

II. Macroeconomic Outlook

The move of the central banks of advanced economies towards accommodative monetary policies due to the growth and inflation outlook has contributed to the improvement in global financial conditions and increased risk appetite towards EMEs. Nevertheless, despite the improvement in global financial conditions, portfolio flows towards EMEs remain volatile because of the uncertainties in global policies. There are portfolio outflows from EME securities markets, while limited inflows are observed towards EME bond markets amid the low interest rate environment in advanced economy bond markets. The slowdown in global economic activity, high indebtedness, persisting global trade tensions, the uncertainty over the Brexit process and geopolitical developments continue to pose downside risks to global financial stability.

In the current Report period, the downtrend in Turkey's risk premium and exchange rate volatility continued on the back of the relatively positive course in global financial conditions, improvement in domestic macroeconomic indicators and expectations, and the cautious monetary policy stance. The moderate and gradual recovery observed in domestic economic activity was mostly driven by net exports in the first half and by consumer spending in the third quarter of 2019. The fall in interest rates and improvement in financial conditions, which came on the back of the downward trend in inflation and the improvement in inflation expectations, support credit demand and economic activity. Over the past few months, there has been a rise in the demand for TL credits, particularly for general purpose loans and housing loans. Notwithstanding the weakening in global growth outlook, Turkey remains competitive in foreign trade thanks to firms' flexibility in diversifying their export markets.

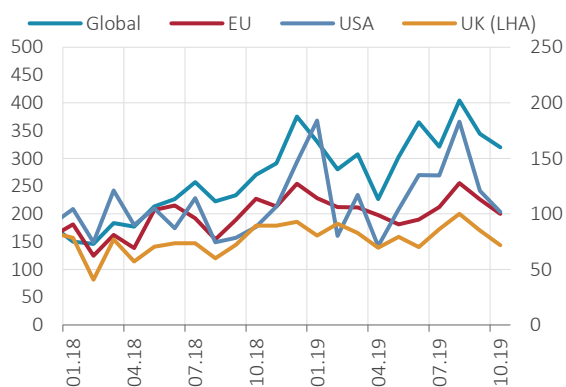
II.1 International Developments

Global economic policy uncertainties, which displayed a downtrend in the first four months of the year, soared due to concerns over global growth, increased protectionist trade policies and geopolitical risks (Chart II.1.1). As for the United States, the change in the Fed's monetary policy stance, the ongoing trade dispute with China and domestic policy developments have been weighing on the USA's economic policy predictability. Meanwhile, the downward trend in EU economic policy uncertainty observed in the previous Report period reversed due to the Brexit developments and concerns over the EU economy.

The Fed changed its monetary policy stance in 2019 and cut policy rates by a total of 75 basis points with three cuts in July, September and October. With these policy rate cut decisions that were driven by downside risks to growth, the inflation trend and developments in the labor market, the Fed also stopped the balance sheet reduction. There has been a limited downward revision in the Federal Open Market Committee (FOMC) members' median policy rate forecast (Chart II.1.2). Meanwhile, market expectations suggest that policy rate cuts will continue. For 2020 and 2021, market players expect more rate cuts than FOMC members.

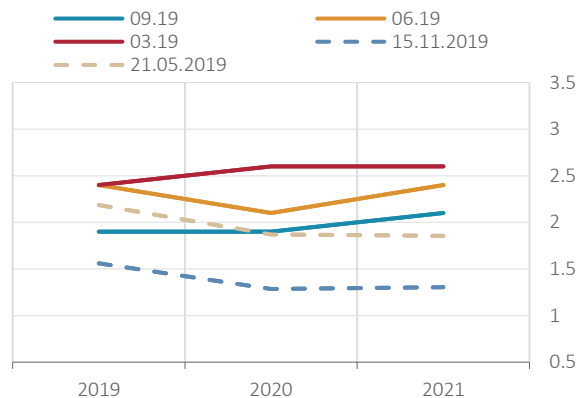
The European Central Bank (ECB) cut policy rates in September 2019 and as of November, it decided to resume the asset-purchasing program that was terminated at the end of 2018. The policy change was mainly driven by concerns over growth in the EU economy especially that of Germany and France, uncertainties pertaining to the Brexit process and increased public and corporate sector indebtedness. Despite the moderate growth in Japan, the Bank of Japan is expected to maintain its expansionary monetary policy due to weak foreign demand and the inflation outlook. In China, the People's Bank of China has been implementing a policy based on reserve requirement and supporting credit market because of concerns over growth, weak foreign demand, changes in custom tariffs due to trade tensions with the USA and rising indebtedness.

Chart II.1.1: Economic Policy Uncertainty Indices
(Index, 2012=100)



Source: Bloomberg Last Observation: 10.19
Note: Indices are not comparable in terms of level.

Chart II.1.2: Median Policy Rate Forecasts of FOMC Members (Solid Lines) and Market Expectations (Dashed Lines) (%)

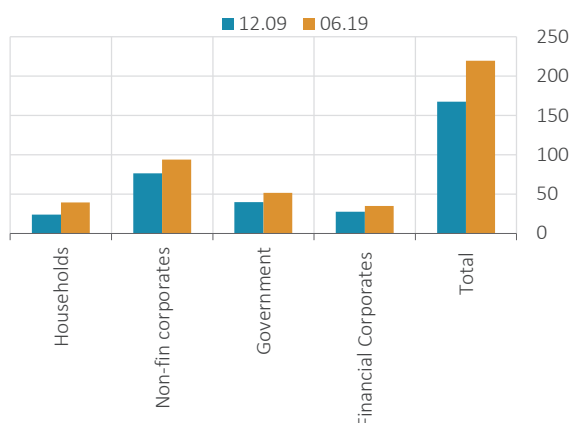


Source: Bloomberg Last Observation: 15.11.19
Note: Dashed lines indicate 30-day Fed fund futures implied rates.

Global indebtedness continues to be a vulnerability factor in advanced economies as well as in EMEs particularly because of increasing corporate and public sector indebtedness (Chart II.1.3). On the other hand, in EMEs, FX indebtedness has decreased compared to the global financial crisis period owing to the limitations introduced on FX borrowing, particularly on household FX borrowing (Chart II.1.4).

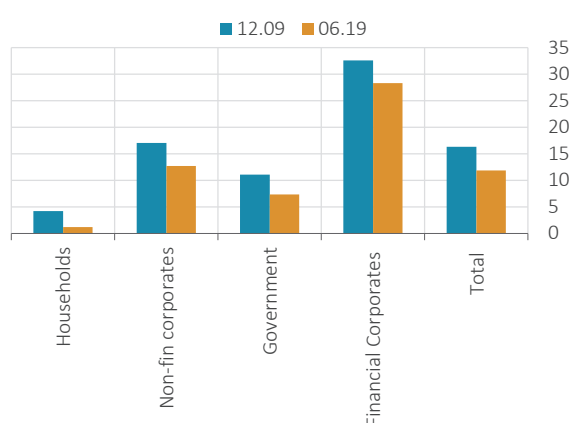
Nevertheless, the rise in borrowing facilities particularly of the corporate sector that came on the back of the expansionary monetary policy steps taken by advanced economy central banks may pose an upside risk to global indebtedness.

Chart II.1.3: Sector-Based Indebtedness in EMEs (% of GDP)



Source: IIF
 Last Observation: 06.19
 Note: Average is calculated based on countries' GDP weights. EMEs: Argentina, Brazil, Chile, China, Colombia, Czechia, Egypt, Ghana, Hong Kong, Hungary, India, Indonesia, Israel, Kenya, Lebanon, Malaysia, Mexico, Nigeria, Pakistan, Philippines, Poland, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Thailand, Turkey, Ukraine and United Arab Emirates.

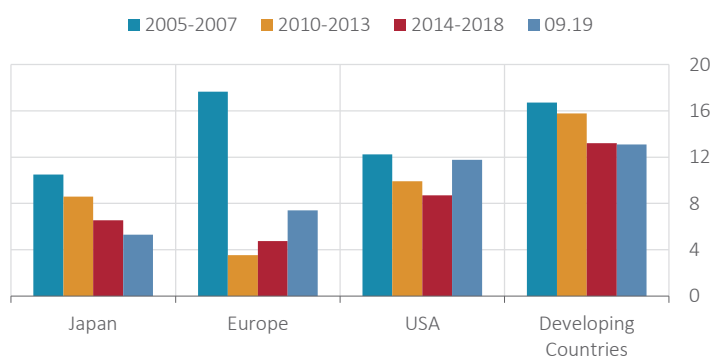
Chart II.1.4: Sector-Based FX Borrowing in EMEs (% of Total Borrowing)



Source: IIF
 Last Observation: 06.19
 Note: EMEs: Argentina, Brazil, Chile, China, Colombia, Czechia, Hong Kong, Hungary, India, Indonesia, Israel, South Korea, Malaysia, Mexico, Poland, Russia, Saudi Arabia, Singapore, South Africa, Thailand, Turkey.

The expansionary monetary policies implemented by advanced economy central banks, the flat yield curve and the weak growth outlook have had important reverberations on these countries' financial sectors. Moreover, due to some country and bank-specific conditions such as the changes in business models and deterioration in asset quality, the return on capital of the banking sector has been generally hovering below the pre-global financial crisis levels (Chart II.1.5).

