# 2. International Economic Developments

The upturn in global economic activity, which started in the second half of 2016, became more pronounced in the first quarter of 2017, due particularly to advanced economies. In addition to the upbeat consumer and real sector confidence indices, still conducive global financing conditions and stabilized commodity prices are expected to spur the ongoing favorable course of the global economic activity in the period ahead. Survey-based data indicate that the medium-term forecasts for global growth have recently been revised upwards.

Despite the positive outlook for global growth, inflation rates are presently low, causing expectations to be maintained that the monetary policy normalization in advanced economies would be moderate. In fact, as the Fed continued its normalization by keeping up with its plan and pace announced at end-2016, long-term bond yields of advanced economies stabilized at a flat plateau in the second quarter of 2017. In this period, due to the more favorable outlook in global economic activity, the elevated risk appetite and lower volatility in financial markets accelerated portfolio flows to emerging economies.

The currently promising global economic prospects notwithstanding, risks for the period ahead are on the downside. Accordingly, monetary policy practices of advanced economies have recently been at the forefront. Should the size and pace of the normalization processes implemented by the Fed and announced by other major central banks go beyond expectations, the high risk appetite-low volatility cycle in financial markets may reverse. This may cause volatile asset prices and portfolio flows to emerging economies.

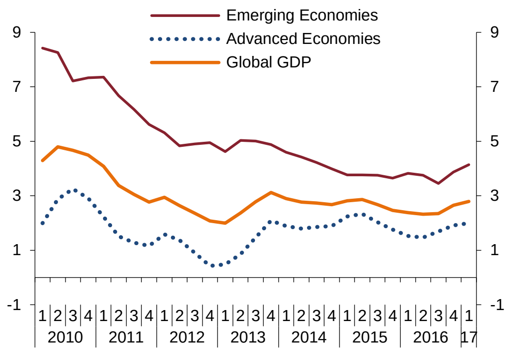
Global economic policies remain vague. The ambiguities surrounding the UK's exit from the EU and global economic policies such as foreign trade protectionism that is on the agenda of many countries, particularly the US, are significant factors resulting in high uncertainty about global economic policies.

Country-specific fragilities may also generate spillovers on a regional and global scale. Reviving concerns over the banking sector in the Euro area and high levels of private sector indebtedness in some emerging economies, particularly China, should be noted as factors to aggravate risks to financial markets. Against this background, it should be underlined that macroeconomic policies should be used efficiently and cooperatively with each other, and should be supported by structural reforms and expedient trade policies to sustain the positive trend in global growth and mitigate fragilities.

## 2.1. Global Growth

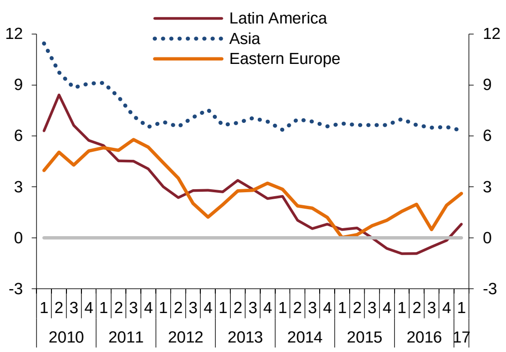
Global economic activity, which has performed well since the second half of 2016, remained upbeat in the first quarter of 2017 due to both advanced and emerging economies and global economic growth accelerated compared to the previous quarter (Chart 2.1.1). The annual growth rate increased in the US, the Euro area and Canada on a quarterly basis, remained unchanged in the UK, but receded remarkably in Japan in the first quarter of 2017. On the emerging economies front, growth rates turned positive in Latin America, gained momentum in Eastern Europe, and recorded a relatively limited fall in Asia compared to the previous quarter (Chart 2.1.2).

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




* Weighted by each country's share in global GDP.
Source: Bloomberg, CBRT.

