

## 2. International Economic Developments

Global economic growth and the volume of trade rebounded in 2017, while advanced economies and emerging markets experienced simultaneous growth. Bolstered by the upbeat outlook in consumer and real sector confidence indices as well as propitious global financing conditions, global economic activity is expected to remain on a favorable track in the period ahead as well.

Despite the brisk global growth outlook and the upward trend in commodity prices driven mainly by energy prices, global inflation rates remain low. Therefore, normalization in monetary policies of advanced economies follows a predictable path. Major central banks, particularly the Fed and the ECB, are expected to follow a mild pace towards normalization in the upcoming period as well. Therefore, the global monetary policies had limited effects on financial markets, and risk appetite remained strong. This spurred further portfolio flows to emerging economies throughout 2017 despite hiccups amid geopolitical tensions. Portfolio flows to emerging economies are expected to be underpinned by global financial conditions, the strong risk appetite and favorable global growth prospects in 2018 as well.

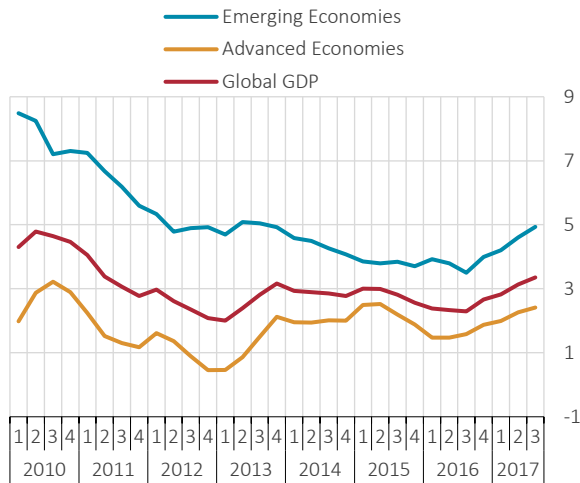
Despite the current favorable outlook in global economy and financial conditions, downside risks are also present in the period ahead. In particular, the planned US tax reform feeds into positive expectations for the US stock market, yet the possibility of a widening budget deficit may lead to a faster-than-expected tightening in monetary policy and a higher-than-expected rise in the US Treasury bill rates. In addition, the optimism in financial markets may reverse in the case of a faster-than-anticipated normalization by other major central banks. Moreover, the high level of private sector indebtedness in some emerging economies, particularly China, is considered to be another factor to amplify financial fragility.

Meanwhile, blurred global economic policies, increased protectionism and heightening geopolitical risks put a cap on the global growth potential and pose further downside risks to the future economic outlook. Against this background, it should be noted that these fragilities may only be alleviated by a combination of the use of effective and coordinated macroeconomic policies, alongside the implementation of structural reforms and concerted trade policies.

### 2.1 Global Growth

Having displayed a favorable outlook in the first half of 2017, global economic growth remained brisk in the third quarter, gaining further momentum on a quarterly basis due both to advanced economies and emerging economies (Chart 2.1.1). Advanced economies, primarily the Euro area and Japan, performed well in this period, while the UK economy continued to slow down. On the emerging economies front, Latin America and Eastern Europe exhibited accelerated growth. In Latin America, Brazil experienced a more pronounced recovery, while Turkey registered a strong jump, becoming a leading factor to push growth up in Eastern Europe. In this period, China posted a deceleration, while other Asian countries, particularly India, recorded an increased rate of growth, causing the third-quarter growth to remain unchanged from the previous quarter in Asia (Chart 2.1.2).

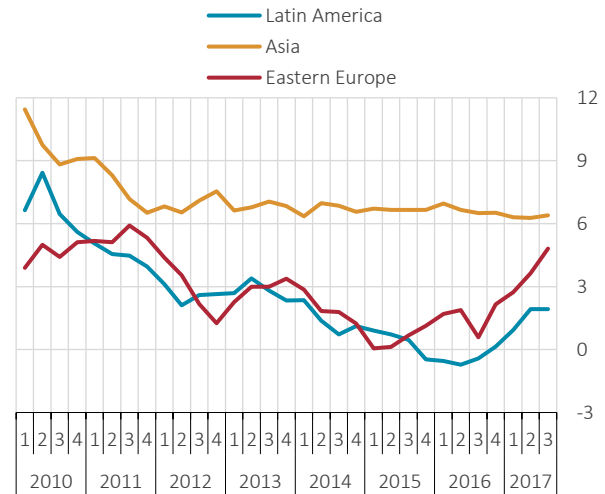
Chart 2.1.1: Global Growth Rates\* (Annual % Change)



Source: Bloomberg, CBRT.

\* Weighted by each country's share in global GDP.

Chart 2.1.2: Regional Growth Rates\* (Annual % Change)

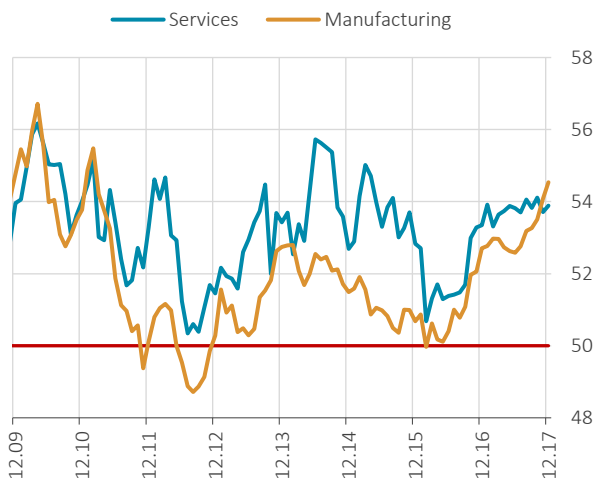


Source: Bloomberg, CBRT.