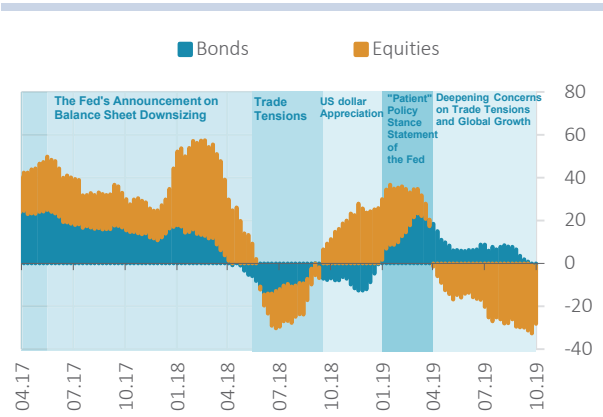
Chart II.1.5: Banks' Return on Capital (%)



Source: Bloomberg
 Last Observation: 09.19
 Note: Tokyo Stock Exchange TOPIX Banks Index, Bloomberg European 500 Banks and Financial Services Index, S&P 500 Banks Industry Group Index, MSCI EM Banks Index.

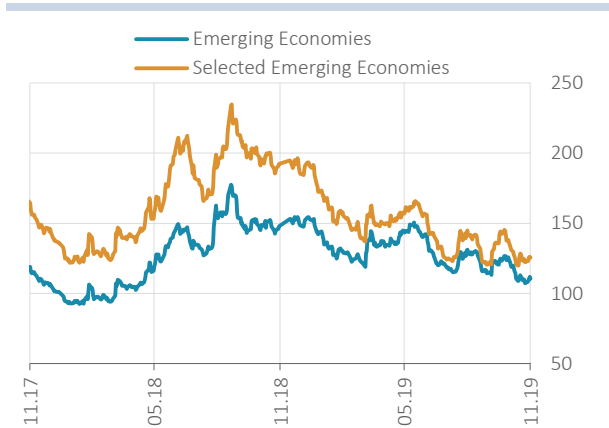
Due to the moderate easing in financial conditions and the fluctuating risk appetite, capital flows towards EMEs vary with respect to bond and stock markets. There have been portfolio outflows from stock markets because of the increased global trade tensions and concerns over both global growth and the growth outlook in EMEs, particularly in China and India (Chart II.1.6). Meanwhile, the termination of the normalization process in monetary policies of advanced economies underpinned portfolio flows towards EME bond markets. Against this backdrop, the volatile trend in portfolio flows towards EMEs is projected to continue in the upcoming period. On the other hand, there has been a drop in the risk premiums of such countries since the last Report period (Chart II.1.7).

Chart II.1.6: Weekly Capital Flows to EMEs (13-week Cumulative, Billion USD)



Source: EPFR Last Observation: 30.10.19

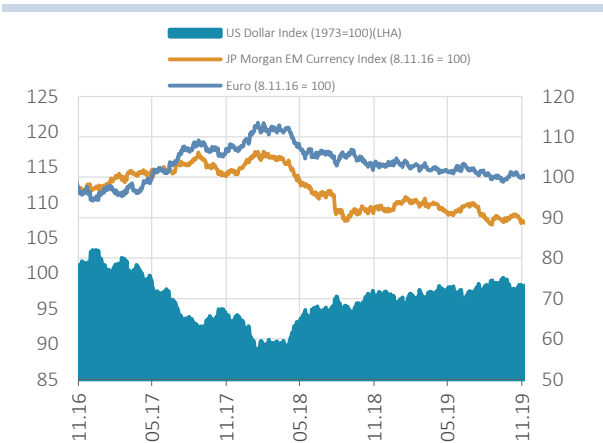
Chart II.1.7: CDS Premiums in Emerging Economies (Basis Points)



Source: Bloomberg Last Observation: 15.11.19
 Note: Emerging economies include Brazil, Czechia, Indonesia, S. Africa, Colombia, Hungary, Poland, Romania, Turkey and Chile. Brazil, Indonesia and South Africa CDS premiums have been used in the calculation of selected EMEs average.

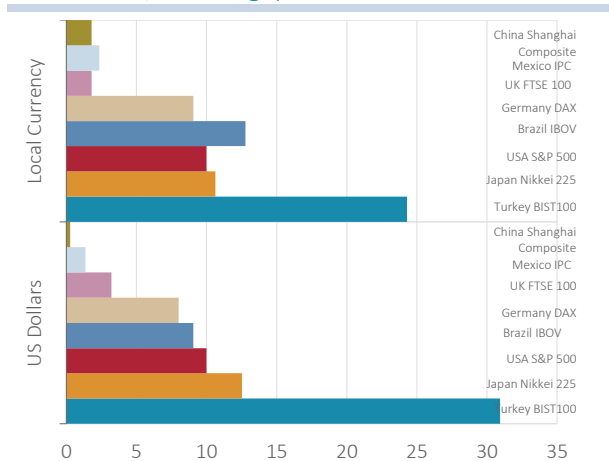
Currencies of advanced economies and EMEs have followed a fluctuating trend against the US dollars (Chart II.1.8). Amid easing in global liquidity conditions in the current Report period, stock markets both in EMEs including Turkey and in advanced economies displayed a positive outlook in their local currencies as well as in US dollars (Chart II.1.9).

Chart II.1.8: Exchange Rate Indices (Index)



Source: Bloomberg Last Observation: 15.11.19

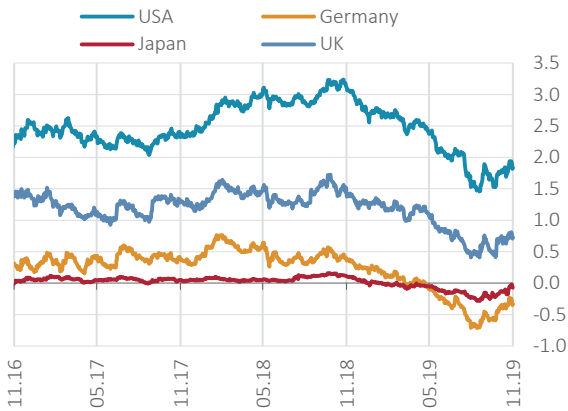
Chart II.1.9: Stock Indices (21.05.2019-15.11.2019, % Change)



Source: Bloomberg Last Observation: 15.11.19

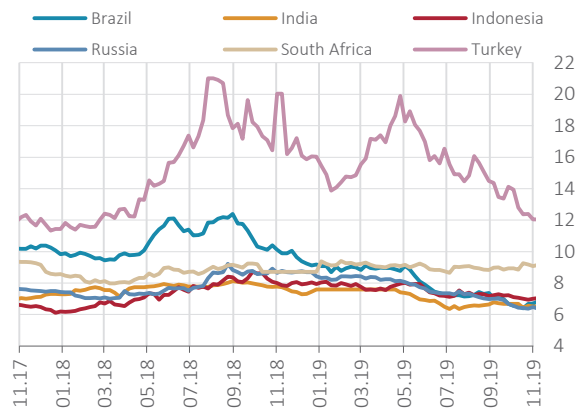
In the current Report period, there has been a downtrend in bond returns due to the expansionary monetary policies implemented by advanced economies (Chart II.1.10). Actually, in Germany and Japan, bond returns assumed negative ratios due to market expectations for inflation and growth. These developments in the global bond markets may affect financial stability via various channels (Box II.1.II). EME bond rates also displayed a similar trend on the back of the improved global financial conditions and the portfolio flows towards EME bond markets (Chart II.1.11).

Chart II.1.10: 10-Year Treasury Bill Returns in Advanced Economies (%)



Source: Bloomberg Last Observation: 15.11.19

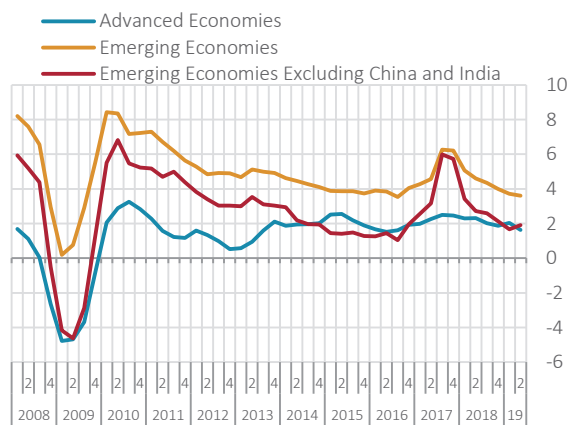
Chart II.1.11: 10-Year Treasury Bill Returns in EMEs (%)



Source: Bloomberg Last Observation: 15.11.19

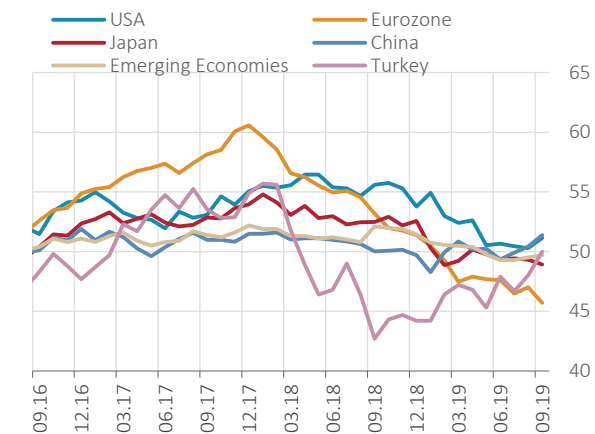
Since the last Report period, concerns over the growth outlook in advanced and emerging economies have increased. At the end of 2019, global economic activity is expected to hit the lowest growth performance since the global financial crisis. Economic activity in advanced economies, led by the USA and the euro area, decreased due to factors stemming from foreign trade and production (Chart II.1.12). Meanwhile in EMEs, there has been an automotive and corporate sector-led contraction in India, while the customs tariffs imposed by the USA on China and weaker external demand pose downside risk to growth in China. Actually, the Chinese economy displays the weakest growth performance since 1992. Nevertheless, a limited improvement is observed in EME growth outlook, excluding China and India, with the support from countries like Brazil and South Korea. Meanwhile, leading indicators of growth point to a moderate growth trend in the USA and China, and a weakening in the euro area and Japan (Chart II.1.13).

