In the third quarter of the year, falling commodity prices contained inflationary pressures in advanced and emerging economies. Accordingly, advanced economies saw a decline in consumer price inflation with core inflation remaining virtually unchanged in the inter-reporting period. As for emerging economies, both headline and core inflation rates registered a decline (Charts 2.2.3 and 2.2.4).

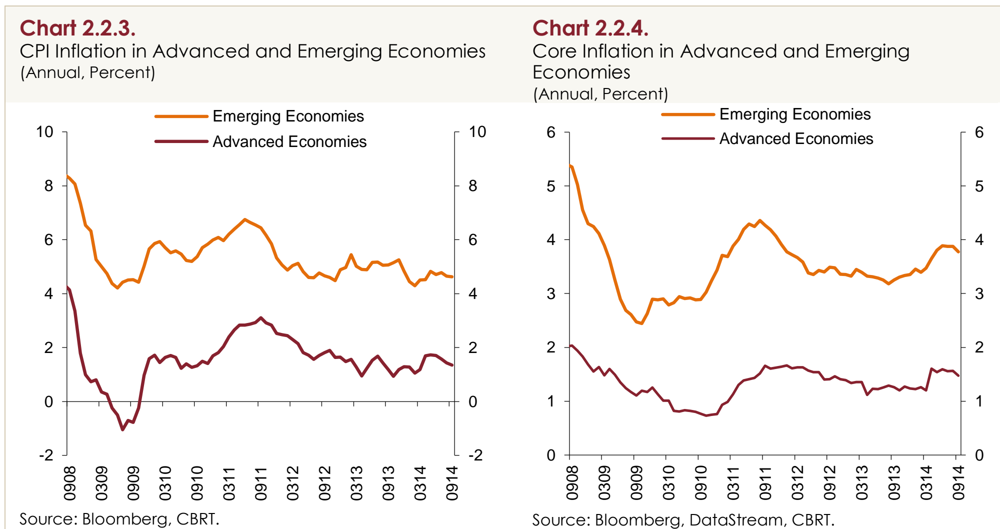


Chart 2.2.3.
CPI Inflation in Advanced and Emerging Economies
(Annual, Percent)

Source: Bloomberg, CBRT.

Chart 2.2.4.
Core Inflation in Advanced and Emerging Economies
(Annual, Percent)

Source: Bloomberg, DataStream, CBRT.

In the upcoming period, end-2014 and 2015 inflation forecasts were revised downwards for the US, the Euro Area and Asia-Pacific Region and upwards for Latin America and Eastern Europe. Concurrently, the end-2014 inflation forecast for Japan was revised slightly upwards (Table 2.2.1). Therefore, the current excess supply in commodity markets is expected to have a downward effect on global inflation. Meanwhile, possible fluctuations in the exchange rate due to financial risks may jeopardize inflation on the cost side in emerging economies and demand conditions may be influential in the global inflation outlook in the upcoming period.

Table 2.2.1.
Inflation Forecasts for end-2014 and 2015 (Average Annual Percent Change)

	July		October	
	2014	2015	2014	2015
World	3.2	3.1	3.2	3.1
Advanced Economies				
USA	2.0	2.1	1.8	1.8
Euro Area	0.7	1.2	0.5	1.0
Germany	1.1	1.8	1.0	1.6
France	0.7	1.1	0.6	1.0
Italy	0.5	0.9	0.2	0.6
Spain	0.2	0.8	0.0	0.7
Greece	-1.0	-0.1	-1.0	0.0
UK	1.7	2.0	1.7	1.9
Japan	2.7	1.8	2.8	1.8
Emerging Economies				
Asia-Pacific	3.3	3.5	3.1	3.3
China	2.4	2.9	2.3	2.7
India	8.0	6.9	7.7	6.8
Latin America	11.4	10.4	12.0	11.7
Brazil*	6.4	6.0	6.4	6.3
Eastern Europe	5.4	4.9	6.0	5.3

