Chapter 2

Aggregate Activity: GDP and Employment

- The Swords of Iron War impaired economic activity in many ways. It caused labor supply to contract, dealt the construction, agriculture, and tourism industries a severe blow, and dampened demand for consumption and investment. Accordingly, output contracted in the fourth quarter by 5.6 percent (20.7 percent in annual terms), reducing growth in 2023 to a mere 2 percent.
- Until the beginning of the war, the economy operated in a full-employment environment, limiting growth to a rate slightly below the long-term average after rapid GDP growth in 2021–22.
- The Bank of Israel raised its interest rate in view of above-target inflation and the full-employment environment. This, as expected, restrained demand for private consumption, first and foremost by raising the price of credit and, in particular, of interest payments for holders of variable-rate housing loans.
- Due to the strong activity and the tight labor market that prevailed until the war, investment and capital stock grew despite the increase in the interest rate.
- The current-account surplus remained stable in the first three quarters, namely before the war. Currency depreciation evidently helped reduce the demand for imports of consumer and investment goods, as well as the profitability and growth of exports. Conversely, income from exports of transport services declined by $4 billion due to a decrease in maritime transport tariffs, offsetting the effect of the depreciation on the current account.
- After the war erupted, imports declined steeply due to falling domestic demand. Exports declined more moderately, centering on the decrease in tourism. Thus, the current-account surplus grew vigorously in the fourth quarter of the year.

1. MAIN DEVELOPMENTS

GDP grew by 2.0% in 2023—at a 3.8% pace prewar and at a negative rate later on.

Gross Domestic Product increased by 2.0 percent in 2023. The year was divided into two parts—before the Swords of Iron War and after the war erupted on October 7, 2023.[1] In pre-war 2023, the economy grew at slightly slower rate than the multiyear Israeli average, with GDP 3.8 percent higher in the first three quarters of the year than in the corresponding period in the previous year (Table 2.1), due to swift growth at the end of 2022. However, in none of the early quarters of 2023 did the annualized growth rate exceed 3.0 present. The tight labor market was manifested in accelerated wage growth, and investment increased faster than GDP. The legislative changes that the government promoted triggered widespread public protests and were accompanied by continued shekel depreciation, including in real terms, and underperformance in the financial markets. The inflation rate, which was 5.4 percent at the beginning of the year, moderated during the year, but the Bank of Israel had to raise its interest rate to 4.75 percent in order to bring this about. During the war, in contrast, growth—especially of the business sector—was negative, the unemployment rate rose to 8.5 percent, private-consumption and investment demand contracted steeply, exports slumped, primarily in tourism, and only public consumption increased strongly due to war-related spending. In the course of the quarter, some areas of activity recovered perceptibly.

Aggregate supply continued to grow until the war broke out. Labor market indicators were strong and capital stock increased rapidly.

Aggregate demand continued to increase until the war began. Labor-force participation and employment rates for the main working-age population climbed in pre-war 2023 to 81.5 percent and 79.0 percent, respectively (as against 80.4 percent and 77.7 percent in 2019, and 81.2 percent and 78.6 percent in 2022). The unemployment rate in the prime working age bracket declined to 3.1 percent and the factor utilization rate in manufacturing oscillated around 84 percent (similar to the rate in 2022 and slightly higher than before the COVID-19 crisis), attesting to the full-employment environment. Business-sector capital stock continued to increase, doing so at even a quicker pace than in recent years. This increase, which was due to growing demand and strong utilization of existing factor inputs, allowed the economy's production capacity to grow.

Aggregate demand grew more slowly in prewar 2023 than in the previous two years.

Aggregate demand rose in pre-war 2023 at a slower rate than in the previous two years, largely due to the increase in the interest rate and the weak performance of global trade. In particular, private consumption grew at a very slow pace and was the main component that attenuated output growth; per-capita consumption actually contracted. The aforementioned slowing of demand amid continued expansion of supply narrowed demand surpluses in a measured manner that nevertheless sufficed to support the slowing of inflation (Chapter 3).

The eruption of war dealt economic activity a severe blow. In the first few weeks, economic activity was low countrywide. The war caused direct harm to agriculture (in

[1] The prewar part of the year ("pre-war 2023") discussed in this chapter is the first three quarters of 2023. Growth during that time is measured relative to the corresponding period a year earlier. The wartime part of the year for the purposes of this chapter is the fourth quarter.

the Gaza area and in the north due to the evacuation of civilian population), construction (due to closure of construction sites by local authorities), and tourism. The war also impacted labor supply considerably in several ways: The full or partial shutdown of the education system in October forced many parents to stay home with their children; Palestinian workers did not enter Israel; some foreign workers temporarily left the country due to fears for their security; and the massive and extended mobilization of military reserves reduced the labor supply available to the business sector.