Chart II.1.12: Y-o-Y Growth Rates in Advanced Economies and EMEs (%)



Source: Bloomberg, CBRT Last Observation: 06.19

Chart II.1.13: Manufacturing Industry PMI (Index)



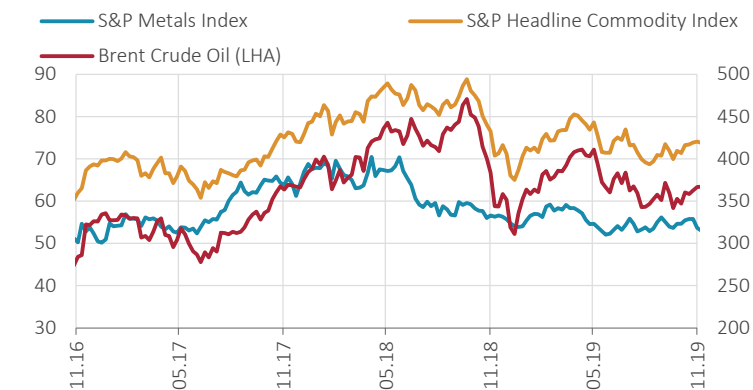
Source: Bloomberg, CBRT Last Observation: 09.19

Note: Advanced Economies: USA, euro area, Japan, UK, Canada, S. Korea, Switzerland, Sweden, Norway, Denmark, and Israel. Emerging Economies: China, Brazil, India, Mexico, Russia, Turkey, Poland, Indonesia, S. Africa, Argentina, Thailand, Malaysia, Czechia, Colombia, Hungary, Romania, Philippines, Ukraine, Chile, Peru, and Morocco.

Commodity prices have displayed a fluctuating trend since the last Report period (Chart II.1.14). Despite the rise in crude oil production in the USA and the moderate demand owing to the weak global economic activity, the decrease in oil prices remained limited due to the unfavorable impacts of the sanctions

imposed on Iran, production cuts in OPEC led by Venezuela and Libya and the attacks on Saudi oil facilities. Meanwhile, the metal index remained flat owing to moderate demand.

Chart II.1.14: Commodity Indices (US dollars, Index)



Source: Bloomberg

Last Observation: 15.11.19

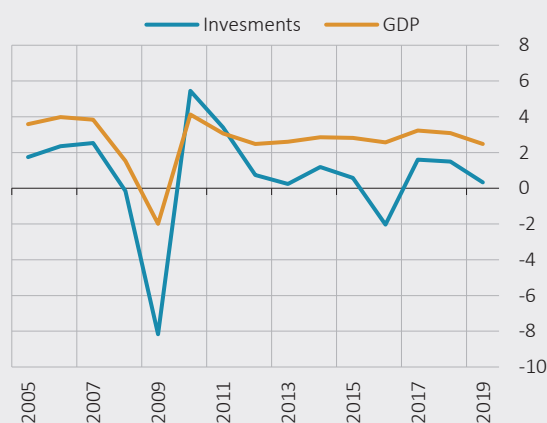
Currently, the slowdown in global economic activity, the persisting high indebtedness in advanced economies as well as in the EMEs, the adverse impact of increased protectionist trade policies, uncertainties pertaining to the Brexit process and geopolitical developments all combine to pose a downside risk to global financial stability (Box II.1.I). Within the framework of the reform agenda prepared after the global financial crisis, the capital structure of the banking sector was strengthened, a comprehensive monitoring framework was set up for non-bank financial intermediation activities and arrangements were introduced to make derivatives markets more transparent. Maintaining these achievements is crucial. In this respect, prudent management of transition to risk-free interest rates for financial contracts is very important for transactions and parties subject to this process (Box II.1.III). In the upcoming period, it will be important for the national and international authorities to be ready to address the existing and potential new risks and to act in collaboration.

Box II.1.1

Impact of Protectionist Foreign Trade Policies on Global Economy and Financial Markets

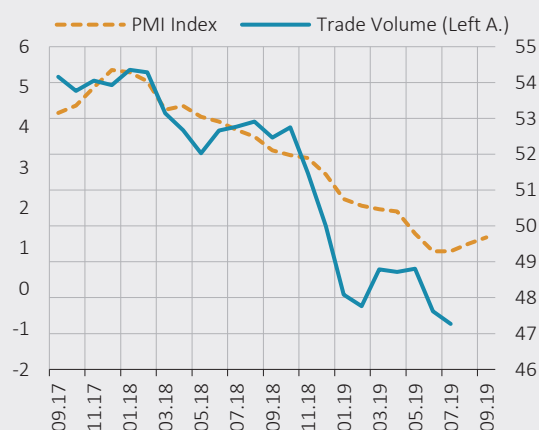
After the global financial crisis, protectionist policies in international trade increased due to weak economic growth, adverse employment developments, decreasing investments and more pronounced geopolitical risks. In this period, the launch of the Brexit process coupled with the policies introduced after the Presidential election in the USA in 2016 fueled uncertainties and increased concerns over the impact of protectionist trade policies on international trade volume, growth and employment. Although the decrease in global trade volume slowed down in 2019 and leading indicators of manufacturing industry increased in the second half of the year, economic activity is still sluggish (Chart II.1.1, Chart II.1.2).

Chart II.1.1.1: Global Growth and Investment
(Annual % Change)



Source: IMF Last Observation: 24.09.19
Note: The GDP series calculated by market exchange rates has been used.

Chart II.1.1.2: Global Trade Volume Index and Manufacturing Industry PMI Index



Source: CPB, Bloomberg Last Observation: 20.09.19
Note: The Global Trade Volume index has been taken as the annual percentage change. Global Manufacturing Industry PMI indices have been seasonally-adjusted.

The trade volume covered by the import-restrictive measures that were implemented for the first time in the G20 countries was USD 32 billion in 2017 and it increased to USD 481 billion in 2018.¹ Moreover, escalating trade tensions between the USA and China ended up in protectionist trade policies that started to be listed as a risk factor with respect to global economic growth and financial conditions.

In 2018, the USA imposed additional tariffs of 25% on Chinese goods worth of USD 50 billion from several sectors excluding shoes, clothes, textiles, minerals and electrical- electronic products; 10% on USD 200 billion worth of Chinese goods. Moreover, it decided to impose additional tariffs of 25% on iron and 10% on aluminum imported from all other countries. In 2019, an additional tariff of 15% was imposed on USD 200 billion worth of goods imported from China. Lastly, it was announced that until the end of 2019, the USA will have imposed additional tariffs on USD 300 billion worth of Chinese goods. As a result of these developments, the ratio of trade-weighted average tariff applied by the USA on goods from China, which was 3.1% in 2017, increased to 17.6% in May 2019. In his study, Brown (2019) said that this ratio would increase to 26.6% with the new tariffs to be introduced until the end of the year. In response to the USA's

¹ "Report on G20 Trade Measures", WTO OMC, June 2019.

steps, China raised tariffs on USD 10 billion of American goods increasing the average tariff ratio applied to imports from the USA from 8% to 16.5%. This ratio is projected to reach 25.9% by the end of 2019.²

These trade tariffs between the two countries and the risk of a spillover of these tariffs to different countries and sectors have been affecting the corporate sector, financial markets and confidence indices adversely. Actually, the persisting uncertainties about trade policies are having a more adverse impact on economic growth and trade volume than the new customs tariffs introduced.³ The IMF forecasts that the increase in the USA's trade policy uncertainty would decrease global growth by 0.75% in 2019. Moreover, the IMF also forecasts that the customs tariffs introduced by the USA and China reciprocally in 2018 and 2019 would decrease global GDP by 0.8% in 2020. Recently, the IMF revised its forecast for global economic growth for 2019 from 3.6% down to 3%. This is the lowest growth forecast of the last 10 years. Meanwhile, growth forecast for China for 2019 and 2020, which were announced as 6.2% and 6%, were the lowest in 20 years (IMF WEO, October 2019).

Expectations that trade tensions are not likely to be settled in the short run are adversely affecting firms' capital investments and global supply chain. Increased uncertainties lead to a decline in firms' fixed capital investment in manufacturing industry. Studies find that the escalation in the USA Trade Policy Uncertainty Index between 2017 and 2019 would lead to a drop of 1% to 2% in total investments.⁴

Escalating uncertainties about global economic policies and trade policies affect financial markets via several channels. The rise in global economic uncertainties, which started in 2018, has had an important effect on the flow of funds towards EMEs (Chart II.1.3). In the Fed's recent monetary policy stance, trade policy uncertainties are accepted as variables that may affect employment and inflation outlook.⁵ Moreover, it is stated that this policy uncertainty affects global economic activity via the weak manufacturing industry and investment spending in the USA. The trade policy uncertainty, which affects the Fed's policy framework and influences the monetary policy stance, indirectly affects global financial conditions. Moreover, the trade tariffs reciprocally introduced by the US and China have negative reverberations on securities markets (Chart II.1.4). There are quantitative studies suggesting that securities and bond returns of firms that manufacture goods in the USA or China and engage in foreign trade activities between these two countries, are more adversely affected by these customs tariffs. This reveals the significant impacts of protectionist trade policies on global financial markets.⁶

² Brown, C P (2019), "U.S.-China Trade War: The Guns of August," Peterson Institute for International Economics, 26 August 2019.

Brown, C. P. and E. Y. Zhang (2019), "Trump's Latest Trade War Escalation Will Push Average Tariffs Above 20 Percent," Peterson Institute for International Economics, 6 August 2019.

