Bahçeşehir Üniversitesi
Ekonomik ve Toplumsal Araştırmalar Merkezi
Betam

Economic Growth and Forecasts: September 2022

BAHÇEŞEHİR ÜNİVERSİTESİ

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Growth Decelerates

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Executive Summary

In light of fully-released July and partly-released August leading indicators, we expect GDP to expand by 3.9 percent on a year-on-year basis for the third quarter of 2022. According to seasonal and calendar-adjusted data, we forecast quarter-on-quarter GDP growth to be -0.7 percent.

Thus, we expect the positive quarterly growth trend since the pandemic shock in the second quarter of 2020 to be replaced by a contraction. We expect the annual growth, which was constantly above 5 percent in the same period, to decrease slightly. International organizations such as the OECD and the World Bank revised their 2022 growth forecasts for Turkey upwards in their latest forecasts.

GDP growth forecasts	2022Q3
Quarter-on-quarter	-0.7
Year-on-year	3.9

Table 1: Periodical and annual real GDP growth forecasts. Source: Betam. **NOTE:** "Quarter-on-quarter" growth rate refers to seasonally and calendar-day adjusted real GDP growth forecast; "Year-on-year" growth rate refers forecasted real GDP growth compared to the same quarter of the previous year.

Decrease in industrial production

In the third quarter of 2022, we estimate a decrease of 4.5 to 6.5 percent in industrial production indices compared to the previous quarter. While the special consumption tax, which increased very strongly in the previous quarter, decreased slightly this quarter, we calculate an increase of around 7 percent in public consumption expenditures. (Table 2).

When compared to the same quarter of the previous year, the decrease in production and credits is seen much more clearly. The production index of non-durable goods decrease by 7 percent and the production index of durable goods decrease by 15 percent. While both housing and consumer loans fall sharply on an annual basis, imports of consumer goods increase by more than 20 percent. (Table 3).

	2022Q2	2022Q3
Imports-cons. goods	8.1	2.9
Mortgage loans	-7.8	-0.7
Consumer loans + CC	-5.6	1.2
IPI-nondurable goods	2.3	-4.5
IPI-durable goods	-2.1	-6.5
Special cons. tax	18.7	-1.4
Public cons.	0.8	6.9

Table 2: Consumption expenditures compared to the previous quarter. **IPI:** Industrial production index; **Cons.:** Consumption tax; **CC:** Credit Cards.

	2022Q2	2022Q3
Imports-cons. goods	6.5	21.8
Mortgage loans	-31.7	-29.6
Consumer loans + CC	-25.3	-24.2
IPI-nondurable goods	17.9	-7.1
IPI-durable goods	5.9	-15.4
Special cons. tax	19.9	10.9
Public cons.	-1.2	9.3

Table 3: Consumption expenditures compared to the same quarter of the previous year.

Increase in public investment expenditures

According to seasonally and calendar-adjusted data, we expect a decrease of more than 5 percent in the intermediate goods production index and production expectations in the third quarter of 2022 (Table 4).

On an annual basis, the decrease in production indicators draws attention. While strong declines are expected in commercial loans and credit cards, there are strong signs of an increase in investment goods imports, stock levels, and public investment expenditures (Table 5).

	2022Q2	2022Q3
IPI-inter. goods	-0.6	-5.4
CUR-invest. goods	-0.7	2.1
Imports-invest. goods	0.8	5.0
Commercial loans + CC	-4.9	0.4
Prod.-last 3 months	-3.9	-5.3
RT vol. of stock	-0.4	0.9
Public invest.	24.9	-2.9

Table 4: Investment expenditures compared to the previous quarter. **CUR:** Capacity Utilization Rate.CUR is reported as percentage points changes unlike other indices; **RT vol. of stock:** Current volume of stock of retail trade sector; **Invest.:** Investment.

	2022Q2	2022Q3
IPI-inter. goods	7.2	-12.0
CUR-invest. goods	2.7	2.7
Imports-invest. goods	5.7	23.6
Commercial loans + CC	-23.1	-18.9
Prod.-last 3 months	-2.5	-8.4
RT vol. of stock	17.6	20.6
Public invest.	13.2	15.8

Table 5: Investment expenditures compared to the same quarter of the previous year.

Import increases

In the third quarter of 2022, we expect a 2.1 percent increase in exports and a 1.7 percent increase in imports when we look at the seasonal and calendar-adjusted foreign trade figures excluding gold. On the other hand, there is a decrease of 4.4 percent in total exports (Table 6).

Compared to the same quarter of the previous year, exports excluding gold increase slightly, while total export decrease by nearly 8 percent. When we add a 4 percent increase in imports to this, we see that the developments in the third quarter of 2022 are in opposition to the foreign trade balance (Table 7).

	2022Q2	2022Q3
Exports	3.8	-4.4
Imports	-0.5	1.7
Exports excluding gold	2.8	2.1
Imports excluding gold	-0.4	1.7

Table 6: Foreign trade compared to the previous quarter.

	2022Q2	2022Q3
Exports	6.5	-8.0
Imports	2.3	4.1
Exports excluding gold	17.2	0.8
Imports excluding gold	0.7	0.3

Table 7: Foreign trade compared to the same quarter of the previous year.