\* Weighted by each country's share in regional GDP.

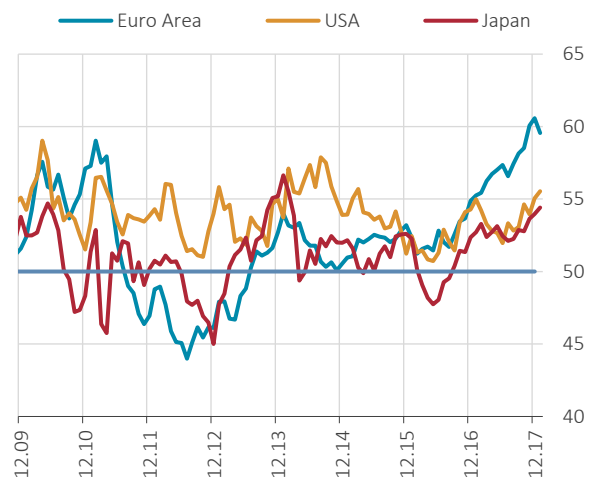
PMI data for the last quarter of 2017 points to a quarter-on-quarter improvement in the economic outlook. In particular, the global manufacturing PMI continued to surge in this quarter amid the notable increase in the manufacturing industry PMI in advanced economies, mainly the Euro area (Chart 2.1.3). The PMI indicators in advanced economies continued to be favorable in January 2018 as well (Chart 2.1.4). Moreover, the annual growth rate of industrial production in the US, the Euro area and Japan jumped in October and November, while the labor market outlook remained positive. Accordingly, advanced economies are estimated to post higher quarter-on-quarter growth in the last quarter.

Chart 2.1.3: Global PMI



Source: IHS Markit.

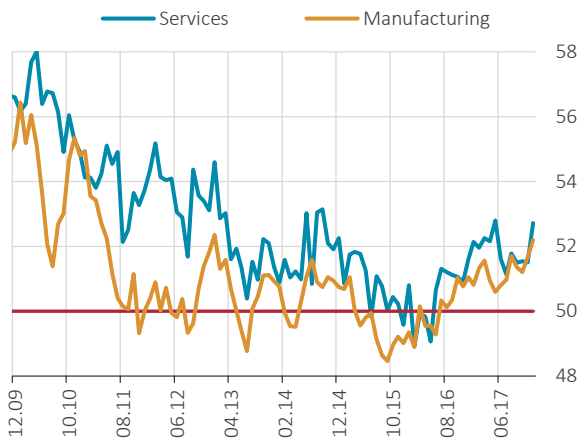
Chart 2.1.4: Manufacturing PMI in Advanced Economies



Source: IHS Markit.

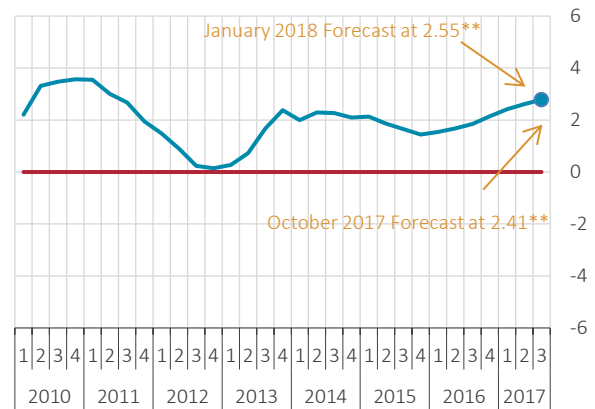
PMI data for emerging economies increased further in the last quarter of 2017 both in manufacturing industry and services sub-indices (Chart 2.1.5). In fact, in October and November, the annual growth rate in industrial production across emerging economies increased remarkably. Given the ongoing strong capital inflows to these countries in this period, it is possible to assert that the economic activity remained strong in emerging economies in the last quarter of 2017.

Chart 2.1.5: Emerging Markets PMI



Source: IHS Markit.

Chart 2.1.6: Export-Weighted Global Production Index\* (Annual Average % Change)



Source: Bloomberg, CBRT.

\* Weighted by each country's share in Turkey's gold exports.

\*\* Average growth forecast for 2017.

In sum, it is estimated that global economic growth was spurred by both advanced economies and emerging economies in the last quarter of 2017, and that global growth has registered a quarter-on-quarter acceleration. This can be confirmed by the upward revision in the global growth forecast for end-2017, which is obtained from January Consensus Forecasts bulletins. In fact, growth forecasts were revised upwards for all country groups (Table 2.1.1). Accordingly, the annual global growth rate measured by the export-weighted global production index, which was revised by January growth forecasts, increased remarkably compared to the previous reporting period (Chart 2.1.6). This indicates that the external demand outlook has been more favorable for Turkey in 2017 compared to the previous year. Meanwhile, in the inter-reporting period, the end-2018 growth forecasts of January Consensus Forecasts bulletins were revised upwards for advanced economies (Table 2.1.1). Thus, Turkey is expected to display a favorable foreign trade outlook in 2018 as well.