³ <https://voxeu.org/article/tariffs-and-monetary-policy-toxic-mix>

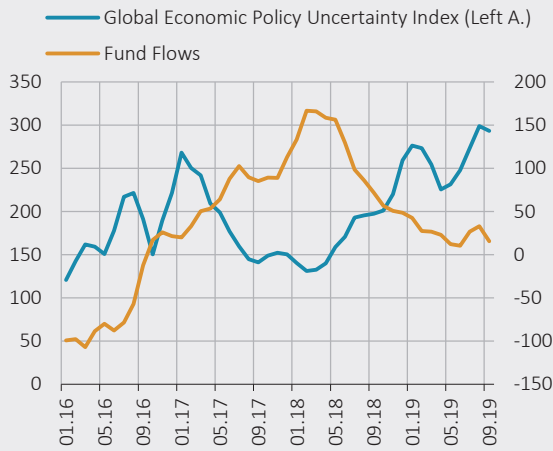
⁴ Ahir, H., N. Bloom, and D. Furceri (2019), "Caution: Trade uncertainty is rising and can harm the global economy", voxeu.org, 4 July 2019.

Caldara, D., M. Iacoviello, P. Molligo, A. Prestipino, and A. Raffo (2019), "The Economic Effects of Trade Policy Uncertainty", Fed, 3 November 2019.

⁵ Powell, J. (2019), "Challenges for Monetary Policy", Federal Reserve Bank of Kansas City Jackson Hole Symposium, August 2019.

⁶ Huang, Y., C. Chen, S. Liu and H. Tang (2018), "Trade Linkages and Firm Value: Evidence from the 2018 US-China Trade War".

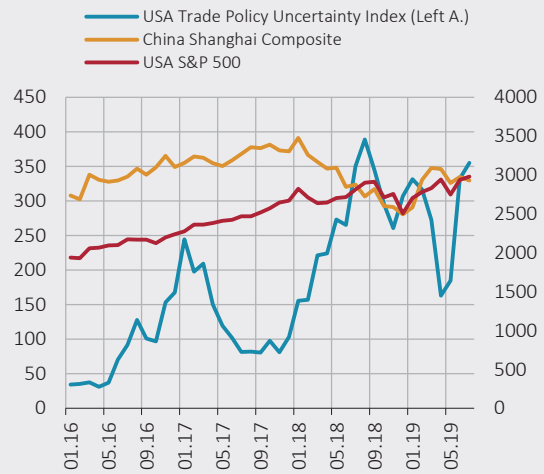
Chart II.1.1.3: Global Economic Policy Uncertainty Index and Monthly Funds towards EMEs (USD Billion)



Source: Bloomberg, PolicyUncertainty.com Last Observation: 4.11.19

Note: US Trade Policy Uncertainty Index is calculated as quarterly moving average.

Chart II.1.1.4: US Trade Policy Uncertainty Index and Stock Market Indices



Source: Bloomberg, EPFR Last Observation: 4.11.19

Note: Flows of funds toward EMEs is composed of 12-month cumulative bond and securities. Global Trade Policy Uncertainty Index is calculated as quarterly moving average.

Protectionist trade policies may influence EMEs via various channels mainly the expectations and trade channels. It is noted that the expectations channel indirectly affects financial markets and corporate sector firms' investment decisions, while the trade channel may directly affect macroeconomic variables such as growth and employment; nevertheless, these effects may vary across countries depending on their structures and regulations. Some EMEs, which have strong commercial relations with the USA or China, are susceptible to these effects. Therefore, it will be important for those indirectly affected countries to implement policies prioritizing financial stability and to use macroprudential tools in an effective and timely manner. A look into the impact of these protectionist policies on Turkey reveals that the direct impact via the trade channel would be limited as the shares of the USA and China in Turkey's total exports was respectively 1.5% and 4.7% by September 2019. In case these policies damage expectations in financial markets and affect capital flows, Turkey may be affected indirectly. Nevertheless, these effects can be mitigated by implementing effective and timely macroprudential policies.

Box II.1.II

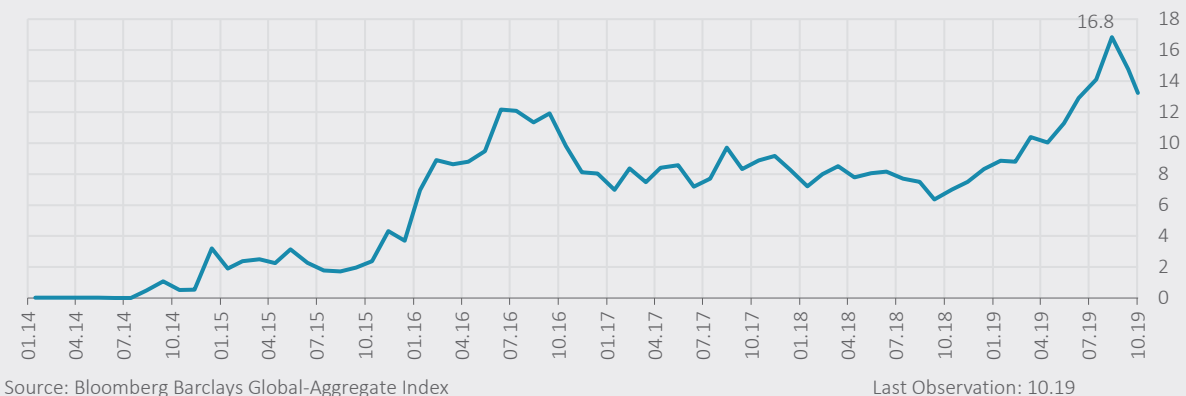
Possible Impacts of Global Bond Market Developments on the Global Financial Stability

In the global bond markets, the demand for investment-grade sovereign bonds in particular has been on the rise for the last four years, which triggers higher prices and longer maturities in all bond markets. The negative interest rate trend in sovereign bonds, which has emerged due to various factors such as expansionary monetary policies of advanced economies, has also spread to corporate bonds market. Among the important changes to monitor are Austria's 100-year bond issues, the negative interest rates in Germany observed in all maturities from overnight interest rates to 30-year bond yields, and the negative interest rates in Switzerland spreading to 50-year bonds. This box summarizes the recent developments in bond markets, and analyzes the drivers of the negative yield environment as well as the possible impacts of vulnerabilities caused by these developments on global bond markets.

Bond Market Developments

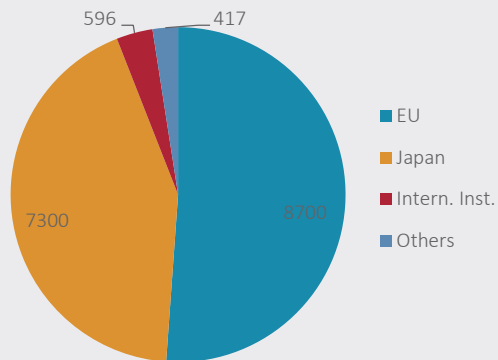
The negative-yield bond stock was approximately USD 33 billion in early 2014 but it sharply increased from the last quarter of 2015 to mid-2016, reaching USD 12 trillion. After assuming a downtrend as of the final quarter of 2016, the bond stock remained flat in 2017 and 2018, and stood at USD 6.4 trillion in the third quarter of 2018. The negative-yield bond stock started to trend upwards again after the third quarter of 2018 and reached USD 17 trillion in August 2019, whereas it decreased slightly by 18 October 2019 to USD 13.2 trillion (Chart II.1.II.1).

Chart II.1.II.1: Negative-Yield Bond Stock by Years (USD Trillion)



A breakdown of negative-yield bond stock as of August 2019 by countries reveals that these bonds are mostly seen in countries with macroeconomic factors such as low inflation and low growth. More than half of them are found in EU countries, and the sovereign bond stock of Japan, which has the second largest share in this market, is over USD 7 trillion, exceeding the total sovereign bonds of the EU (Chart II.1.II.2 and Table II.1.II.1). As for the distribution by the source of bond issues, sovereign bonds account for 85% of negative-yield bonds while 15% of them are made up of bonds issued by the corporate sector - largely by financial institutions. It is noteworthy that all negative-yield bonds in the US and Australia are issued by the corporate sector.

Chart II.1.II.2: Negative-Yield Bond Stock by Countries (USD Billion)



Source: Bloomberg Last Observation: 08.19

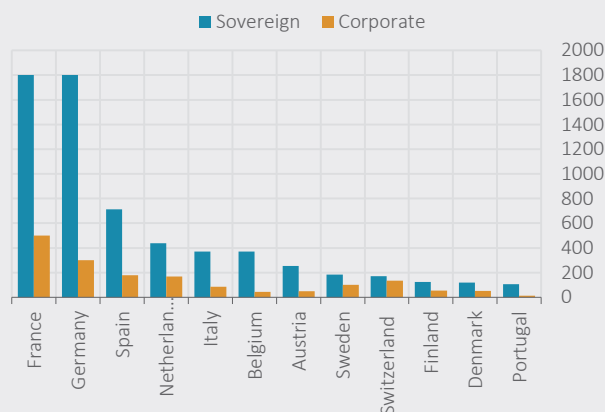
Table II.1.II.1: Negative-Yield Bond Stock by Countries and Sources of Issue (USD Billion)

	Sovereign	Corporate
US	0	225
Canada	30	70
EU	6,800	1,900
Japan	7,300	40
Australia	0	74
New Zealand	1.2	16.8
Total	14,131.2	2,325.8

Source: Bloomberg Last Observation: 08.19

It is noted that the negative-yield bond stock has reached high volumes across EU countries, and sovereign bond rates have dropped to negative figures in countries such as Bulgaria, Romania and Croatia (Table II.1.II.2). Negative-yield corporate bonds are divided into bonds issued by the financial sector and bonds issued by the real sector. The negative-yield corporate bond stock in France, Germany and Italy has reached USD 1 trillion, the majority of which is composed of bonds issued by financial institutions (Chart II.1.II.3).