Economic activity decreased markedly during the war. Labor supply contracted and construction, tourism, and agriculture were badly hit.

Table 2.1
Selected indicators of economic activity, 2007–2023

(annual change, percent)

	2007–2022[a]	2019	2020	2021	2022	2023	2023:Q1–Q3[b]
GDP	3.9	3.8	-1.5	9.3	6.5	2.0	3.8
Per capita GDP	2.0	1.8	-3.2	7.6	4.4	-0.1	1.5
Domestic uses	4.2	4.1	-2.7	10.7	7.4	-0.1	2.2
Unemployment rate (ages 25–64, level)	5.0	3.4	3.8	4.6	3.3	3.0	3.1
Broad unemployment rate (ages 25–64, level)	5.9	3.4	13.2	7.5	3.6	4.4	3.4
Real wage per employee post	1.3	2.0	7.5	0.7	-1.5	2.0	1.2
Current account surplus (percent of GDP)	3.3	3.4	4.9	4.0	3.9	5.0	3.9
Real effective exchange rate[c]	-2.2	-2.5	-3.1	-3.9	-0.8	9.4	8.9

[a] Average of the past 15 years.
[b] The level during this period or the rate of change vis-à-vis the same period in the previous year in annual terms, as relevant.
[c] An increase means depreciation.
SOURCE: Based on Central Bureau of Statistics.

2. BACKGROUND CONDITIONS

The most impactful event of the year for the macroeconomic environment was the eruption of the Swords of Iron War on October 7, when Hamas invaded Israel in a murderous terror attack and Israel responded by declaring war. That and the concurrent opening of fire on northern Israel by Hezbollah led to the lengthy evacuation of inhabitants of the Gaza area (the "Gaza envelope") and the northern border localities, closure of schools in the center and south of the country for most of October, mobilization of hundreds of thousands of army reservists, cancellation of most incoming and outgoing flights, and additional disruptions of economic activity.

The most meaningful event for the macroeconomic environment in 2023 was the eruption of the war.

The background conditions that affected the economy until the war broke out gave evidence of an economy undergoing a "soft landing" process. At the end of 2022, the economy was already operating in a full-employment environment after rapid growth in 2021–22. Brisk demand and a full-employment environment that ordinarily reduces growth rates are likely to push inflation rates up. Inflation abroad and in Israel began to increase in 2021. Accordingly, the Bank of Israel raised its interest rate swiftly, from 0.1 percent at the beginning of 2022 to 4.75 percent in August 2023, causing the real rate to climb from 1.7 percent at the beginning of 2022 to 2.3 percent in May 2023, in order to restrain demand and inflation.

From 2022 until the onset of the war, the economy was in a "soft landing" process. Inflation rose, and the Bank of Israel raised its interest rate in order to restrain demand and, in turn, inflation.

World trade grew slowly in 2023.

In addition to these developments, several global shocks restrained global and domestic growth rates, including supply-chain problems in 2020 and 2021 and commodity-price shocks precipitated by Russia's invasion of Ukraine in 2022. Growth of global trade slowed in 2023 relative to most previous years and trade in goods actually contracted (IMF WEO January 2024). Growth in advanced economies decelerated in 2022 and again in 2023. Inflation spiked in 2022 and began to retreat slowly in 2023. Interest rates rose steeply in 2022.

From the beginning of 2023 to the eruption of the war, a grave political and social crisis unfolded pursuant to legislative changes relating to the judiciary that the government was promoting.

Economic background conditions aside, the Israeli economy was embroiled in pre-war 2023 in a grave political and social crisis. In early 2023 the government acted to introduce major legislative changes relating to the judiciary, triggering broad public opposition that continued until the war began. These processes were reflected in the acceleration of the nominal and real depreciation that had begun in the middle of 2022, underperformance of the capital market, expressions of concern among credit agencies and international economic organizations, and the souring of business sentiment, particularly in high tech.

3. SOURCES AND USES

Until the war, GDP grew at a 3.8% pace and economic activity was output-oriented.

On the sources side, from the beginning of 2023 until the war erupted, GDP increased at a 3.8 percent pace, reflecting slow convergence to the potential growth rate in view of the full-employment environment and monetary tightening. This growth rate was higher than the pace derived from the long-term trend (Table 2.2). Economic activity was output-oriented in that the share of imports in sources for the economy decreased, perhaps under the influence of currency depreciation that made imports more expensive.