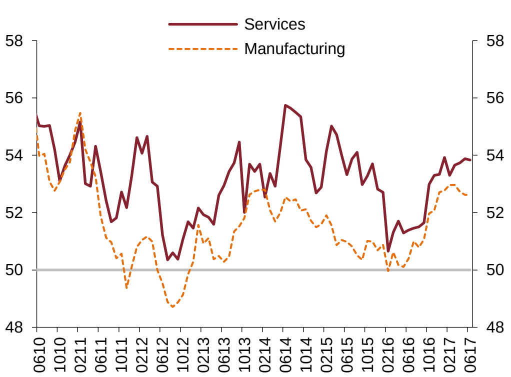
**Chart 2.1.2.**
Regional Growth Rates*
(Annual Percent Change)




* Weighted by each country's share in regional GDP.
Source: Bloomberg, CBRT.

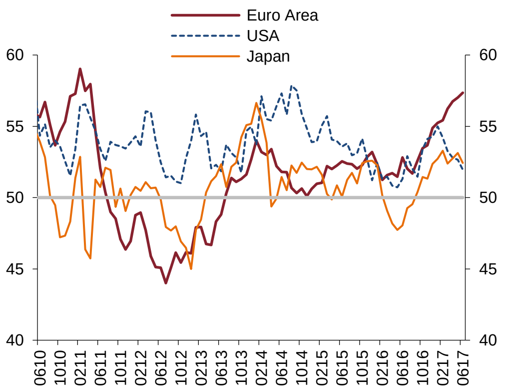
Global PMI data regarding the second quarter suggest a better performance for the services sector, while the outlook for the manufacturing industry seems worse compared to the previous quarter (Chart 2.1.3). However, the Euro area manufacturing industry PMI continued to surge in this period. Accordingly, the Euro area is expected to enjoy further growth in the second quarter, which may outpace the first-quarter figures. The US manufacturing industry PMI displays a notably negative outlook in the second quarter compared to the first quarter. However, not only did the annual growth rate of industrial production gain momentum in April and May, but also the unemployment rate receded to 4.4 percent in June, which indicates that the US economy is likely to register a better growth rate in the second quarter. The manufacturing industry PMI for the Japanese economy stood close to the first-quarter readings in the second quarter. Thus, in this period, Japan is likely to register a similar pace of growth to that of the first quarter (Chart 2.1.4).

**Chart 2.1.3.**
Global PMI




Source: Markit.

**Chart 2.1.4.**
Manufacturing Industry PMI in Advanced Economies

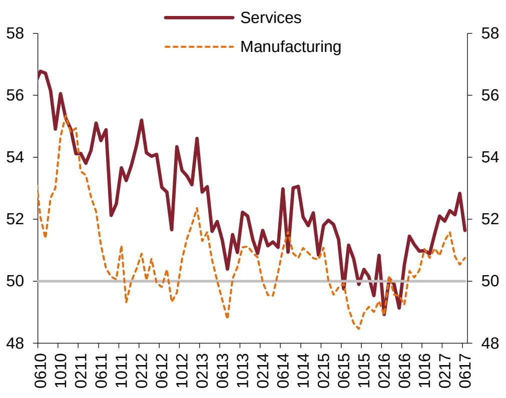



Source: Markit.

In the second quarter of the year, services PMI in emerging economies remained virtually unchanged from the previous quarter, while the manufacturing industry PMI saw decline due to the fall in the manufacturing industry PMI readings of China and Russia (Chart 2.1.5). Due both to the deterioration in the PMI and the slowdown in the annual growth rate of fixed capital investments, the Chinese economic growth is likely to decelerate further in the second quarter, despite support from the favorable external trade volume. The rise in the manufacturing industry PMI in Latin American countries in this period indicates continued economic recovery in the second quarter.

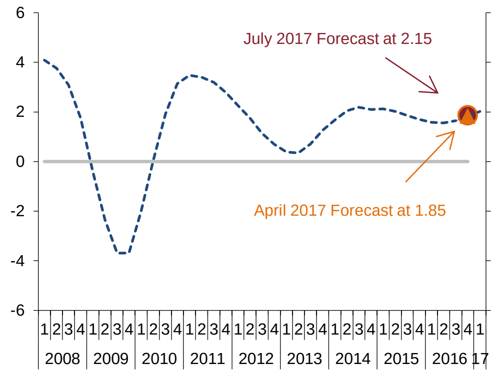
In short, global economic activity, driven particularly by advanced economies, is expected to remain robust in the second quarter of the year, and the global growth rate is likely to exceed the previous quarter's readings. July Consensus Forecasts Bulletins also confirm the expectations that global economy will grow further in the second quarter due to advanced economies, and the growth rate will outpace the first-quarter figures.