General Evaluation

Considering the other seasonal and calendar day-adjusted leading indicators we use in GDP forecasting, we calculate a decrease of 3 percent in electricity consumption and 5 percent in the manufacturing sector production index (Table 8).

When compared to the same period of the previous year, the stagnation in the demand for the service sector is salient. The decrease in electricity consumption and the decrease of up to 10 percent in manufacturing industry production is also not a good sign (Table 9).

In light of fully-released July and partly-released August leading indicators, we expect GDP to expand by 3.9 percent on a year-on-year basis for the third quarter of 2022. According to seasonal and calendar-adjusted data, we forecast quarter-on-quarter GDP growth to be -0.7 percent.

	2022Q2	2022Q3
IPI-manufacturing	1.3	-5.3
RT price exp.	1.9	1.2
CUR	0.1	0.2
Ser. demand turnover	-0.1	1.0
Expected invest.-12m	3.0	-2.8
Electricity cons.	-4.1	-3.1

Table 8: Some of leading indicators compared to the previous quarter. **RT price exp.:** Expected price for the retail sector (next 3 months); **Ser. demand turnover:** Demand for services (last 3 months), **Expected invest.-12m:** Investment expectations (next 12 months) ;**Expected invest.-12m:**: Investment expectations (next 12 months)

	2022Q2	2022Q3
IPI-manufacturing	12.3	-9.1
RT price exp.	8.0	6.3
CUR	1.9	0.9
Ser. demand turnover	15.2	0.9
Expected invest.-12m	6.1	2.0
Electricity cons.	1.2	-4.5

Table 9: Some of leading indicators compared to the same quarter of the previous year.

BOX: EXPLANATIONS

Explanation on seasonal and calendar day adjustment:
While forecasting the quarter-on-quarter GDP growth rate, we adjust all series for seasonal and calendar day effects. If institutions release an adjusted series, we use this released adjusted series, and if not, BETAM performs seasonal and calendar day adjustments. The status of variables used in this brief can be summarized as follows:

- Central Bank of the Republic of Turkey (TCMB): Capacity utilization rate of the manufacturing industry (CUR), Real sector confidence index.
- Turkstat (TUIK): Industrial production index (IPI) and its sub-components; export, import, and import sub-components concerning goods categories (intermediate goods, investment goods, and consumption goods); sectoral confidence indices and its components (retail trade, services, and construction sectors)
- Betam: The rest of the leading indicators.

Explanation on leading indicators: Betam shares three forecasts for each quarter. For some indicators of the quarter, of which the growth rate is forecasted, the last two months' observations and for others' last month's observations are missing when we run the forecasting model. While estimating growth rates of leading indicators, we use forecasts based on previous observations of each series for missing months. Since there are no missing monthly observations in series while running the third forecast, there is no need for this forecast.

Explanation on forecasting model:
For the direct forecast of GDP, we use 16 leading indicators. While forecasting the components of GDP (consumption, investment, export, and import), we use 26 leading indicators. We prefer to represent remarkable variables within the current period and success in the forecast instead of representing all of them in the research brief and tables.

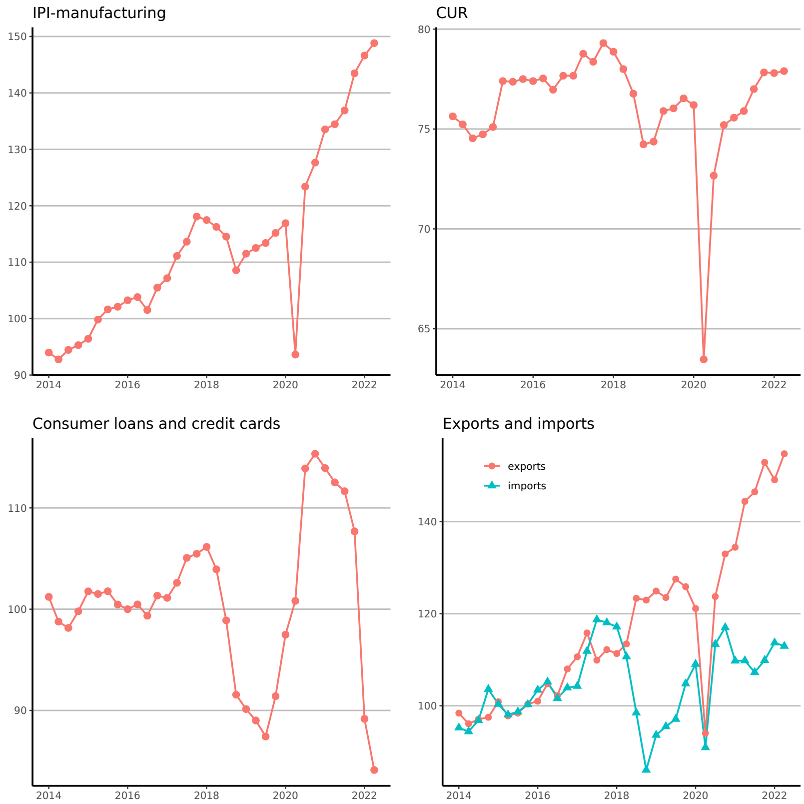

Figure 1: Seasonally and calendar day adjusted quarterly leading indicators. Consumer credits and individual credit cards in the first quarter of 2016 are indexed at 100.