Table 2.2
Sources and uses, 2007–2023

(annual change, percent)

	2007–2022[a]	2019	2020	2021	2022	2023	2023:Q1–Q3[b]
GDP	3.9	3.8	-1.5	9.3	6.5	2.0	3.8
Imports (excluding ships, aircraft, diamonds, and defense imports)	5.4	3.5	-7.0	18.7	12.4	-7.2	-4.1
Uses of the economy's sources	4.2	3.8	-2.9	11.6	7.6	0.1	2.0
Domestic uses	4.1	4.1	-2.7	10.7	7.4	-0.1	2.2
of which: Private consumption	4.0	4.0	-7.4	11.5	7.4	-0.8	1.7
Fixed capital formation (excluding ships and	4.5	4.1	-1.9	14.1	10.7	-3.1	5.4
Investment in inventory (excluding diamonds and startups, percent of GDP)	0.4	0.2	0.0	0.0	0.2	0.1	0.1
Output of startup companies	5.8	30.7	12.1	33.1	22.3	-23.3	-14.6
Public consumption (excluding defense imports)	2.9	2.8	2.5	4.6	1.0	7.2	2.2
Exports (excluding diamonds and startups)	5.9	4.2	0.6	12.2	9.7	0.3	2.1

[a] Average of the past 15 years.

[b] The level during this period or the rate of change vis-à-vis the same period in the previous year in annual terms, as relevant.

SOURCE: Based on Central Bureau of Statistics.

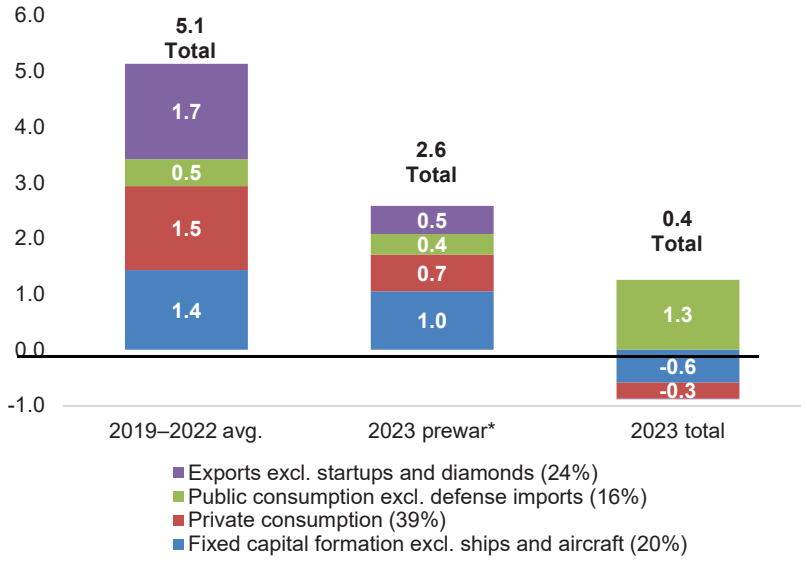
Only investment, accounting for 20% of uses, increased rapidly.

On the uses side, only investment, accounting for 20 percent of uses, grew rapidly, contributing to the above-trend rate of GDP growth, and by itself accounted for half of the increase in uses during this time (Figures 2.1, 2.2),). Another contributing factor was exports, which grew slowly during this time as part of a global slowing trend but remained strong. Private consumption and public consumption grew slowly and moderated GDP relative to its trend, against the background of slow cumulative growth of both indicators in previous years.

In 2023:Q4, the wartime quarter; GDP contracted by 5.6% and most uses plunged; only public consumption increased and did so rapidly.

After the war broke out, developments took a sharp turn.[2] Most uses decreased very steeply in the fourth quarter. Public consumption, in contrast, ballooned in this quarter by 17.7 percent and took the place of some of the other uses. Part of this substitution traced to the transition of factor inputs and demand from the private sector to the public sector, including wage payments to army reservists and payments to hotels for evacuees, and another part originated in increased government demand, including for military and civilian procurement from domestic industry. As a result, business sector output declined in the fourth quarter by a steep 9.8 percent rate whereas total output declined at a more moderate 5.6 percent pace due to an 11.2 percent increase in public-services output.