**Chart 2.1.5.**
Emerging Markets PMI




Source: Markit.

**Chart 2.1.6.**
Export-Weighted Global Growth Index*
(Annual Percent Change)




* Average growth forecast for 2017.
Source: Bloomberg, CBRT.

According to July Consensus Forecasts Bulletins, on the advanced economies front, the end-2017 global growth forecasts were revised upwards for Japan and the Euro area, downwards for the UK, and remained unchanged for the US (Table 2.1.1). As for the emerging economies, these forecasts were revised upwards for Asia-Pacific and Eastern Europe compared to the previous Inflation Report. Accordingly, the export-weighted global growth revised by July growth forecasts posted an increase from the April Inflation Report (Chart 2.1.6). Hence, the external demand outlook for Turkey is likely to be brighter in 2017 than 2016 (Box 2.1).

**Table 2.1.1.**
Growth Forecasts for end-2017 and end-2018
(Average Annual Percent Change)

| | April | | July | |
|---|---|---|---|---|
| | 2017 | 2018 | 2017 | 2018 |
| Global | 2.9 | 3.0 | 3.0 | 3.0 |
| *Advanced Economies* | | | | |
| USA | 2.2 | 2.4 | 2.2 | 2.3 |
| Euro Area | 1.7 | 1.5 | 1.9 | 1.7 |
| Germany | 1.5 | 1.6 | 1.7 | 1.7 |
| France | 1.3 | 1.4 | 1.5 | 1.6 |
| Italy | 0.9 | 0.9 | 1.2 | 1.0 |
| Spain | 2.6 | 2.2 | 3.0 | 2.5 |
| Japan | 1.3 | 1.0 | 1.4 | 1.1 |
| UK | 1.7 | 1.3 | 1.6 | 1.4 |
| *Emerging Economies* | | | | |
| Asia-Pacific | 5.7 | 5.5 | 5.8 | 5.6 |
| China | 6.5 | 6.2 | 6.6 | 6.3 |
| India | 7.3 | 7.6 | 7.3 | 7.6 |
| Latin America | 1.6 | 2.6 | 1.6 | 2.4 |
| Brazil | 0.6 | 2.5 | 0.4 | 2.1 |
| Eastern Europe | 2.4 | 2.6 | 2.8 | 2.7 |
| Russia | 1.2 | 1.7 | 1.4 | 1.7 |

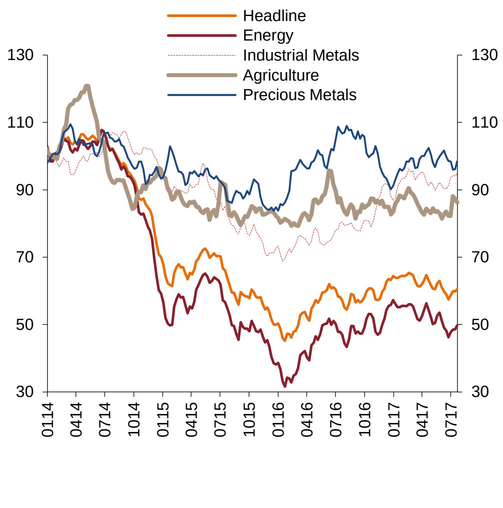
Source: Consensus Forecasts.

## 2.2. Commodity Prices and Global Inflation

Following an uptrend in the first quarter of 2017, the headline commodity index fell by 4 percent on average in the second quarter of the year owing to the price decline in crude oil and petroleum products. Energy prices tumbled by 6 percent, and prices in agriculture and industrial metals fell by 4.7 and 1.9 percent, respectively. On the other hand, precious metals saw a price hike of 3.6 percent in this period (Chart 2.2.1).