Chart II.1.II.3: Negative-Yield Bond Stock in EU Countries by Issuer (USD Billion)



Source: Bloomberg Last Observation: 08.19

Table II.1.II.2: Distribution of Negative-Yield Bond Stock in Some EU Countries (USD Billion)

	Sovereign	Corporate	Total
Norway	64.6	16.9	81.5
Slovakia	34.1	2.7	36.8
Ireland	103	11	114
Poland	29.4	4.6	34
Luxembourg	7.2	4.8	12
Czechia	5.8	3.3	9.1
Slovenia	23	0	23
Lithuania	5.4	0	5.4
Bulgaria	4.8	0	4.8
Romania	2.4	0	2.4
Croatia	1.5	0	1.5

Source: Bloomberg Last Observation: 08.19

Noticeably, real sector bonds under the corporate sector category, which are traditionally considered risky, have negative interest rates. A significant portion of such bonds are found in countries such as France, Germany, Italy and Switzerland, and negative-yield real sector bonds have posted a considerable rise in the recent months particularly in Switzerland. The total negative-yield bond stock of the real sector, which was around USD 20 billion before June 2019, has sharply increased to USD 1 trillion in the last three months. However, a likely decline in the demand in the bond market may increase the risk of fire sales in real sector firms' assets as well as the contagion risk.¹

¹ Bloomberg Barclays Global-Aggregate Index

Probable Drivers and Impacts of Bond Market Developments

Three main factors are assessed to be influential in the high demand for negative-yield bonds. First of all, the demand for long-term bonds in particular increases as investors seek yield by purchasing the bonds at spot prices because they anticipate that interest rates will further decline due to expectations for the continuation of expansionary monetary policies of central banks in advanced countries, which will increase the prices of bonds. Second, bonds are considered to be less risky than other instruments, and the yields on alternative markets are low. Third, inflation and growth are also low in countries where bond rates fall below zero, and they are expected to remain so for a while longer. In addition to all these factors, due to the credit rating system, investors want to hold the bonds of those countries that have a high credit rating. Moreover, bonds with low risk weightage are preferred in Basel III CAR and LCR calculations. According to Basel III capital standards, the risk weight of local currency-denominated sovereign bonds is very low or zero, and these assets are considered as high-quality liquid assets in LCR calculations. These factors lead to the emergence of negative-yield bond stocks in bond markets of many countries, in particular the EU. However, such bond stocks are smaller in the US market compared to other advanced markets. The US case may be related to several factors including the Fed's rate hikes and balance-sheet downsizing in previous years following the uptrend in inflation, the higher level of federal funds rate compared to the EU and Japan despite the rate cuts in 2019, the positive consumer demand in the US relative to other advanced economies, and higher inflation and growth rate.

These recent developments in bond markets may affect the global financial stability via three channels. The first channel is that likely sudden developments in countries with a high public debt stock may trigger sales across global markets. If countries with negative-yield bonds in their portfolios start selling these bonds following a liquidity squeeze, this may directly affect the global market liquidity and increase fire sales. Secondly, the effect on global liquidity may heighten risks on many fronts, including the real sector. Due to potential turbulence in the markets, there may be problems in the leverage loans of corporations that cannot borrow from the financial system. Finally, the third channel is the contagion and interconnectedness channel. Interconnectedness covers "correlations across the market prices of financial institutions during all states of the world", or "linkages stemming from all types of services and infrastructure activities among financial institutions" (CBRT-FSR, 2018; Bricco and Xu, 2019). Contagion is defined as "a significant increase in cross-market linkages after a shock to one country (or group of countries)" (Bricco and Xu, 2019). In the context of interconnectedness, a sudden stop in the demand for negative-yield assets in the bond markets may trigger a liquidity shortage in financial institutions that have a large volume of assets, provide infrastructure services, and/or have systemic importance. On the other hand, low or negative interest rates in advanced economies offer a cheaper and longer-term funding opportunity for EMEs to the extent that they improve the investment environment. In Turkey, the ratio of the total amount of all external bonds held in bank balance sheets to the volume of the banking sector assets is 0.16%. In this respect, it is assessed that Turkey does not have a direct vulnerability stemming from negative-yield bonds. However, notwithstanding the opportunity of long-term funding with low interest rates, a likely wave of selling in negative-yield bond markets may have an unfavorable impact on the global liquidity, which may indirectly affect the banking sector.

References

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Box II.1.III

The Transition from Interbank Offered Rates to Overnight Risk-Free Rates

The global financial system will take a new turn after the termination of the leading Interbank Offered Rate (IBOR) practice including the London Interbank Offered Rate (LIBOR) and the Euro Overnight Index Average (EONIA) by the end of 2021. After the global financial crisis, the rapid decrease in the number of transactions on interbank markets, on which IBORs depend, negatively affected the reliability and transparency of the IBOR as a benchmark interest rate. Moreover, it has been observed that the IBOR, which is frequently used as a benchmark in financial contracts to avoid damages from fluctuations in the general interest rates, is not effective enough since it involves the credit risk referring to the default risk of banks.¹ Upon the G20's call, international standard-setting bodies, working under the coordination of the Financial Stability Board (FSB), recommended using reliable overnight risk-free rates (RFR) based on actual transactions as the new benchmark rates in 2014.

Leading FSB countries, including Turkey, constructed the RFR in line with the recommendation of international bodies (Table II.1.III.1 and Box II.2.I).

Table II.1.III.1: Selected Overnight Risk-Free Rates

Currency	Rate	Institution in Charge	Collateral	Market
US dollar	Secured Overnight Financing Rate (SOFR)	Fed NY	Secured	Repo
Sterling	Sterling Overnight Index Average (SONIA)	BoE	Unsecured	Wholesale Rate
Japanese yen	Tokyo Overnight Average Rate (TONA)	BoJ	Unsecured	Wholesale Rate
Euro	Euro Short-Term Rate (€STR or ESTER-Euro)	ECB	Unsecured	Wholesale Rate
Swiss franc	Swiss Average Rate Overnight (SARON)	Swiss Infrastructure and Exchange	Secured	Repo
Turkish lira	Turkish Lira Overnight Reference Interest Rate (TLREF)	Borsa Istanbul*	Secured	Repo

Source: Central banks and stock exchanges of countries

*Box II.2.I. The TLREF Committee is made up of representatives from the CBRT, the Republic of Turkey Ministry of Treasury and Finance, the Banks Association of Turkey, the Turkish Capital Markets Association, Istanbul Settlement and Custody Bank, and the BIST.

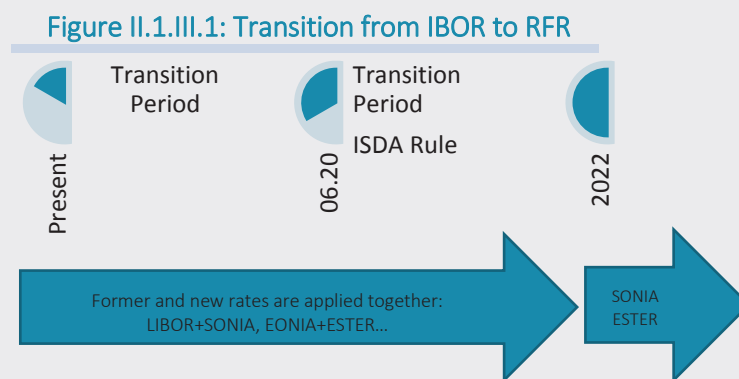
Transactions on which the RFR are based are not limited to the interbank money market; they also cover transactions of non-bank financial corporations. As in the case of the benchmark rates constructed by the US and Switzerland, the TLREF also relies on secured transactions.

¹ The flaws in the IBOR as a benchmark interest rate are discussed in detail in Box II.1.II of the Financial Stability Report 27 released in November 2018.

Legal Preparations for the Transition to RFR in Current Financial Contracts

The IBOR is used as a benchmark interest rate in a wide range of products covering a large number of financial instruments such as loans, bonds, securitization, derivatives, and deposits. In the first nine months of 2019, the interest rate derivatives (IRD)-traded notional referencing IBORs totaled approximately USD 128 trillion, which accounted for approximately 62% of total IRD-traded notional². In the same period, the IRD-traded notional referencing alternative RFRs amounted to approximately USD 6 trillion (representing almost 3% of the total).

The RFR, which was developed from 2018 to 2019 and then introduced, will be in use alongside the IBOR during the transition period that will last until early 2022 (Figure II.1.1). From then on, only the RFR will be in effect. Therefore, in financial transactions maturing after 2022, the cessation of the benchmark interest rate that constitutes one of the main terms of the contract may affect the legal validity of the transaction. This will require the parties to amend the contract or make a new one.



The International Swaps and Derivatives Association (ISDA), in coordination with the FSB, has completed the standard-setting work to eliminate any unfavorable conditions regarding financial stability during the transition process. Principle 13 of the International Organization of Securities Commissions (IOSCO) Principles of Financial Benchmarks sets forth that contracts include fallback provisions in the event of cessation of the referenced benchmark. The 2006 ISDA Definition that explains how this principle will be implemented in practice stipulates that the pricing regarding the rate to be referenced in derivatives contracts in the event of lack of an IBOR should be received from major intermediary institutions operating on the related market. On the other hand, in the event of a permanent discontinuation of the IBOR, intermediary institutions also will not be able to provide such service.

With an amendment to the 2006 Definitions made by a Supplement, the ISDA will determine the alternative RFR for derivatives transactions referencing the IBOR that are entered into on or after the date the relevant Supplement is published. For derivatives traded on organized markets, the transition to new rates will take place directly. For other derivatives transactions, the parties will have to negotiate the contract. The 2006 ISDA Definition will continue to be effective for transactions conducted prior to the date the Supplement is published. However, the ISDA will publish guiding protocols to minimize the international conflicts on such transactions.