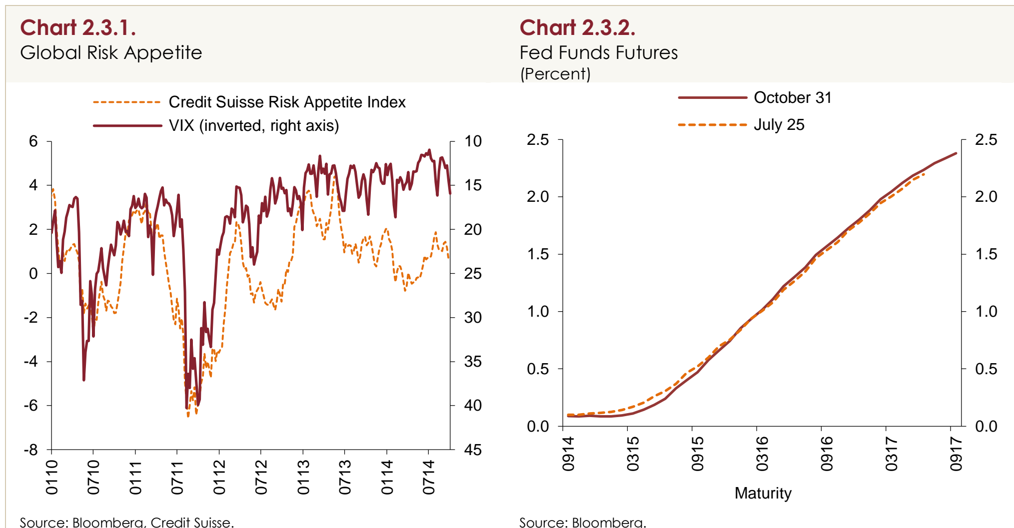
* December to December.
Source: Consensus Forecasts.

2.3. Financial Conditions, Risk Indicators and Capital Flows

In the third quarter of the year, the slowdown in global economic activity besides geopolitical developments and rising expectations regarding the magnitude of the Fed's impending policy rate hike led to fluctuations in the global risk appetite (Chart 2.3.1). On the other hand, the Fed funds futures contracts suggest that the expected timing of the first policy rate hike will remain unchanged but the expected size of the hike increased slightly in the long run (Chart 2.3.2). However, this increase did not affect the US Treasury bond yields (Chart 2.4.3).

Chart 2.3.1.
Global Risk Appetite

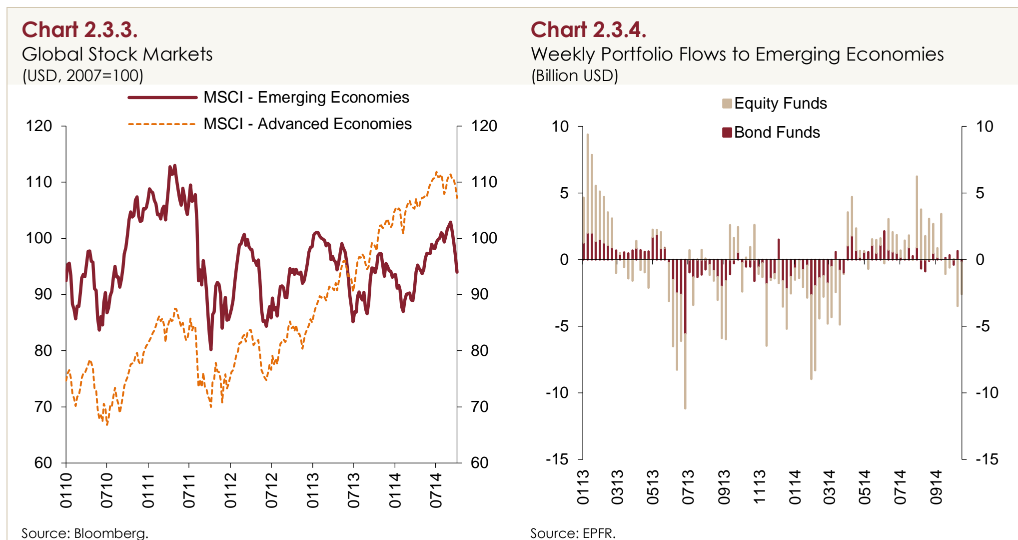
Chart 2.3.2.
Fed Funds Futures
(Percent)



Source: Bloomberg, Credit Suisse.