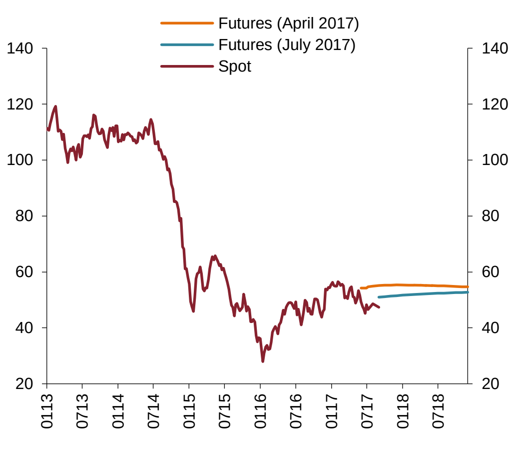
Amid the recent measures taken to contain the surging indebtedness in the Chinese economy, production in the construction and automotive sectors decelerated, which caused industrial metal prices to fall in the second quarter of the year. Moreover, ongoing favorable weather conditions in the second quarter coupled with abundant global agricultural production resulted in a decline in agricultural prices. The fall in energy prices is attributed to the decreasing crude oil prices. The OPEC agreement to cut output, which was announced at the start of the year, was extended for 9 months in the late May meeting against undesirably low prices stemming partly from some deal-breaking OPEC members. Moreover, the shale oil production in the US and the continuing jump in stocks are believed to slow down the stabilization in the crude oil market. In the second quarter of the year, the relatively lower volatility in international financial markets accompanied by the optimism since early 2017 caused gold prices to remain flat. In this context, the precious metal index posted an increase by 2.6 percent on average in the second quarter of the year (Chart 2.2.1).

**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)

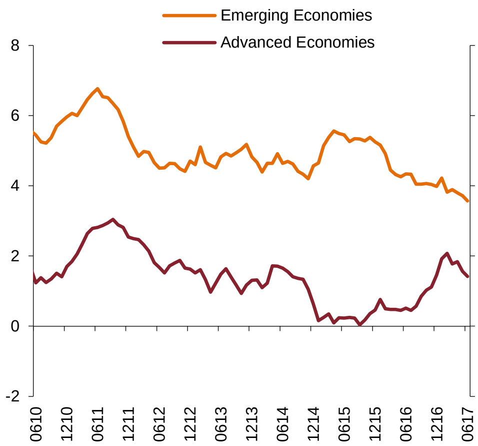



* Futures (July 2017) and Futures (April 2017) denote the arithmetic mean of the prices quoted at futures contracts during 1-27 July 2017 and 1-25 April 2017, respectively.
Source: Bloomberg.

The facts that crude oil stocks of the OECD members still remain high, that the US is expected to produce and stock more, and the OPEC extended the output cut deal due to the absence of a stabilized crude oil market suggest a possibly limited rise in oil prices for the upcoming period. The December 2018 contract for Brent crude oil indicates that crude oil prices will hover at the USD 50-55 band (Chart 2.2.2).

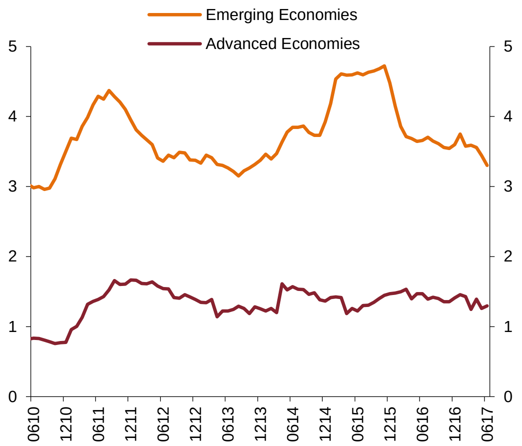
Against this background, inflation rates inched down both in advanced and emerging economies in the inter-reporting period (Chart 2.2.3). Core inflation rates remained unchanged in advanced economies, but edged down in emerging economies in this period (Chart 2.2.4). Inflation forecasts for end-2017 reveal downward revisions in emerging economies and advanced economies excluding the UK compared to the previous Report. Forecasts for end-2018 from the previous reporting period were revised moderately downwards (Table 2.2.1).

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




Source: Bloomberg, CBRT.

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




Source: Bloomberg, Datastream, CBRT.