Table 2.1.1: Growth Forecasts for end-2017 and end-2018 (Annual Average % Change)

|                           | October |      | January |      |
|---------------------------|---------|------|---------|------|
|                           | 2017    | 2018 | 2017    | 2018 |
| Global                    | 3.1     | 3.1  | 3.2     | 3.3  |
| <b>Advanced Economies</b> |         |      |         |      |
| USA                       | 2.2     | 2.4  | 2.3     | 2.7  |
| Euro Area                 | 2.2     | 1.8  | 2.3     | 2.2  |
| Germany                   | 2.0     | 1.9  | 2.2     | 2.3  |
| France                    | 1.7     | 1.7  | 1.8     | 1.9  |
| Italy                     | 1.4     | 1.2  | 1.5     | 1.4  |
| Spain                     | 3.1     | 2.6  | 3.1     | 2.5  |
| Japan                     | 1.6     | 1.2  | 1.8     | 1.4  |
| UK                        | 1.6     | 1.4  | 1.7     | 1.4  |
| <b>Emerging Economies</b> |         |      |         |      |
| Asia-Pacific              | 5.8     | 5.7  | 5.9     | 5.8  |
| China                     | 6.8     | 6.4  | 6.8     | 6.5  |
| India                     | 6.8     | 7.5  | 6.6     | 7.4  |
| Latin America             | 1.7     | 2.6  | 1.8     | 2.6  |
| Brazil                    | 0.8     | 2.4  | 1.0     | 2.6  |
| Eastern Europe            | 3.3     | 2.9  | 3.7     | 3.1  |
| Russia                    | 1.7     | 1.8  | 1.7     | 1.9  |

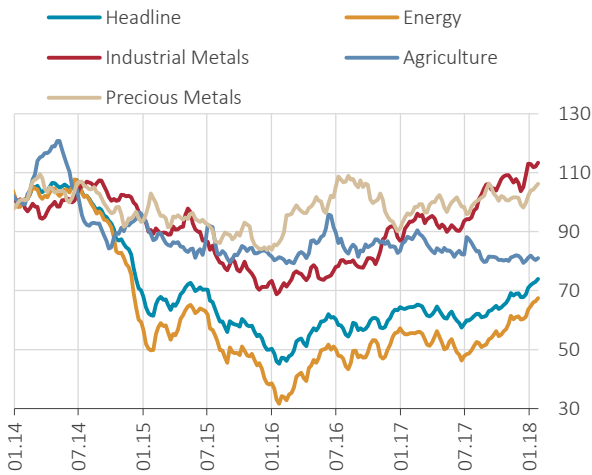
Source: Consensus Forecasts.

## 2.2 Commodity Prices and Global Inflation

In the last quarter of 2017, the headline commodity index went up by 9 percent on a quarterly basis due to rising energy and industrial metal prices. In this period, energy and industrial metal prices rose by 14.1 and 6.8 percent, respectively, whereas precious metal and agricultural prices fell by 0.4 and 2.7 percent, respectively (Chart 2.2.1).

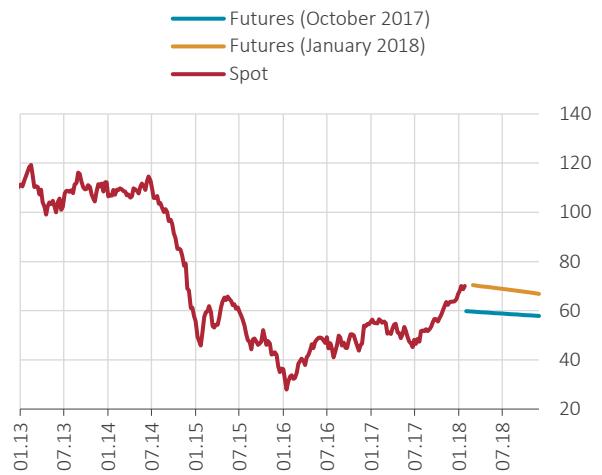
This period was marked by an upside movement in oil prices due both to demand and supply-side developments. Alongside the favorable growth performance in the global economy, dramatically cold weather in North America had a demand-driven upside effect on oil prices. On the production front, in addition to the OPEC's decision to cut supplies, the persisting geopolitical risks emanating from the Middle East keep the concerns over oil supply high and put upward pressure on oil prices. Due particularly to the political turmoil in Iran, Brent crude oil prices hit 69 USD in the second week of January. As signaled by the Brent crude oil futures contracts, crude oil prices are expected to be trading around 67 USD at end-2018 (Chart 2.2.2).

**Chart 2.2.1: S&P Goldman Sachs Commodity Index (January 2014=100)**



Source: Bloomberg.

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

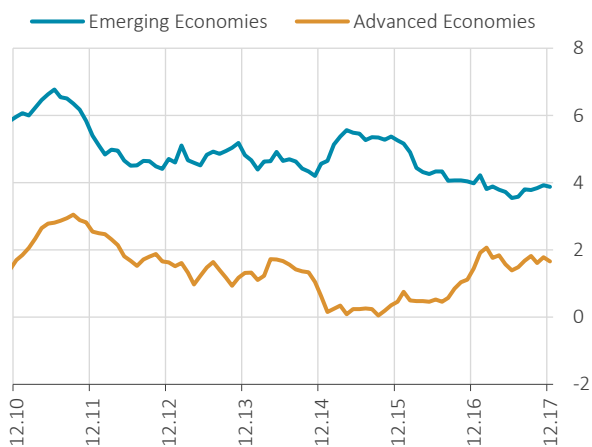


Source: Bloomberg.