Source: Bloomberg.

After the overvaluation in the second quarter, stock markets started to tumble in the third quarter, particularly in advanced economies, amid the volatile global risk appetite (Chart 2.3.3). On the other hand, the deceleration in the global economic activity and the divergence of growth across countries led to markedly higher yields on bond funds, especially in Latin America and Eastern Europe (Chart 5.1.1).



Capital flows towards emerging economies continued to improve in the third quarter. Capital inflows followed a volatile course in this period due to volatile global risk appetite (Chart 2.3.4). By sub-items, equity fund inflows saw notable quarter-on-quarter increases, while bond fund inflows remained quite restricted.

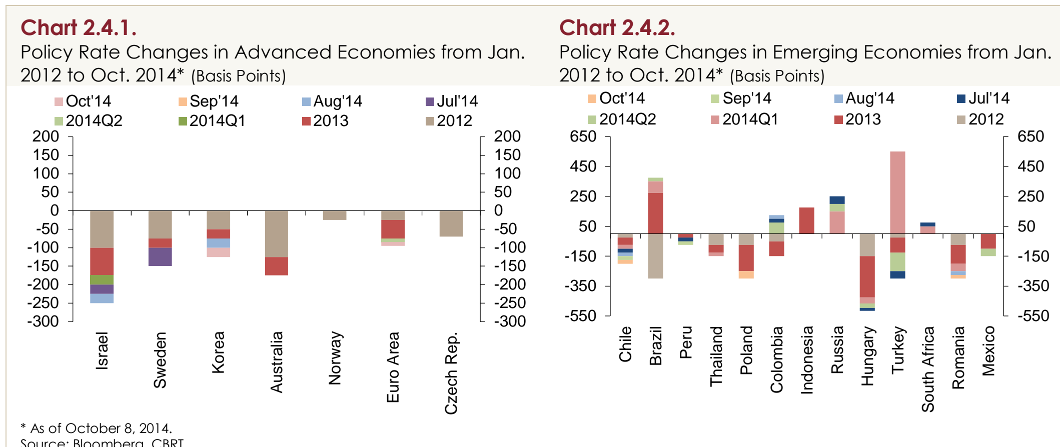
Besides the uncertainty regarding the Fed's exit strategy from monetary easing, the steady growth in emerging economies and the pending recovery in the global growth outlook build downside risks on capital flows towards emerging economies in the upcoming period. Moreover, the policy divergence between the Fed and the ECB as well as the geopolitical developments keep these downside risks brisk. Accordingly, the fluctuations in the global risk appetite and the volatility in portfolio flows are expected to persist for a while.

2.4. Global Monetary Policy Developments

The third quarter of the year was marked by an apparent policy divergence between the Fed and the ECB as the US and the Euro Area departed notably with respect to their growth outlook. This divergence started with the ECB's policy rate cut in June, and was manifested more strongly by the additional rate reduction of 10 percentage points in September due to further downward revision of growth projections in the Euro Area. As for other major central banks, Sveriges Riksbank, Bank of Israel and Bank of Korea also reduced policy rates in the July-October period (Chart 2.4.1). On the emerging economies front, in contrast to policy rate hikes delivered in politically-chaotic Russia and inflation-ridden Colombia, monetary policy remained loose in general with Central Bank of Chile, Central Reserve Bank of Peru, National Bank of Romania and National Bank of Poland recently opting for policy rate cuts (Chart 2.4.2).

Chart 2.4.1.
Policy Rate Changes in Advanced Economies from Jan. 2012 to Oct. 2014* (Basis Points)

Chart 2.4.2.
Policy Rate Changes in Emerging Economies from Jan. 2012 to Oct. 2014* (Basis Points)