Owing to the base effect caused by the low levels of oil prices recorded in January 2016, inflation posted an increase in advanced economies up to February 2017. After oil prices stabilized, consumer inflation in advanced economies inched down. Furthermore, despite the tightening in the US labor market conditions, nominal wage increases remained limited due to low productivity gains. The US labor markets do not pose inflationary pressures and inflation expectations derived from surveys and markets do not deviate from the 2-percent target, suggesting a mild inflation outlook in the US. It is envisaged that the inflation rate will stabilize in the Euro area and converge to 2 percent in the medium term with a rather moderate increase, while Japan will see inflation coming close to the 2-percent target. On the other hand, following the Brexit referendum, the British sterling depreciated due to the ambiguous UK-EU relationship and the recent UK elections; and this generated an inflationary pressure, bringing inflation above the forecasts. Inflation is expected to hover persistently above the 2-percent target in the UK. Should the policy normalization by the Fed and the ECB outpace the expectations, probable depreciations in the local currencies of emerging economies and possible hikes in commodity prices, especially oil, will be the foremost factors to pose an upside risk to global inflation in the upcoming period.

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

| | April | | July | |
|---|---|---|---|---|
| | 2017 | 2018 | 2017 | 2018 |
| Global | 3.1 | 2.9 | 3.0 | 2.8 |
| *Advanced Economies* | | | | |
| USA | 2.5 | 2.3 | 2.1 | 2.1 |
| Euro Area | 1.6 | 1.4 | 1.5 | 1.4 |
| Germany | 1.8 | 1.7 | 1.7 | 1.6 |
| France | 1.3 | 1.4 | 1.1 | 1.2 |
| Italy | 1.3 | 1.3 | 1.4 | 1.2 |
| Spain | 2.2 | 1.5 | 2.0 | 1.4 |
| Greece* | 1.0 | 1.0 | 1.1 | 1.0 |
| UK | 2.6 | 2.7 | 2.7 | 2.7 |
| Japan | 0.7 | 1.0 | 0.5 | 0.8 |
| *Emerging Economies* | | | | |
| Asia-Pacific | 2.2 | 2.3 | 1.9 | 2.2 |
| China | 2.3 | 2.3 | 1.8 | 2.1 |
| India** | 4.8 | 5.0 | 3.8 | 4.6 |
| Latin America | 11.2 | 9.5 | 12.4 | 10.8 |
| Brazil* | 4.2 | 4.4 | 3.4 | 4.2 |
| Eastern Europe | 5.2 | 4.7 | 5.3 | 4.7 |
| Russia* | 4.2 | 4.2 | 4.1 | 4.2 |

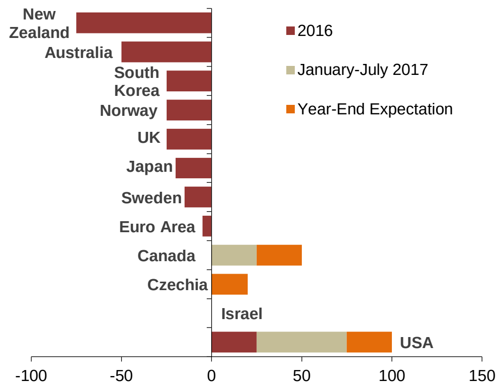
* Annual percent change.
** Based on fiscal year.
Source: Consensus Forecasts.

## 2.3. Global Monetary Policy

The Fed raised the policy rate by 25 basis points in the second quarter of the year as expected. Normalization proceeds in the way and at the pace announced by the Fed at the end of 2016, which therefore causes no excessive fluctuations in financial markets. Moreover, other major central banks also signal a possible monetary tightening in the medium term in line with the improved prospects, which caused the year-end expectation for policy rate changes to move upwards in the inter-reporting period. Accordingly, the Bank of Canada and the Czech National Bank are more likely to implement rate hikes before the end of the year (Chart 2.3.1). Meanwhile, the ECB is expected to deliver no policy rate hikes in both 2017 and 2018. However, scaling down on quantitative easing is viewed to be more likely due both to the brighter growth outlook and the ECB's announcements.