\* Futures (October 2017) and Futures (January 2018) denote the arithmetic average of the prices quoted at futures contracts during 1-27 October 2017 and 1-26 January 2018, respectively.

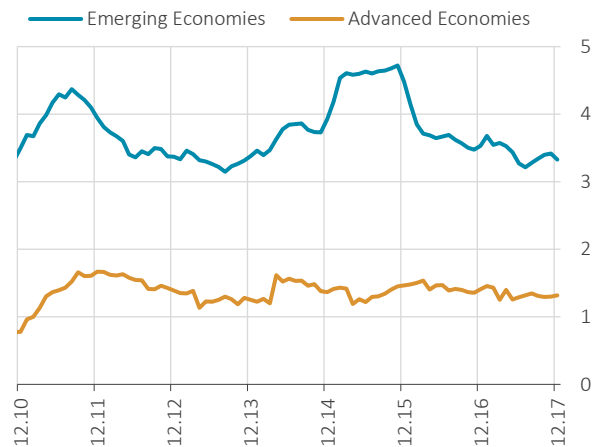
The headline inflation rate has followed almost a flat course in advanced economies and increased slightly in emerging economies since the previous Inflation Report (Chart 2.2.3). Core inflation rate did not post a noticeable change in advanced economies but inched down in emerging economies (Chart 2.2.4). Inflation forecasts for 2018 saw an overall upward revision for both advanced and emerging economies in the inter-reporting period (Table 2.2.1).

**Chart 2.2.3: CPI Inflation in Advanced and Emerging Economies (Annual, %)**



Source: Bloomberg, CBRT.

**Chart 2.2.4: Core Inflation in Advanced and Emerging Economies (Annual, %)**



Source: Bloomberg, Datastream, CBRT.

In the US economy, the low course of unemployment rates notwithstanding, nominal wage growth does not pose inflationary pressures. This is backed by survey and market-based expectations that anchored around the 2-percent target, hinting at a low and stable inflation outlook. Accommodative monetary policy steps of the ECB and the declining idle capacity amid higher growth accompanied by accelerated wage increases are likely to settle the Euro area inflation on a mild upward trend in the medium term. In Japan, inflation expectations track developments with a lag, which will cause inflation to fail to near the 2-percent target in the short term. On the other hand, the depreciation of the pound sterling caused by the opaque future of UK-EU relations drove import prices up, leading to a higher-than-targeted inflation in the UK. Nevertheless, medium-term inflation expectations hovered around the target. If import prices

register a decline in the near future, UK inflation is expected to converge with but stay above the 2-percent target.

Major factors to pose upside risks to global inflation over the upcoming period are possible depreciations in emerging market currencies due to faster-than-expected policy normalization by the Fed and the ECB and possible hikes in commodity prices, particularly oil, amid stronger economic activity and geopolitical tensions.

**Table 2.2.1: Inflation Forecasts for end-2017 and end-2018**  
(Annual Average % Change)

|                                 | October | January |
|---------------------------------|---------|---------|
| <b>Advanced Economies</b>       |         |         |
| USA                             | 2.0     | 2.1     |
| Euro Area                       | 1.3     | 1.4     |
| Germany                         | 1.6     | 1.7     |
| France                          | 1.1     | 1.3     |
| Italy                           | 1.2     | 1.1     |
| Spain                           | 1.3     | 1.5     |
| Greece*                         | 1.0     | 0.9     |
| UK                              | 2.6     | 2.6     |
| Japan                           | 0.7     | 0.9     |
| <b>Emerging Economies</b>       |         |         |
| Asia-Pacific                    | 2.1     | 2.2     |
| China                           | 2.1     | 2.2     |
| India**                         | 4.6     | 4.7     |
| Latin America                   | 18.4    | 51.0    |
| Latin America (excl. Venezuela) | -       | 5.7     |
| Brazil*                         | 4.0     | 4.1     |
| Eastern Europe                  | 4.8     | 5.1     |
| Russia*                         | 4.1     | 4.1     |

Source: Consensus Forecasts.

\* Annual % change.

\*\* Based on fiscal year.