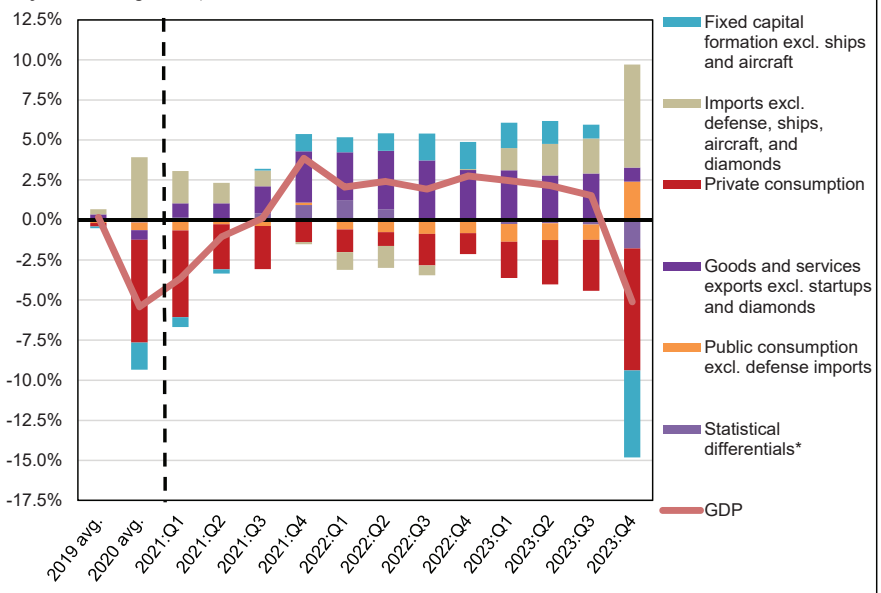
Figure 2.1
Changes in the Uses of the Economy's Sources between 2019 and 2023, and in 2023 Until the War[a] (percent)



[a] One percent of uses in 2023 equals about NIS 20.5 billion.
* Relative to the same period in the previous year.
The numbers in parentheses are the distribution of uses in 2022.
SOURCE: Based on Central Bureau of Statistics.

2 This subsection presents quarterly rates of change in quarterly terms, unlike the rest of the chapter, in which rates of change are expressed in annual terms.

Figure 2.2
GDP Deviation from its Pre-COVID Trend and Accounting Contribution of the Main Uses and of Imports[a], 2019–2023 (2019–20 - annual, 2021–23 - quarterly, seasonally adjusted data, percent)



[a] When imports are below the trend, the contribution to GDP is positive.
* Asjustments to unincluded componentgs and to the connection of seasonally adjusted data with different seasonalities.
SOURCE: Based on Central Bureau of Statistics.

4. USES

a. Private consumption

Private consumption grew by only 1.7% before the war, mainly due to lethargic growth of services consumption.

Private consumption increased in pre-war 2023 by only 1.7 percent (a decline of 0.5 percent in per-capita terms) and the gap between its level and that expected in accordance with its long-term growth—resembling that of GDP (Table 2.2)—steadily widened (Figure 2.3, Table 2.3). The combination of this sluggish growth and real shekel depreciation was manifested in a decline in imports of consumer goods from the middle of 2022 onward. The depreciation appears to have strongly affected the decrease in consumption of durable and semidurable goods because most of them are imported. Unlike the decline in goods consumption, which followed rapid growth, consumption of services contracted steeply during the COVID-19 crisis and recovered only in part. Consumption of transport services (especially foreign travel by air); art, entertainment, and leisure services; and restaurant and hospitality services remained far below what would be expected in accordance with their long-term growth trajectory.

Table 2.3
Domestic demand: Background conditions and main indicators of its development, 2007–2023

(annual change, percent)