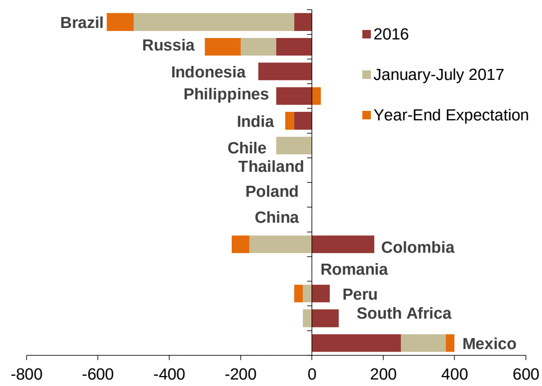
Emerging economies have barely changed their monetary policy stances since the previous Report, and central banks of Brazil, Russia and Colombia continued with rate cuts during April and July amid the improved inflation outlook. These central banks are envisaged to opt for further easing in their monetary policies in the remainder of the year. On the other hand, the Bank of Mexico maintained a tight monetary policy stance via a further rate hike of 50 basis points from April to July, thereby registering a cumulative increase of 125 basis points since the start of the year. The Bank of Mexico is expected to deliver an additional hike by 25 basis points before the end of the year. In other emerging economies, the monetary policy outlook is relatively more steady (Chart 2.3.2).

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




* As of 27 July 2017.
Source: Bloomberg.

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




* As of 27 July 2017.
Source: Bloomberg.

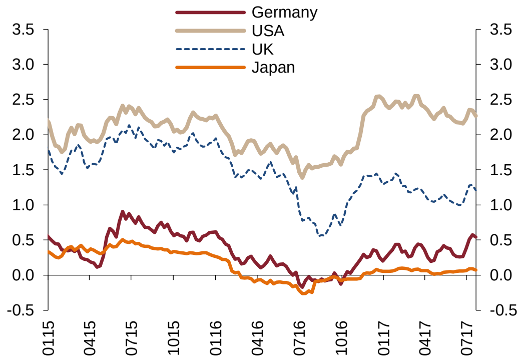
Normalization of monetary policy by major central banks, especially the Fed, will continue to be a major agenda item in the upcoming period. As global growth continues to recover, central banks are anticipated to tighten their policies gradually. One good example of this is how the ECB changed its policy discourse as a result of the favorable course of economic activity. The ECB is expected to be more precise about its normalization plans as of September.

Details about the Fed's balance sheet rundown became more evident at the June meeting. Accordingly, the Fed is likely to start downsizing its balance sheet in the second half of 2017, and as per the announced program, the balance sheet is supposed to be scaled down slowly but incrementally. The attention devoted to communication and the absence of any negative impact of these announcements on the risk appetite in financial markets are promising for emerging economies. On the other hand, effects of the operation will become clear only after the start of the process.

## 2.4. Global Risk Indicators and Portfolio Flows

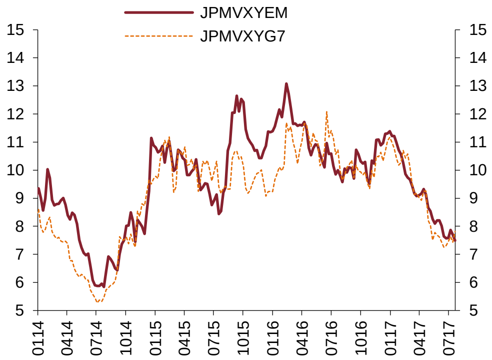
In the second quarter of the year, global financial conditions remained positive on the back of increased optimism for global economic activity and the Fed's continuing with its normalizing policy as planned. Thus, long-term yields remained almost flat in the first half of the year (Chart 2.4.1).

**Chart 2.4.1.**
10-Year Bond Rates
(Percent)




Source: Bloomberg.

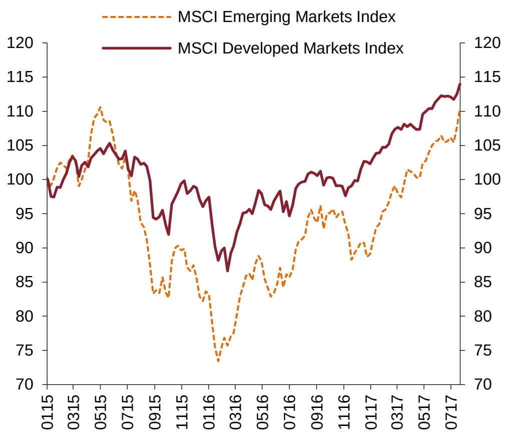
**Chart 2.4.2.**
JP Morgan Volatility Indices
(Weekly Average)




Source: Bloomberg.