## 2.3 Global Monetary Policy

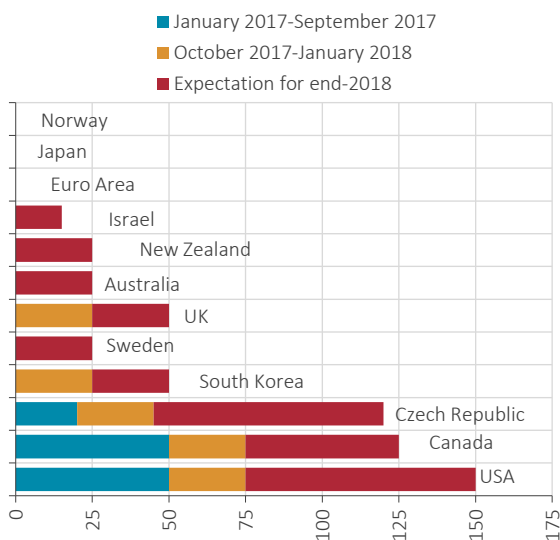
The Fed, which is the major driver of the global monetary policy, completed 2017 with three rate hikes as projected by the FOMC members (Chart 2.3.1). As the rate hikes also proved consistent with expectations, the market response is currently moderate. At the September FOMC meeting, the Fed stated its determination for policy normalization amid the stabilized economic recovery. Concerns over a stronger-than-expected tightening in the Fed’s monetary policy in September and October 2017 led to a weakening in the global risk appetite and a slight decline in portfolio flows to emerging economies. However, waning concerns over the Fed’s monetary policy following the December FOMC meeting led to higher global risk appetite, and portfolio inflows to emerging economies bounced back in December. The Fed’s balance sheet reduction program was implemented as planned, which led to no negative spillovers on financial markets, as expected.

The Fed and ECB’ meetings in December produced decisions to maintain the current policy stance. The expected upward effect of tax reform on growth and inflation and the December rate hike, which was signaled in the September FOMC meeting, were already priced by the market participants, therefore yielding no remarkable effects on financial markets. In addition, the median FOMC forecasts, which predict three rate hikes in 2018 and two rate hikes in 2019, were kept intact. The policy rate path implied by futures prices appears also consistent with the Fed’s forecasts. Accordingly, the probability of four or more rate hikes in 2018 is above 10 percent, which implies that a Fed tightening is already priced by markets.

The ECB did not opt for any change in its monetary policy at the December meeting and reiterated that policy rates will not be hiked for a long time even if the bond purchasing program is terminated in the future, and if deemed necessary, bond purchases will be maintained to preserve the bond stock. Meanwhile, the upward revision in growth forecasts, especially the update from 1.8 percent to 2.2 percent in 2018 forecast, led to a slight appreciation in the euro. Yet, standing at 1.7 percent, inflation forecasts are below the target even by the end of 2020, which supports prospects for a continued accommodative monetary policy in the Euro area in the upcoming period.

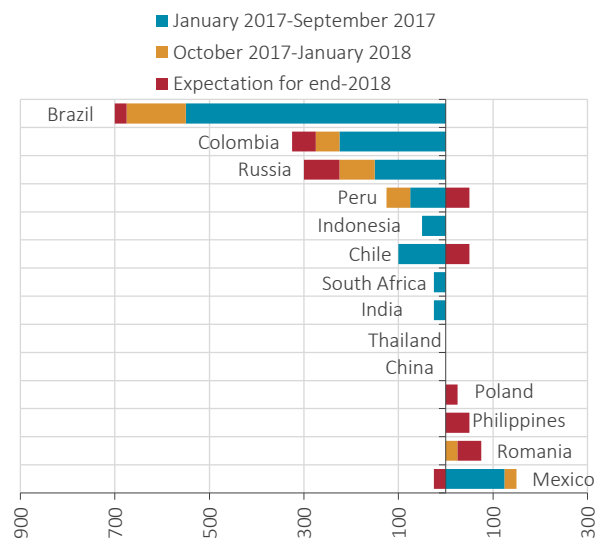
Against mounting inflation and weakening growth, the Bank of England raised policy rates by 25 basis points in November, which is expected to be accompanied by an additional tightening in the next 2-3 years. Maintaining an accommodative monetary policy, the Bank of Japan has not hinted at any tightening until recently. Despite the lack of an official announcement, the Bank of Japan cut down on long-term bond purchases in early January, which is regarded as the first signs of tightening. Monetary policies of other advanced economies remained tight as expected, and Bank of Korea, Bank of Canada and the Czech National Bank opted for rate hikes from October to January (Chart 2.3.1). In sum, policy rate expectations and policy messages in advanced economies currently signal a cautious and mild normalization in monetary policy.

**Chart 2.3.1: Policy Rate Changes and Year-end Policy Rate Expectations in Advanced Economies\* (Basis Point)**



Source: Bloomberg.  
\* As of 25 January 2018.

**Chart 2.3.2: Policy Rate Changes and Year-end Policy Rate Expectations in Emerging Economies\* (Basis Point)**



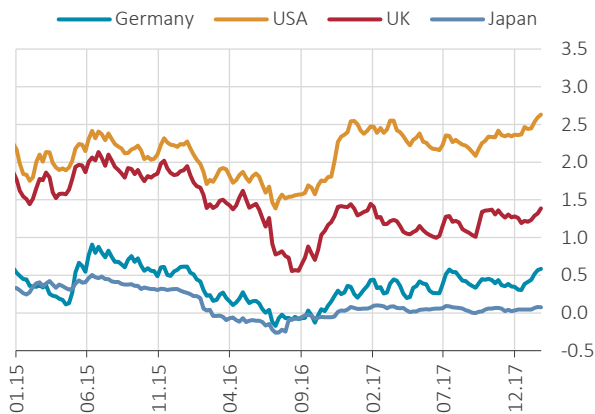
Source: Bloomberg.  
\* As of 25 January 2018.

Meanwhile, emerging economies have diverged further in terms of monetary policy. In the last quarter of 2017, the central banks of Brazil, Russia and Colombia continued with monetary easing, yet expected policy rate changes in 2018 imply that the easing cycle is about to be over in the respective countries (Chart 2.3.2).