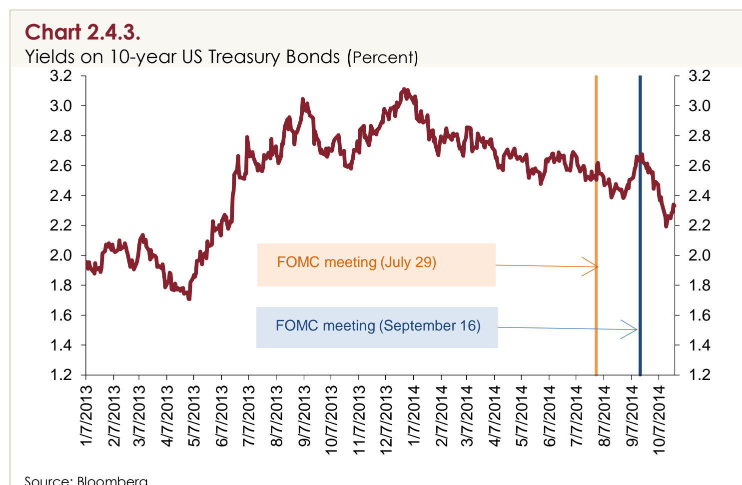


* As of October 8, 2014.
Source: Bloomberg, CBRT.

The Fed continued to reduce asset purchases as expected and signaled for an ending of the program in its October FOMC meeting. Following the plunge in unemployment rates, the Fed changed its employment-data-dependent forward guidance and started to use the expression that "the current target range for the federal funds rate would be maintained for a considerable time after the asset purchase program ends". Prior to the September meeting, long-term interest rates saw an uptick due to the expectation that the Fed may abandon this phrase and hint for an earlier policy rate hike. However, the Fed maintained this phrase in its September meeting and interest rates declined again (Chart 2.4.3). The size of the fall in the long-term interest rates climbed to 45 basis points also due to easing signals by other major central banks, yet slightly increased as of mid-October.

In its September meeting, the ECB reiterated that the inflation rate notably undershot the medium-term target and cut the benchmark policy rate by 10 basis points to 0.05 percent. The interest rate on the deposit facility, which was already negative, was also reduced by the same amount. Following this decision, the short end of the yield curve for almost up to 2-year maturities took negative values. Moreover, the ECB launched a new program for buying asset-backed securities and covered bonds to start in the last quarter of 2014 and continue for at least two years. It was emphasized in the press release that this program would facilitate the credit provision to the Euro Area economy and also constitute an important signal that the ECB would remarkably deviate from other major central banks in the upcoming period with respect to monetary policy.

Chart 2.4.3.
Yields on 10-year US Treasury Bonds (Percent)



Source: Bloomberg.

The ECB's inflation and growth projections demonstrate that the current monetary policy strategy will be maintained for quite a long time. The data announced in September suggest that the ECB estimates that the Euro Area consumer price inflation will be 0.6 percent in 2014, 1.1 percent in 2015 and 1.4 percent in 2016. Accordingly, inflation is envisaged to undershoot the medium-term target even at end-2016. Growth projections for the respective years were announced as 0.9, 1.6 and 1.9 percent, respectively. Meanwhile, other large economies have not experienced a noticeable increase in inflation that may necessitate monetary tightening. The Bank of England, which is the most likely bank to deliver a rate hike besides the Fed, emphasizes in its announcements that possible policy rate increases would be limited and kept below past averages.

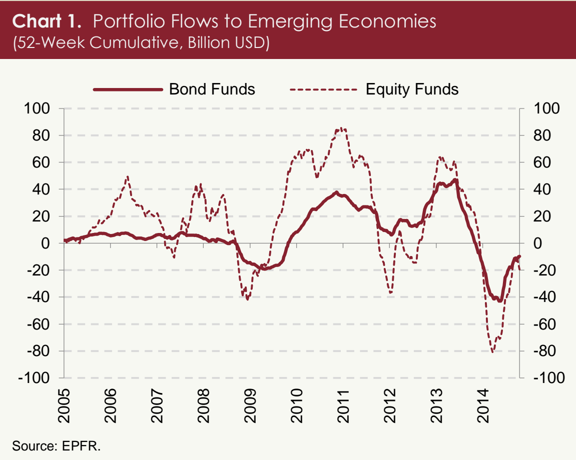
On the other hand, monetary policies of emerging economies were mostly eased in the previous quarter. Except for a few central banks, which have recently increased policy rates on account of higher inflation, most central banks have either reduced policy rates or kept them constant. In the upcoming period, a tightening is likely due to fluctuations regarding international capital flows besides the uncertainties about the Fed's policy. However, the average policy rate has currently been on the decrease in emerging economies similar to advanced economies.