Technical Adjustments Required by the Transition from IBOR to RFR³

The issue of pricing and valuation in direct RFR-referenced transactions both in the transition period and after 2022 is critical. Two main technical adjustments should be made to achieve the

² ISDA, Interest Rate Benchmarks Review: Third Quarter of 2019 and Year-to-September 30, 2019. <https://www.isda.org/a/OmaTE/Interest-Rate-Benchmarks-Review-Q3-2019.pdf>

³ ISDA 2018 Benchmark Fallbacks Consultation. <http://assets.isda.org/media/f253b540-193/42c13663-pdf/>

transition to the RFR in IBOR-referenced derivatives contracts: (i) term adjustment (ii) taking into account risk premiums and other factors.

(i) Term adjustment: The interbank offered rate IBOR covers different maturities: overnight, one-week, one-month, two-month, three-month, six-month, and one-year. On the other hand, overnight risk-free rates cover the overnight tenor only. ISDA, FSB and central banks of advanced economies have the opinion that derivatives contracts should be based on overnight RFRs, not term rates. In this respect, as is the case for spot transactions, derivatives transactions will also be based on the compounded setting in arrears rate. The compounded setting in arrears rate is the relevant RFR observed over a period of time covering the IBOR tenor.

(ii) Taking into account risk premiums and other factors: The overnight RFR is risk-free whereas the IBOR involves the credit risk reflecting the default risk of banks, which leads to a difference between the IBOR and the alternative RFR. This difference requires an adjustment to be made on the rate to be referred to in the transition from IBOR to RFR. For this adjustment, the historical average (or the median) of the difference between the relevant rates is calculated as of periods such as 5 years or 10 years. Then the resulting difference is added to the RFR.

The RFR obtained after these two technical adjustments is called the "adjusted RFR". This adjusted RFR will be taken into account in ISDA regulations.

Spot or Cash Transactions

There are two types of financial transactions that reference an interest rate: (i) cash transactions such as loans, bills and bonds, and (ii) derivatives transactions. As mentioned above, only the overnight RFR will be taken into account in derivatives transactions. As term LIBOR will cease in the new period and the development of the market of forward RFR-based products will take some time, the relevant term-related average of the overnight RFR will need to be calculated in spot transactions.

Comparing the simple interest and compound interest, international standard-setting bodies recommend that compound interest is preferred as it more accurately reflects the value of time from the economic and financial perspectives. Moreover, given that compound interest rate is used in overnight-rate currency swap transactions, hedging against risks will be easier in contracts based on compound interest. When adequate progress is achieved in the forward rate-based market of instruments, forward rates will also be used.

Conclusion

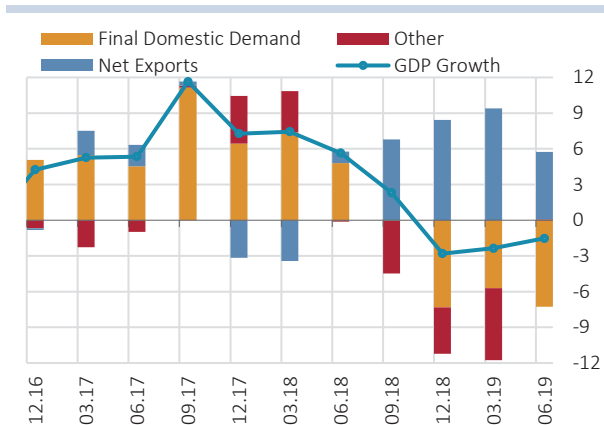
To ensure a sound transition to risk-free benchmark interest rates, common practices should be established among countries regarding the drawing up of financial contracts. This is important to be able to apply the system change to markets and products in a consistent manner, avoid mismatch between products, and prevent liquidity fragmentation in the markets.

In the Turkish banking system, LIBOR and EURIBOR are also widely used in financial transactions, particularly in syndicated loans and derivatives. It is of critical importance that banks and other financial institutions operating in Turkey effectively adapt to the new period and make the necessary preparations for the transition period so that this process is completed smoothly. Currently, TLREF rates are being announced and the TLREF-based contracts are entering into force, which will favorably contribute to this transition process (Box II.2.1).

II.2 Domestic Developments

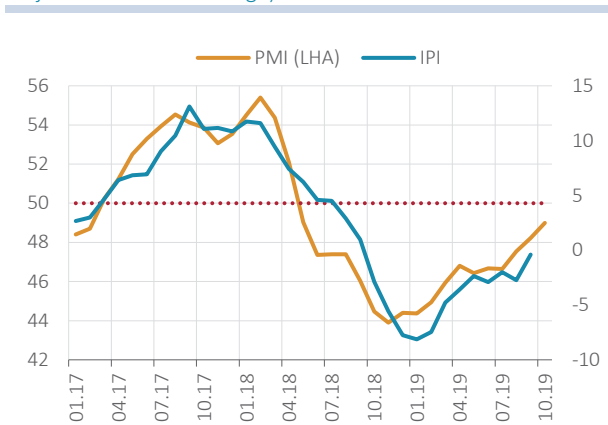
In the first half of 2019, economic activity recovered gradually and moderately. In this period, final domestic demand decreased annual growth, while net exports made a positive contribution to growth (Chart II.2.1). The recent indicators suggest that the recovery trend in economic activity continued in the second half of the year (Chart II.2.2). The improvement in financial conditions, supportive fiscal policy, the downtrend in inflation and the improvement in uncertainty perceptions all support economic activity. Nevertheless, the downtrend in economic activity, geopolitical developments and volatilities in financial markets keep downside risks to economic activity in place.

Chart II.2.1: Contribution to Annual Growth from the Expenditure Side (% Points)



Source: TURKSTAT Last Observation: 06.19

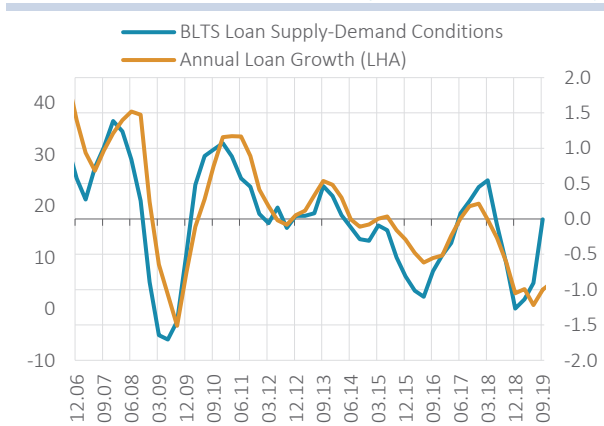
Chart II.2.2: PMI and Industrial Production Index (Seasonally Adjusted, 3- Month Moving Average, Calendar Adjusted Annual % Change)



Source: Markit, TURKSTAT Last Observation: 10.19
Note: Industrial Production Index (IPI) data is as of September 2019.

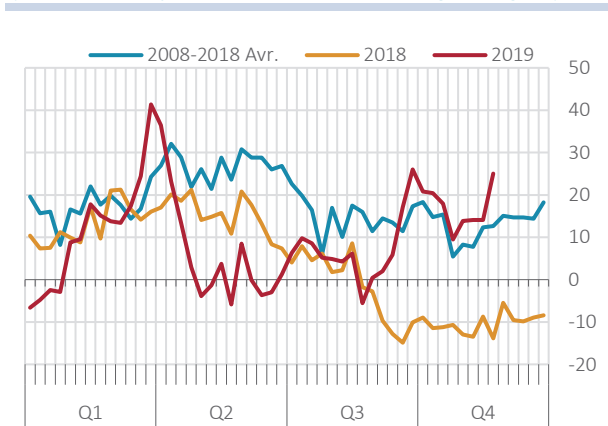
Over the recent months, there has been a rise in credit demand on the back of the recovery trend in economic activity, the decline in loan rates and the improvement in expectations. The increase in TL liquidity in the market coupled with the strong liquidity and capital structures of banks has been supporting loan supply conditions. The survey indicators of loans point to a recovery in loan supply and demand conditions in the third quarter of 2019 (Chart II.2.3). Actually, an analysis of weekly data reveals that since the end of the third quarter, loan growth has been increasing on a path consistent with historical averages (Chart II.2.4).

Chart II.2.3: Credit Conditions and Loan Growth (4-Quarter Cumulative Standardized, Adjusted for FX, Annual %)



Source: CBRT Last Observation: 09.19
Note: The credit supply-demand conditions series is the 4-quarter cumulative and standardized sum of the weighted average of banks' answers to the related questions in the Loans Tendency Survey.

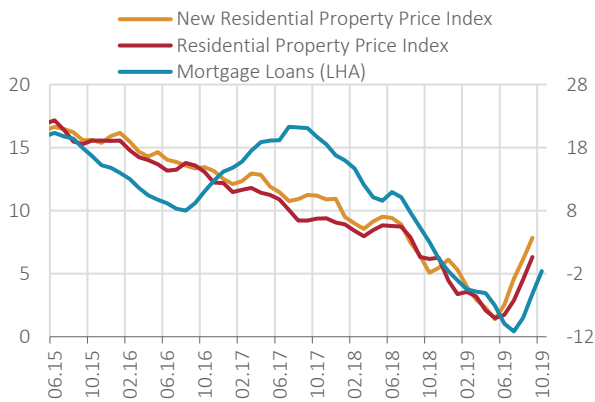
Chart II.2.4: Weekly Total Credit Developments (Annualized, Adjusted for FX, 4-Week Moving Average %)



Source: CBRT Last Observation: 15.11.19

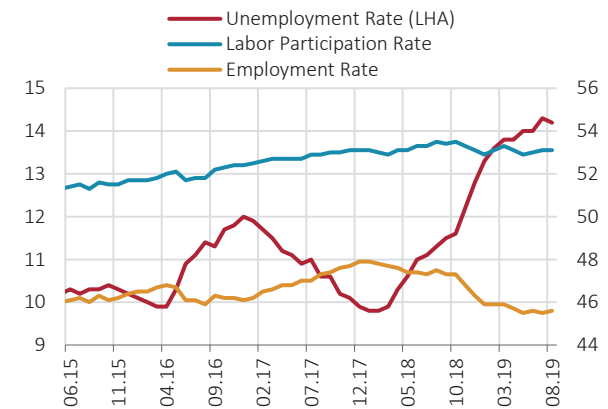
Readings on recent data point to a pickup in the housing market propelled by the campaigns led by public banks (Chart II.2.5). This pickup can support the rebound in the construction sector that had been weak for a while. The recovery in labor market is not yet observable, as the effects of the rebalancing in economic activity on labor market is generally observed with a lag. The seasonally-adjusted unemployment rate was 14.2% as of August 2019 (Chart II.2.6). If the favorable outlook in housing market continues, construction employment, which suffered a rapid contraction during the economic rebalancing process, is expected to start increasing again. The expected rise in construction employment and the recovery in industrial production are expected to make a positive effect on the labor market.