## 2.4 Global Risk Indicators and Portfolio Flows

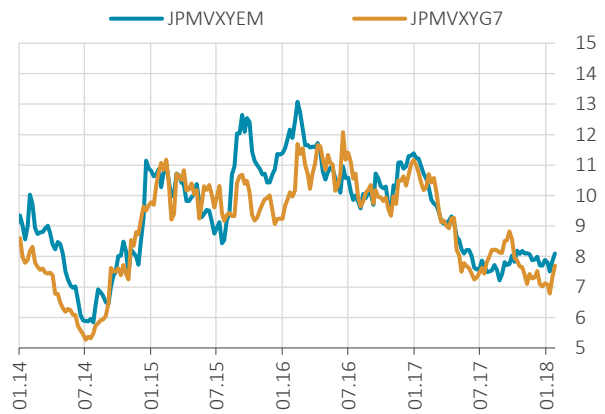
In the last quarter of 2017, the robust growth and labor market data for the US economy fed into the prospects for a Fed rate hike in December 2017 and 2018, which led to further mild increases in bond yields. Likewise, with the economic confidence index hitting a 20-year high, the optimistic macroeconomic outlook in the Euro area caused higher yields in German bonds (Chart 2.4.1). In the second week of January 2018, the Bank of Japan unexpectedly announced a cutback in long-term bond purchases, which gave an additional push to soaring global bond yields.

Chart 2.4.1: 10-Year Bond Yields (%)



Source: Bloomberg.

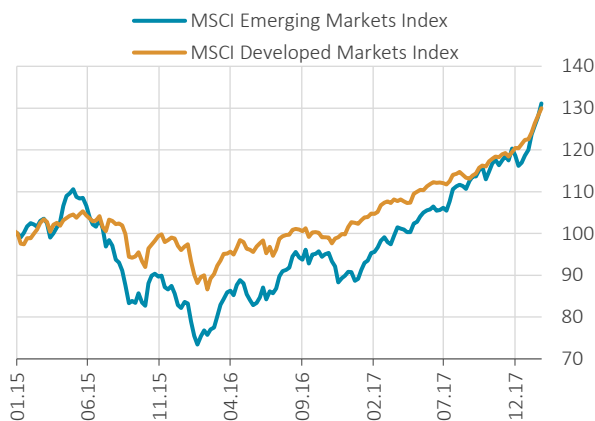
Chart 2.4.2: JP Morgan FX Volatility Indices (Weekly)



Source: Bloomberg.

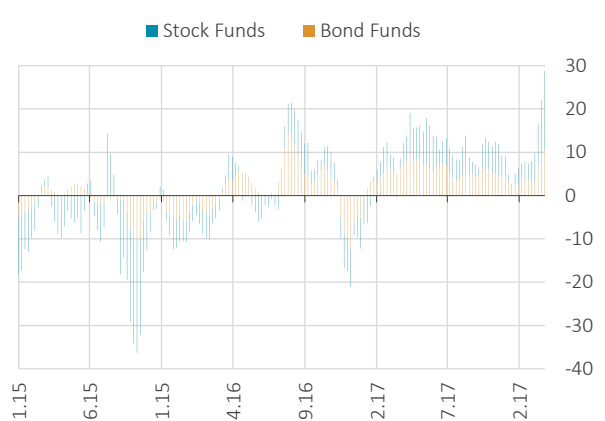
Ongoing optimistic global financial conditions caused low risk sentiment, which led to alleviated exchange rate volatility in both advanced and emerging economies (Chart 2.4.2). The planned corporate tax reduction in the US fueled firms' expectations for higher profits, pushing the US stocks to all-time highs (Box 2.1), while the strong risk appetite spurred further flows to the stock markets of other advanced and emerging economies (Chart 2.4.3).

Chart 2.4.3: MSCI Indices (January 2015=100)



Source: Bloomberg.

Chart 2.4.4: Portfolio Flows to Emerging Economies (4-Week Cumulative, Billion USD)



Source: EPFR.

In the last quarter of 2017, emerging economies attracted further portfolio flows on the back of the voracious global risk appetite and the bright growth outlook. Thus, emerging economies attracted strong and steady portfolio flows throughout 2017 (Chart 2.4.4). Both the favorable growth prospects and the course of the global risk appetite hint at continued portfolio flows in 2018 as well.