In sum, the uncertainty regarding the timing and the magnitude of the Fed's possible policy rate hike remains to be the leading factor setting the course of international economic conditions and global monetary policy. The exchange and interest rate developments as well as the direction of the international capital flows at the time of the Fed's first policy rate hike will be influential on the monetary policies of emerging economies.

Box 2.1 Determinants of Bond Flows to Emerging Markets: How Do They Change Over Time?

Capital flow volatility observed after the global financial crisis re-confirmed the fact that, in order to ensure financial and macroeconomic stability in emerging economies, policies should be designed to provide effectiveness not only during times of surge in capital inflows, but also during periods of capital reversals. The design of such policies necessitates a good understanding of the determinants of capital flows to emerging economies as well as an exploration of how their significance changes over time. This box, which is based on Erduman and Kaya (2014), investigates the time-varying nature of the determinants of bond flows with a special focus on the global financial crisis period. To this end, a time-varying regression model is estimated using Bayesian estimation methods, where the posterior distribution is approximated by the Gibbs sampling algorithm.

Chart 1. Portfolio Flows to Emerging Economies
(52-Week Cumulative, Billion USD)



Source: EPFR.

The post-crisis rise in the interest rate differential between advanced and emerging economies besides the elevated uncertainties caused international investors to venture for shorter maturities and higher returns. Moreover, bond yields in emerging markets were also favored by the loss of confidence in advanced economies' assets, the presence of room for more policy rate reductions in emerging markets and the expectations for further monetary easing in advanced economies. Accordingly, bond fund inflows to emerging economies rose remarkably in this period (Chart 1). In order to find out whether the determinants of bond flows to emerging markets have witnessed a structural change, the following time-varying parameter equation was estimated for bond flows:

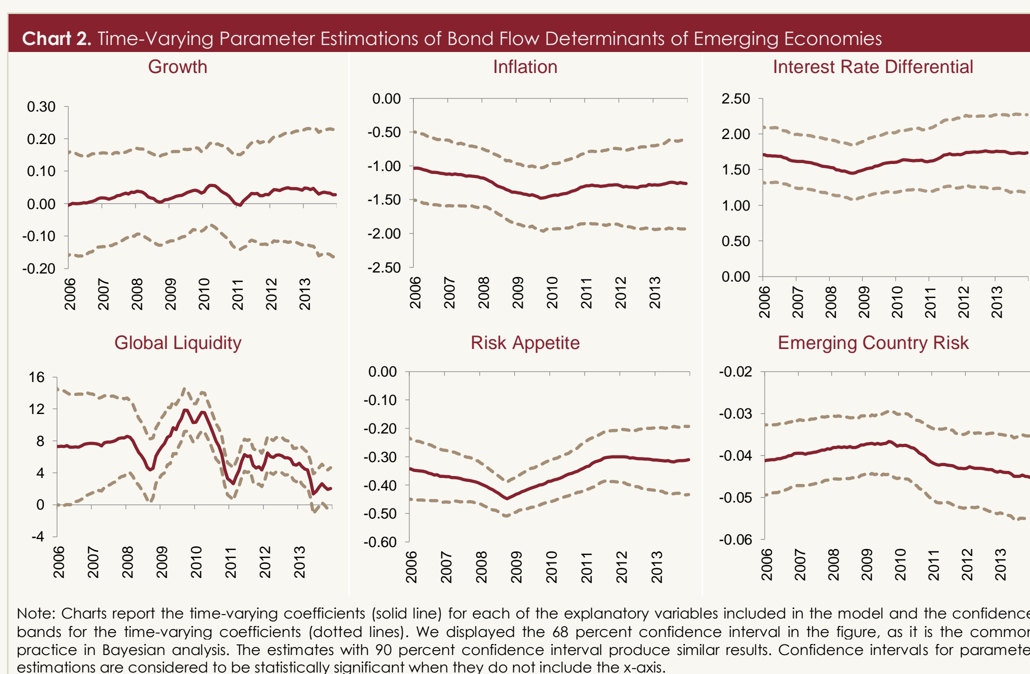
$$BF_t = \alpha_t Ph_t + \beta_t Pl_t + \epsilon_t$$

Where BF_t is bond flows at time t. The determinants of capital flows are categorized as push and pull factors, which are represented by Ph_t and Pl_t, respectively. In the literature, global liquidity and risk appetite are considered to be the leading push factors for capital flows, while pull factors are country-specific variables such as growth rate, interest rate and the inflation rate.