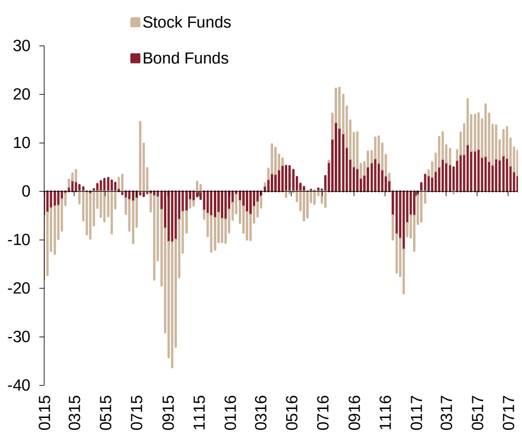
Moreover, financial markets proved less volatile amid the elevated global risk appetite driven by the remarkably more favorable outlook in global economic activity (Chart 2.4.2). Both advanced and emerging economies experienced strong capital inflows in the second quarter of the year, which was marked by lower volatility and higher risk appetite (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.

Aggravated volatility in financial markets driven by the US elections and mounting uncertainties over the Fed's policies led to sudden portfolio outflows from emerging economies in the last quarter of 2016. However, as of early 2017, global economic activity grew stronger and the Fed's policies proved less ambiguous, which caused emerging economies to attract portfolio flows. In the second quarter of the year, more favorable growth outlook and abated volatilities resulted in accelerated portfolio flows to emerging economies (Chart 2.4.4). The regional breakdown of portfolio flows reveals that all regions registered increases in the second quarter of the year. Flows to stock markets were oriented towards Asian countries, mainly China. As a hard-landing was averted and the economic outlook turned positive on the back of expansionary policies taken by the government, portfolio flows to China gained momentum. As for the bond market, the inflows were mostly oriented towards Latin American countries, which, in general, have been experiencing disinflation (Table 2.4.1).

**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 | MENA |
| 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 |

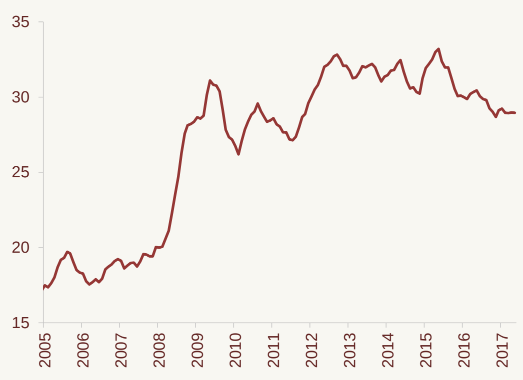
Source: EPFR.

## Box 2.1 The Expanded Coverage of the Export-Weighted Global Growth Index

The export-weighted global growth index is an average growth index constructed by weighting the economic growth rates of countries that import Turkish goods according to their respective share within Turkish exports. The index serves as a foreign demand indicator, as it gives an insight into the average market growth in Turkey's export destinations.[1] This box introduces the expanded coverage of the export-weighted global growth index, and then presents an analysis on how the income elasticity of exports changes when estimated by the current and the new indices.[2]

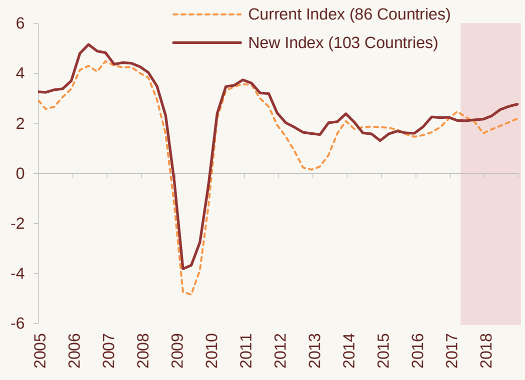
The recessionary period after the global crisis in advanced economies, particularly in the US and the Europe, has led Turkish exporters to turn towards the MENA region in search of new markets. Accordingly, the share of MENA countries within Turkish exports (excluding gold), which had hovered below 20 percent until 2008, surged in 2009 and has remained around 30 percent since then (Chart 1). This evident development necessitated an update on the export-weighted global growth index, so that the share of MENA countries, which was under-represented in the current index, could be improved to more accurately reflect the region's role among export markets by using new and reliable data sources.

**Chart 1.** Share of MENA Countries within Exports
(Excluding Gold, Percent, 6-Month Moving Average)




Source: TURKSTAT.