Chart II.2.5: Housing Market (Annual % Changes)



Source: CBRT Last Observation: 10.19
 Note: Housing prices are as of September 2019. Housing loan data are weekly, and data used in growth calculation is taken from the last week of the month.

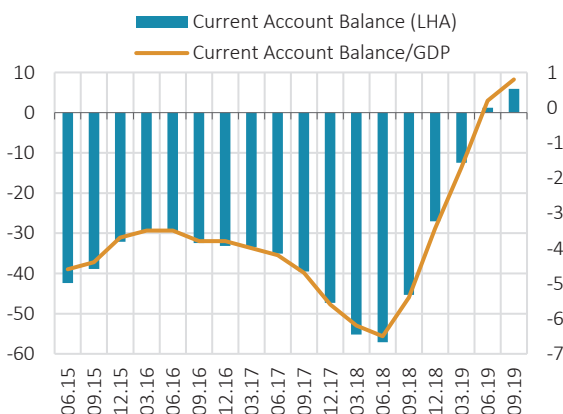
Chart II.2.6: Labor Market (Seasonally Adjusted, %)



Source: TURKSTAT Last Observation: 08.19

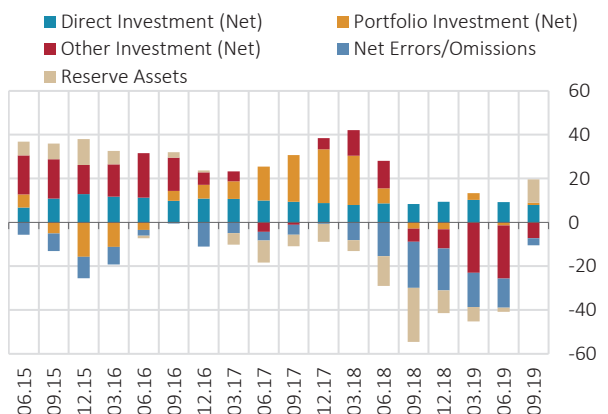
As net exports was the key driver of growth composition, recently, there has been a remarkable improvement in current account balance (Chart II.2.7). Despite the weak global growth outlook, Turkey remains competitive in international trade thanks to the supporting effect of the cumulative depreciation in Turkish lira and firms' flexibility in diversifying their export markets. An analysis of the current account deficit on the financing front, as suggested by 12-month cumulative changes, reveals that the contribution from direct investments continues; there are no net portfolio inflows; and on the other investments side, net outflows continue due to the demand-driven decrease in the debt roll-over ratios (Chart II.2.8).

Chart II.2.7: Current Account Balance (12-month Cumulative, Billion USD, %)



Source: CBRT Last Observation: 09.19
 Note: GDP series for 2019Q3 is the CBRT's estimation.

Chart II.2.8: Financing Sources of Current Account Balance (12-month Cumulative, Billion USD)

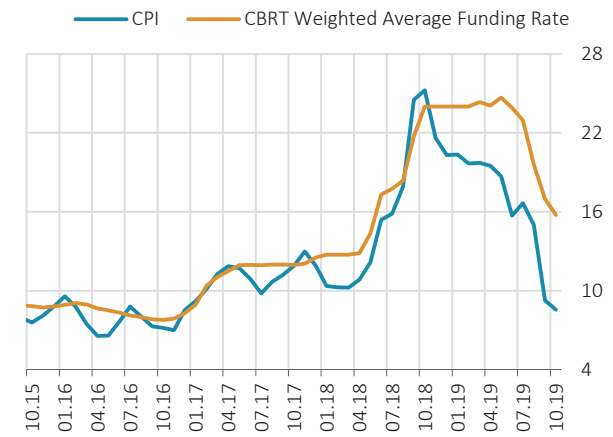


Source: CBRT Last Observation: 09.19

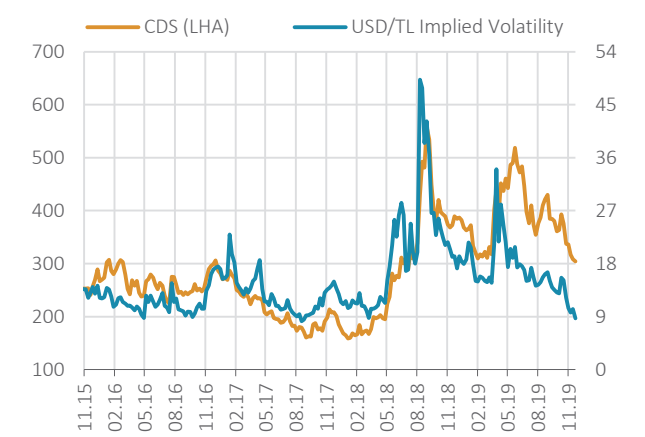
In the current Report period, the improvement in inflation outlook continued and consumer inflation came down to 8.55% by October 2019. The significant slowdown in inflation was driven by the favorable base effect from last year as well as monetary policy stance, domestic demand conditions, moderate exchange rates, developments in food and oil prices and the decline in inflation expectations. Against the backdrop of the ongoing improvement in inflation outlook, the CBRT started to cut policy rates gradually in July and decreased one-week repo rate to 14% from 24% with these rate cuts (Chart II.2.9).

Chart II.2.9: Inflation and Policy Rates (Annual % Change, monthly average %)

Chart II.2.10: CDS Premium and Exchange Rate Volatility (5-year Maturity, Basis points, 1-month Maturity)



Source: CBRT, TURSKTAT Last Observation: 22.11.19



Source: Bloomberg Last Observation: 22.11.19

Note: CPI data is as of October 2019.

Owing to the easing trend in global monetary policies, global financial conditions displayed a more positive outlook underpinning the demand for EME financial assets and the improvement in global risk appetite. Nevertheless, the protectionist trade measures, uncertainties over global economic policies led by the Brexit process and geopolitical developments cause fluctuations in portfolio flows towards EMEs. The downtrend in Turkey's risk premium and exchange rate volatility continues on the back of the cautious monetary policy stance, the improvement in macroeconomic indicators and expectations, and the moderate support from global financial conditions (Chart II.2.10).

Box II.2.I

Turkish Lira Overnight Reference Interest Rate (TLREF) and Banking Sector Practices

To meet the need for a TL short-term reference interest rate in derivative products, borrowing tools and various financial contracts, TLREF has been published daily in conformity with international standards by Borsa Istanbul (BIST) since 17 June 2019. The TLREF rate was formulated as the LIBOR interest rate will not be published as of 2021 (see Box II.1.II) and TRLIBOR, an indicator of the current unsecured borrowing rate, is not used by banks effectively.

In the formulation and development of TLREF, the CBRT was involved in the studies with other stakeholder institutions. Primarily with respect to secured borrowing, to contribute to the transaction volume and the number of participants in the repo market, the CBRT removed the difference in reserve requirement practices between the BIST Repo-Reverse Repo Market and Interbank Repo-Reverse Repo Market. Then, BIST united these two repo markets and constructed one repo market, which allows the involvement of not only banks but also other financial institutions and which has a quite high transaction volume. In addition, the CBRT has a representative on the TLREF Committee to participate in technical issues and continues to support TLREF's fields of development.

The TLREF rate is calculated by overnight repo transactions realized at the BIST Repo-Reverse Repo Normal Orders Market with the starting value date of the same day and that are secured only by TL-denominated Government Domestic Debt Securities (GDDS) (BIST, 2019a). Stages of calculation are defined below:

- 1- Transactions are ranked from smallest to largest according to the interest rate.
- 2- Cumulative transaction volumes are calculated.
- 3- Transactions with the lowest and the highest interest rates that constitute 15% of the total transaction volume are excluded.
- 4- The remaining transactions which make up 70% of the transaction volume are weighted according to their volumes and the calculated interest rate is announced as the TLREF rate.

In this way, TLREF is a reference interest rate based on high liquidity-secured repo transactions, focused on the market. The calculation method, the details of which are given above, also resembles international practices. Moreover, to exclude extreme values from the observation in calculation, various sensitivity tests were conducted over the past data.¹ In addition, to remain cautious against extraordinary situations, there are two exceptional cases in which the TLREF can be determined by the TLREF Committee (Committee):

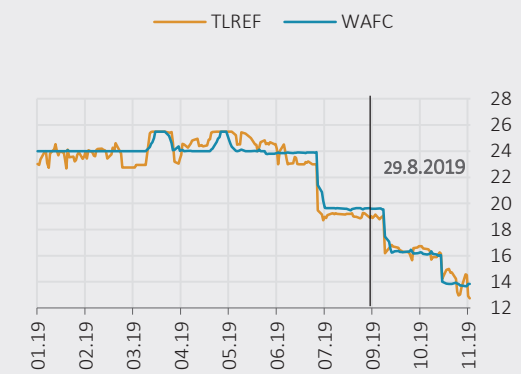
- 1-The above-mentioned calculation method shall not be used if at least one of the following appear: the total volume of the eligible transactions being below TL 5 billion; the total number of eligible transactions being below 5; or the total number of counterparties remaining below 5. Then, the TLREF rate will be determined as the level of the Weighted Average Cost of the CBRT Funding rate (WAFRC) plus the mean of the spread of the TLREF to WAFRC over the previous five publication days. If expectations for insufficient data increase, the Committee may decide according to the following article:

¹ The Committee is made up of representatives from the CBRT, the Republic of Turkey Ministry of Treasury and Finance, the Banks Association of Turkey, the Turkish Capital Markets Association, İstanbul Settlement and Custody Bank and BIST.