As the quantitative easing policies in advanced economies have been one of the main sources of excess global liquidity in the post-crisis period, global liquidity is measured as the sum of the total assets of the Fed's and the ECB's balance sheets in USD.[1] As for the other push factors, we use the change in the VIX to track the global risk appetite, and EMBI to capture the risk perception about emerging markets. On the other hand, pull factors are defined as the annual growth rate of industrial production, the CPI-based inflation rate and the policy rate differential between emerging markets and the US. The dataset covers the monthly data from 2005 to end-2013.

Time-varying parameter estimations in Chart 2 indicate that the relative significance of bond flow determinants has varied over time both before and after the global financial crisis. Moreover, important times such as the Euro Area debt crisis or the Fed's tapering signal can be clearly detected by the turning points in time-varying coefficients.

Chart 2. Time-Varying Parameter Estimations of Bond Flow Determinants of Emerging Economies



Note: Charts report the time-varying coefficients (solid line) for each of the explanatory variables included in the model and the confidence bands for the time-varying coefficients (dotted lines). We displayed the 68 percent confidence interval in the figure, as it is the common practice in Bayesian analysis. The estimates with 90 percent confidence interval produce similar results. Confidence intervals for parameter estimations are considered to be statistically significant when they do not include the x-axis.

Our findings suggest that the interest rate differential between advanced and emerging economies has been the most effective pull factor on bond market flows in the analyzed period. Despite waning in the global crisis period, the effect of the interest rate differential on bond flows proves to be stable and strong in the post-crisis period. On the other hand, after the crisis, when the major policy rates neared zero, emerging economies attracted short-term capital flows due to their relatively higher policy rates. This posed a challenge on the conduct of monetary policy by using a single instrument, which impelled many emerging economies to resort to macroprudential measures. Meanwhile, inflation rate is another important pull factor, whereas the growth rate does not seem to play a significant role in bond flows. Emerging economies established

[1] Although the BoE and the BoJ implemented similar quantitative easing policies, their assets are not included in the global liquidity definition due to their relatively limited effects in international terms.

international financial linkages during the 1990s on account of their growing reliability given their robust growth prospects, which also enabled them to gain easier access to international markets. Thus, one can argue that the impact of growth on capital flows diminished during the analyzed period due to stronger globalization and financial integration.

As for the push factors, global liquidity is the most important determinant of bond flows, which seems to have the highest effect when quantitative easing policies were first announced. On the other hand, the effect of global liquidity weakens with the occurrence of the Euro Area crisis and eventually fades away with the tapering talk.[2] Global risk appetite and the emerging market risk perception are also found to have relatively minor, yet stable significance on bond flows.

Against this background, one can conclude that the way in which the policy divergence among advanced economies will affect global liquidity in the period ahead, will determine capital flows to emerging markets as a push factor. Meanwhile, monetary policies are expected to diverge also at a global scale due to divergence of growth and inflation prospects. Hence, the interest rate differential is estimated to remain as a significant pull factor for capital flows in the upcoming period as well. In this setting, emerging economies are likely to maintain their macroprudential measures as an effective tool against possible volatilities to be transmitted via both the global liquidity and the interest rate differential channels.

REFERENCES

Erduman, Y. and N. Kaya, 2014, Determinants of Bond Flows to Emerging Markets: How Do They Change Over Time?, CBT Research Notes in Economics No.14/28.

[2] Balance sheets became an efficient component of monetary policy after 2008, when quantitative easing policies were launched. Thus, measured by balance sheets, the effect of global liquidity on capital flows was more vague before 2008.