**Table 2.4.1: Composition and Regional Distribution of Fund Flows to Emerging Economies (Quarterly, Billion USD)**

|      |    | Total | Fund Composition |             | Regional Distribution |        |               |                        |
|------|----|-------|------------------|-------------|-----------------------|--------|---------------|------------------------|
|      |    |       | Bond Funds       | Stock Funds | Asia                  | Europe | Latin America | Middle East and Africa |
| 2015 | Q1 | -8.6  | 1.9              | -10.5       | -8.1                  | 2.2    | -2.4          | -0.2                   |
|      | Q2 | -8.0  | 1.4              | -9.4        | -6.9                  | 0.4    | -2.0          | 0.4                    |
|      | Q3 | -45.3 | -16.5            | -28.8       | -23.8                 | -6.5   | -10.8         | -4.1                   |
|      | Q4 | -22.3 | -12.7            | -9.6        | -11.1                 | -3.0   | -6.4          | -1.9                   |
| 2016 | Q1 | -4.5  | -1.2             | -1.6        | -2.5                  | -1.4   | -0.3          | -0.3                   |
|      | Q2 | -1.4  | 7.3              | -8.7        | -4.5                  | 0.7    | 1.9           | 0.6                    |
|      | Q3 | 42.4  | 26.1             | 16.3        | 17.9                  | 7.5    | 12.4          | 4.7                    |
|      | Q4 | -17.4 | -9.3             | -8.1        | -12.6                 | -0.8   | -2.7          | -1.3                   |
| 2017 | Q1 | 32.7  | 19.9             | 12.8        | 8.2                   | 7.7    | 12.4          | 4.3                    |
|      | Q2 | 52.6  | 24.4             | 28.2        | 25.2                  | 7.6    | 14.5          | 5.4                    |
|      | Q3 | 37.1  | 17.3             | 19.8        | 19.4                  | 4.9    | 9.2           | 3.5                    |
|      | Q4 | 29.5  | 11.8             | 17.6        | 14.8                  | 3.7    | 8.3           | 2.7                    |

Source: EPFR.

On a regional basis, all regions experienced portfolio inflows in the last quarter (Table 2.4.1). Having been concentrated in Asia since the second quarter, portfolio inflows continued to be destined to Asia in the last quarter as well. India attracted further sizeable flows to both the bond and stock markets. China, on the other hand, witnessed some deceleration in portfolio inflows, with outflows from the bond market and slower inflows to the stock market. Portfolio inflows in Asia were mostly destined to stock market, while those in Latin American countries were attracted to bonds.

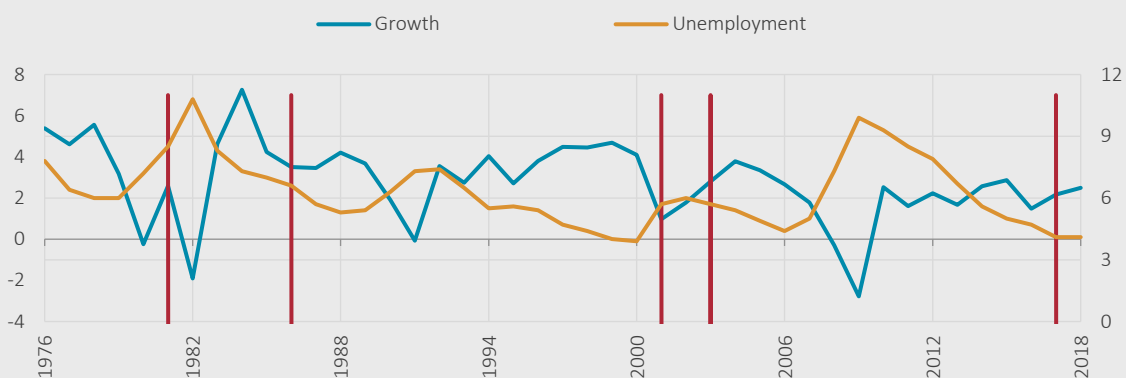
## Box 2.1

### Possible Effects of the US Tax Reform

This box discusses the US tax reform, which is soon to take effect, with a special focus on the underlying reasons and possible impacts, particularly on economic growth.

Except for the tax act enacted in 1981, US tax cuts over the last forty years have not been as stimulating as expected in terms of growth and employment (Chart 1). The common feature of past tax cuts is the implementation of these measures in periods of sluggish economic growth, mounting unemployment and relatively low public debt stock. In contrast, the new tax reform will take effect in a period of robust growth, which pulled unemployment rates down to pre-crisis levels, and higher level of public debt stock.

Chart 1: Economic Growth, Unemployment and Tax Reductions in the US\* (%)



Source: US Bureau of Economic Analysis, US Bureau of Labor Statistics.

\* Red lines denote the past tax cuts.

#### Reasons for Tax Cut

The US is one of the economies with the highest corporate tax rate at a global scale. As illustrated in Table 1, the US exercises a corporate tax rate of almost 39 percent, hitting the top within G20 countries.

After a year of negotiations on the new legislation proposal, the US tax bill was approved by the US Senate on 20 December 2017. The tax reform reduces the corporate tax rate to 20 percent, which is believed to expand investments and hence boost economic growth and employment by attracting capital flows that previously fled abroad due to high tax rates. Although tax cuts will expand the budget deficit in the short term, it will stimulate economic growth and raise the income level, which will feed into higher tax revenues and an improved budget balance in the medium and long term (Feldstein, 2017).

**Table 1: Corporate Tax Rates\* (%)**

|                         |      |              |      |
|-------------------------|------|--------------|------|
| USA                     | 39.1 | Mexico       | 30.0 |
| Japan                   | 37.0 | Canada       | 26.1 |
| Argentina               | 35.0 | China        | 25.0 |
| South Africa            | 34.6 | Indonesia    | 25.0 |
| France                  | 34.4 | South Korea  | 24.2 |
| Brazil                  | 34.0 | UK           | 24.0 |
| India                   | 32.5 | Russia       | 20.0 |
| Italy                   | 31.4 | Saudi Arabia | 20.0 |
| Germany                 | 30.2 | Turkey       | 20.0 |
| Australia               | 30.0 |              |      |
| G20 Average             |      |              | 29.1 |
| G20 Average (excl. USA) |      |              | 28.5 |
| OECD Average            |      |              | 24.8 |

Source: US Congressional Budget Office, March 2017.