**Chart 2.** Current and New Export-Weighted Global Growth Indices*
(Annual Percent Change)




* Shaded area denotes forecast.
Source: Bloomberg, IHS, CBRT.

To this end, 17 new countries, including some MENA countries with a considerable share in our exports, were added to calculations and the coverage of the foreign demand indicator was expanded.[3] Thus, the number of countries in the index was increased from 86 to 103, and the export coverage ratio of the index (excluding gold), according to 2016 averages, was raised from 78.6 percent to 94.4 percent (Table 1).

[1] For the previous version of the index, see CBRT (2010).
[2] This box is based on Erduman and Kaya-Ekşi (2017).
[3] Newly added countries are Albania, Algeria, Armenia, Azerbaijan, Iraq, Kuwait, Lebanon, Libya, Moldova, Pakistan, Palestine, Syria, Tajikistan, Turkmenistan, United Arab Emirates, Uzbekistan and Yemen.

**Table 1.** Comparison of the Coverage of the Current and New Foreign Demand Indices

| | Current | New |
|---|---|---|
| Number of countries | 86 | 103 |
| Representation rate (Percent) | 78.6 | 94.4 |
| Data source | Bloomberg and Consensus Forecasts | IHS and IFS |

The comparison of the current and the new indices shows that the series move in parallel, but the new index implies a more favorable foreign demand outlook, particularly in the 2009-2014 period (Chart 2). This differentiation stems from the relatively higher growth rates registered by the newly included countries during that period. In other words, as the new index has a wider coverage of countries, including those from the MENA region, it can be concluded that Turkish exporters' losses in the European market after the global crisis were considerably offset by the exports oriented towards the MENA countries. The projections of the expanded index, calculated based on growth forecasts of international agencies, implies that the demand conditions will be more favorable in the upcoming period.

In the second stage, in order to analyze how the income elasticity of Turkish exports changes between the current and the new index, an export demand function for Turkey is estimated According to the literature, the export demand of a country is defined as a function of importers' real income and relative prices. Thus, an increase in foreign demand led by higher real income is expected to push exports upwards, while an increase in the real exchange rate causes lower competitiveness and is expected to push exports downwards. Previous studies on Turkey, though focusing on different periods, reach the same conclusion that the long-run elasticity of export demand is positive and statistically significant.

The export demand function for Turkey is estimated by the following model:

$$Log\ (Qx)_t = \alpha + \beta\ Log\ (Foreign\ Demand)_t + \gamma\ Log(Real\ Exchange\ Rate)_t + \varepsilon_t$$

The dependent variable $Qx_t$ represents seasonally adjusted real export quantity index (excluding gold) at time t. $Foreign\ demand_t$ and $Real\ exchange\ rate_t$ show foreign demand and CPI-based real exchange rate indices at time t, respectively. The analysis uses quarterly data, where the base year is set to be 2010. Since the long-run relationship among variables is estimated by a cointegration analysis, variables are included in the model in levels.[4] The model is estimated by both the existing and the newly derived export-weighted global growth indices. Unit root test results indicate that error terms of both models are stationary. The stationarity of the linear combination of variables included in both models implies cointegration among variables. This indicates that there is a long-run relationship between exports, foreign demand and real exchange rate.

Findings seem consistent with the previous studies conducted for Turkey. In both long-run models, the main determinant of exports is foreign demand. According to the model employing the current index covering 86 countries, a 1-unit change in foreign demand increases the export quantity index (excluding gold) by 3.13 units. On the other hand, in the model using the new index comprising of 103 countries, a 1-unit change in foreign demand raises the export quantity index by 2.52 units. Thus, the income elasticity is lower for newly derived index as can be inferred by the lower coefficient of foreign demand. However, this is expected as newly added countries registered higher growth rates as explained above.

[4] According to unit root test results, all variables are first-order stationary. For the model to imply a viable long-run relationship, the error term should be stationary.

In sum, expanding the coverage of the export-weighted global growth index to include the MENA countries improves the informative value of the index in terms of better evaluation of foreign demand conditions. Projections regarding the new index imply that foreign demand conditions will be more promising in the period to come. In this context, Turkey's exports, which have gained momentum since the last quarter of 2016, are expected to improve further in the upcoming period.

**References**

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