2- Any member of the Committee, who has the opinion that the TLREF rate, which is based on the overnight repo rate in the Borsa Istanbul Repo-Reverse Repo Market, does not in any way reflect the effective overnight borrowing / lending interest rate due to CBRT's monetary policy practices or other reasons, shall promptly express this opinion to the Committee. The Committee evaluates the reasoning of the member and adopts the TLREF rate generated by the above-mentioned methodology, or adopts and announces a new rate representing the effective overnight borrowing / lending rate as TLREF rate.

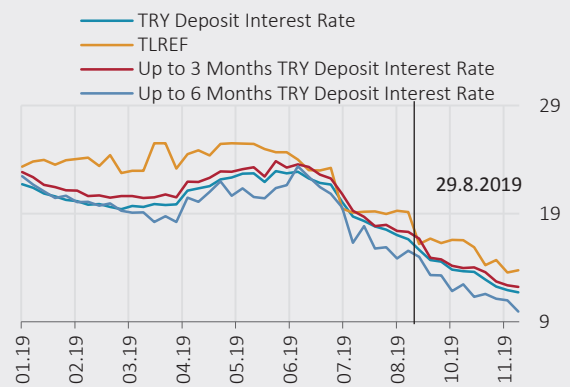
TLREF rate has been calculated by the above-mentioned method and published since 17 June 2019.² TLREF has been used effectively since 29 August 2019. Before that date, the rate was calculated also by backward estimations to track the development of the data as well as the healthy price formation in the market. Considering the date of its effective use, the TLREF rate remains close to the WAFC (Chart II.2.1.1). As this depends on the monetary policy transmission mechanism and the transaction volume, TLREF may be effective given its potential to be the reference variable interest rate in transactions. However, if the TLREF rate stays above interest rates on TL deposits, use of this rate in financial instruments to be issued by banks boosts investor appetite in particular (Chart II.2.1.2).

Chart II.2.1.1: TLREF and WAFC Interest Rates (Daily, %)



Source: CBRT. Last Observation: 15.11.19

Chart II.2.1.2: TLREF, Weighted Average, Flow TL Deposit Interest Rates up to 3 and 6 Months (Weekly, %)



Source: CBRT. Last Observation: 15.11.19

Various financial institutions started TLREF-based bond issues at various maturity caps as of 29 August 2019. Details regarding the TLREF-based borrowing tool issues made by the financial sector as of 15 November 2019 are summarized in Table II.2.1.1 and TLREF-based total borrowing tool issue reached approximately TRY 13 billion. Meanwhile, currently some banks also offer TLREF-indexed commercial products.

² However, the BIST website accommodates the historical data on the TLREF interest rate starting from 28 December 2018.

Table II.2.I.1: Information on Issues of TLREF-based Debt Tool Issues

Bank	Issue Date	Maturity (Day)	Sum (TRY million)
Ziraat Bank	29.8.2019	364	750
Alternatif Bank	29.8.2019	728	50
Vakıflar Bank	3.9.2019	182	500
Halk Bank	4.9.2019	175	480
Halk Bank	4.9.2019	350	170
Denizbank	4.9.2019	182	500
Halk Bank	6.9.2019	105	290
Vakıflar Bank	6.9.2019	179	100
Ziraat Bank	6.9.2019	182	1000
Garanti Bank	10.9.2019	93	975
Halk Bank	10.9.2019	350	134
Denizbank	11.9.2019	182	170
Fibabank	11.9.2019	182	179
Vakıflar Bank	11.9.2019	174	75
İş Bank	12.9.2019	175	700
Aktif investment Bank	13.9.2019	105	35
Finansbank	13.9.2019	182	191
Vakıflar Bank	13.9.2019	179	1085
Yapı ve Kredi Bank	13.9.2019	175	560
Deniz Financial Leasing	16.9.2019	116	250
Halk Bank	20.9.2019	1820	130
Ziraat Bank	20.9.2019	182	500
Yapı ve Kredi Bank	20.9.2019	175	844
Finansbank	20.9.2019	95	69
Fibabank	23.9.2019	184	50
Halk Bank	27.9.2019	182	100
Vakıflar Bank (SD)	27.9.2019	3640	725
Yapı ve Kredi Bank (SD)	3.10.2019	3640	300
Garanti Bank (SD)	9.10.2019	3651	253
Halk Bank	6.11.2019	728	605
Halk Bank	5.11.2019	182	722
Halk Bank	7.11.2019	350	211
Halk Bank	15.11.2019	182	300

Source: PDP, BIST.

Note: SD denotes subordinated debts.

The Role of TLREF in Asset-Liability Management

Wide use of reference interest rates in finance markets increases the liquidity of the currency on which the interest rate is based, and contributes to the reduction in financing costs in the respective currency by alleviating the uncertainty regarding the interest rate. Moreover, investors willing to take position in this currency may be oriented towards longer term positions in line with the declining interest rate uncertainty. This supports the maturity risk management of intermediary agencies and banks in financial markets.

In Turkey, historically, access to TL funding with 5 years and longer terms has remained rather limited both for corporate sector firms and individuals and the finance sector. In the periods of increased and prolonged uncertainty over inflation and exchange rates, this access becomes more challenged. In such periods, as projecting the long-term level of market rates gets harder, investors providing banks with TL funds do not prefer long term positions over the current interest rate or they demand high premiums for long-term funding. In such an environment of limited access by banks to TL-denominated long-term funding, facilities to channel TL funding sources to long-term loans are also contracting. In other words, banks willing to extend long term TL loans face the risks of interest rate and maturity as the funding side is short term.

With a macroeconomic perspective, sustainable growth of economic activity and employment is enabled by investments, and sustainability of investments is enabled by long-term financing resources. However, due to these reasons and the increased global liquidity following the global crisis, extension of FX loans for long term investment projects has become prevalent in the Turkish banking sector. Firms willing to make investments demanded FX loans due to lower interest rates, and banks met these demands thanks to the easy access to long term FX funding.

Long-term TL loans needed for financing of firms' investments do not carry exchange rate risk, but accommodate maturity and interest rate risk for banks. The banking sector, transform their current FX resources into long-term TL funding through swap transactions in derivative markets abroad, and can create long-term TL resources. However, these transactions may strengthen the dollarization trend, elevate banks' funding costs and display volatilities depending on the external liquidity conditions and foreign investors' appetite for positioning in TL.

An alternative financial instrument enabling banks to manage TL interest rate risks without needing foreign exchange is TL-denominated interest rate swap transactions. Thanks to this product, without exchanging the principal amount, banks exchange their fixed interest rate payments over a certain amount of principal with variable interest rate payments over the same amount of principal.³ A significant point in such transactions is the setting of the variable interest rate in a reliable and liquid financial market. In this respect, the TLREF rate is expected to assume a significant reference role for variable interest rates in the mentioned interest rate swap transactions. A transparent and reliable reference rate derived from the transactions at the interbank repo market will facilitate the pricing of these interest rate swap transactions in line with market conditions, provide consistency in practices and boost the liquidity of the

³ For example, assume that in a five-year swap contract with a premium of TRY 100 million, the fixed rate pillar is 10% per annum and the variable rate is "A%". As per this contract, the Bank will pay a fixed TRY 10 million to the counterparty per annum, and will receive TRY A million in exchange whose exact amount varies according to market conditions. Thereby, the Bank that pays in varying interests for funding such as short-term deposits, will hedge against the interest rate risk and attain funding over a fixed rate for five years. Banks, which pay varying interest payments to depositors depending on market conditions due to the short-term structure of TL deposits, will be able to hedge against the interest rate risk by converting these rates into a fixed rate. The bank that has converted funding into fixed rate will have an increased appetite for extending long-term TL loans.

instrument in derivative markets. As a growing number of banks engage in interest rate swap transactions in a liquid market, their potential to extend long-term TL loans will also increase. Moreover, dollarization and high funding costs, which are possible side effects of currency swaps, will not appear in interest rate swap transactions priced at TLREF. As TLREF-based swap transactions become a common practice, TL/FX currency swap transactions performed particularly with non-resident financial institutions to hedge their interest rate risks, are expected to decline. (BIST, 2019b). This is expected to contribute to deepening in domestic markets of such instruments. In this respect, the start of quoting by banks for TLREF-based Overnight Index Swap (OIS) market in November 2019, stands out as a significant development. In the upcoming period, the improvement of this market will provide a notable room for banks' interest rate risk management, and it will also indirectly contribute to the interest rate risk management in the bonds market.

In addition to the advantages that TLREF provide on the funding side of banks, TLREF also constitutes a reference rate for corporate sector firms asking for long term and variable rate loans. When variable rate loans have a reference rate, this boosts the depth and foreseeability of the variable rate loan market and supports corporate sector's access to long-term TL finance. The reference interest rate will increase the depth and diversity of financial instruments and corporates will be able to issue bonds at reliable and floating interest rates set under liquid market conditions. Corporate sector firms with variable rate liabilities will be able to hedge against the interest rate risk by making use of the TL interest rate swap market which will develop as a result of the TLREF. Besides, thanks to TLREF-indexed financial tools, individual investors will be able to take longer term TL positions instead of the short-term TL deposit and FX deposit accounts which they hold as a hedge against the interest rate and exchange rate risk. This may affect the depositors' currency preferences and reduce the tendency for dollarization.

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