\* As of 2012.

The tax reform reduces the income tax rates as well. The new bill introduces four brackets and offers deductions in the lowest three brackets, while the income tax rate for the highest bracket is kept intact at 39.6 percent. Therefore, the new tax legislation aims to stimulate domestic demand by alleviating the tax burden on low-income and middle-income households and also provides a more equitable taxation scheme.

### The Potential Effects of Tax Cut on Economic Growth

Economic theory studies the growth effects of a tax cut from the supply side. In other words, the theory asserts that what is primarily crucial regarding economic growth is the stimulating effect of a tax cut on the potential GDP in the long term, rather than its effect on the aggregate demand in the short term. However, this is conditional upon the following:

- i) After a tax cut, the economic agents will have higher income and profits, which therefore makes it more costly to not work or produce. This higher opportunity cost will urge households and firms to work more, save more and invest more through what can simply be called the “substitution effect”.
- ii) On the other hand, upon a tax cut, economic agents may also be tempted to work less, save less and invest less as they already receive higher income with their current level of activity. Hence, this effect, which is called “the income effect”, needs to be trivial or negligible.
- iii) Tax cuts should not weigh on the budget deficit and public debt. Both theoretical and applied studies suggest that budget deficits stemming from tax cuts have adverse effects on economic growth in the long run if financed by borrowing (Gale and Orszag, 2014; Auerbach and Gale, 2017).

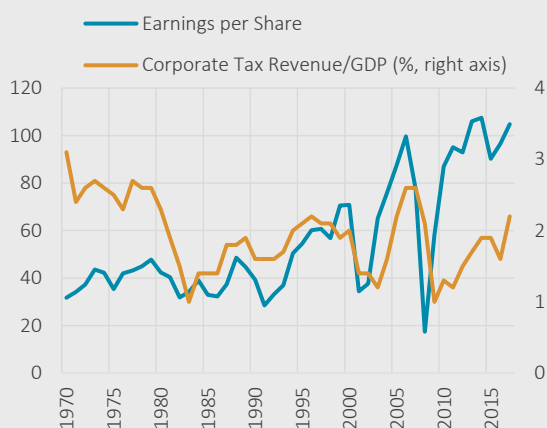
If the effect of tax cut on the economy is in the form of efficiency gains, this will induce higher growth in the long run. If, on the other hand, the tax cut has an effect only on savings, this will result in a one-time expansion in the potential GDP and will not have a permanent effect on growth rates in the long run, but place the economy on a higher growth path. Alternatively, these two effects may occur simultaneously. The tax cut may lead to a loss in budget revenues, which, however, may be balanced by lowering public expenditures. In addition, this may even have a positive impact on economic growth if these public expenditures are inefficient and lead

to waste of resources. On the other hand, if expenditures on significant public investments on physical and human capital accumulation such as infrastructure, education and health are reduced, economic growth will be adversely affected in the long run.

Against this background, two factors are to be noted. If production is below potential due to insufficient demand, economic agents will increase their spending after tax cuts, and this will induce growth in the short run. However, it is crucial to make a distinction between this short-term demand-side effect and the above-mentioned long-term supply-side effects of the tax cut. In fact, the realization of the favorable supply-side effects, i.e. the convergence of the economy to the long-term growth path, may only happen in the very long run (Barro and Sala-i-Martin, 2004).

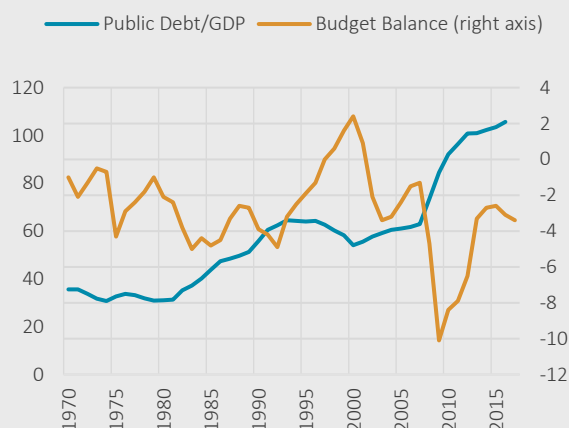
The new US tax bill also led to some controversial debates (DeLong, 2017), which were centered mainly on two subjects. First, after-tax profits of firms are currently hovering at all-time highs in the US economy (Chart 2). Despite the high level of profits, the growth rate of fixed-capital investments is still low in the US, and this is attributed to the insufficiency of demand rather than a deficit in savings. Second, the US budget deficit has risen recently, and the debt stock to GDP ratio hit historic highs by exceeding 100 percent (Chart 3). Thus, even if the tax cut stimulates domestic demand and gives a push to economic growth in the short term, this is likely to worsen the budget balance in the medium and long term (Mankiw, 2017). In that case, real interest rates may rise, and this may dampen investments.

**Chart 2: Corporate Tax Revenues and Firms' Profits in the US**



Source: Internal Revenue Service, <http://www.econ.yale.edu/~shiller/data.htm>.

**Chart 3: Budget Balance and Public Debt Stock in the US (%)**



Source: Federal Reserve Bank of St. Louis.

In sum, in the light of past experiences and current circumstances, alongside the expected positive effects, the tax reform also bears some vagueness and risks. Furthermore, the new act may also create a bubble in the US stock market via expectations of higher profits.

**References**

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