	2007–2022[a]	2019	2020	2021	2022	2023	2023:Q1–Q3[b]
Private consumption	3.6	4.0	-7.4	11.5	7.4	-0.8	1.7
of which: Consumption excl. durables	3.4	4.0	-8.0	10.7	7.2	-0.2	1.8
Semidurables consumption	5.8	4.4	-3.7	30.1	2.4	-12.4	-9.2
Services consumption	3.2	4.3	-23.1	16.3	15.9	-0.5	4.3
Durable goods consumption	5.8	4.3	-0.5	19.2	9.2	-6.8	-1.4
Gross private disposable income from all sources	4.1	5.0	5.6	3.9	4.3	5.8	8.6
Credit to households	7.4	5.2	4.4	8.4	14.9	5.5	6.4
of which: Nonhousing credit	5.8	2.3	-1.9	3.3	12.1	0.8	2.0
Real 1-year interest rate (government bonds, level)	-0.3	-0.8	0.1	-1.9	-1.4	1.6	1.6
Value of the public's financial assets portfolio	6.4	6.6	5.7	15.6	5.2	2.7	2.0
Private savings	5.6	7.4	30.5	-6.2	-0.2	16.9	21.5
Consumer Confidence Index	4.0	-0.4	-14.0	12.1	-4.7	-2.8	-2.6
Fixed capital formation (excluding ships and aircraft)	5.0	4.1	-1.9	14.1	10.7	-3.1	5.4
Credit to the business sector	4.0	3.6	2.2	7.7	14.8	8.8	
Real 10-year interest rate (government bonds, level)	1.1	0.0	-0.5	-0.8	0.1	1.2	1.1
Purchasing Managers Index (level)	50.0	51.3	48.5	52.6	51.1	49.1	49.2
Public consumption excluding defense imports	3.2	2.8	2.5	4.6	1.0	7.2	2.3
Total taxes[c]	30.6	30.0	29.5	32.2	32.6	29.8	
General government budget deficit[c]	4.4	4.5	11.4	5.3	1.8	6.7	

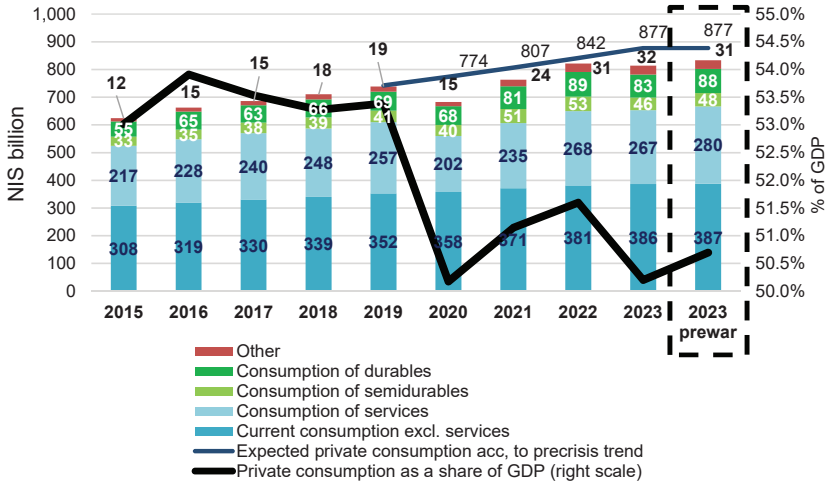
[a] Average of the past 15 years.

[b] The level during this period or the rate of change vis-à-vis the same period in the previous year in annual terms, as relevant.

[c] Level, percent of GDP.

SOURCE: Based on Central Bureau of Statistics, and the Purchasing Managers Indices compiled by Bank Hapoalim and the Purchasing Managers Association.

Figure 2.3
Real Private Consumption by Main Component*, Trend and Share of GDP, 2015–2023 (NIS billion in 2015 fixed prices, and real percent of GDP)

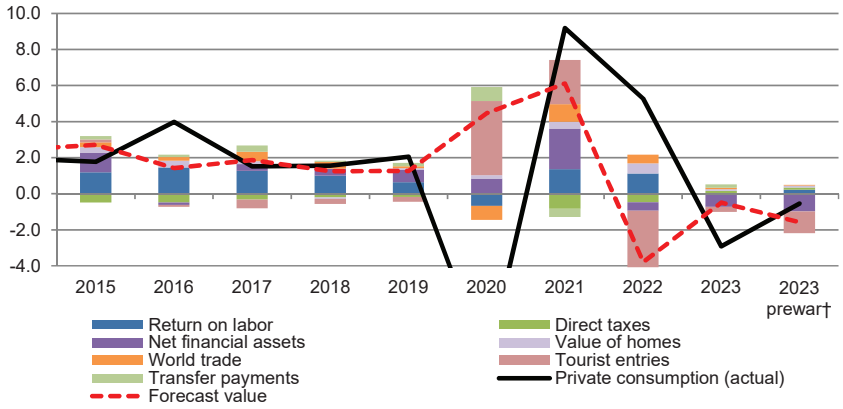


* "Durables" includes furniture, jewelry and watches, electrical and other equipment, and vehicles. "Semidurables" includes clothing and footwear. "Current consumption excl. services" include housing, fuel, electricity and water, food, beverages, and tobacco. "Consumption of services" includes transportation, restaurants and hotels, education, healthcare, art, recreation and leisure, communications, and welfare and long-term care services. "Other" includes Israelis' consumption abroad minus nonresidents' consumption in Israel, plus consumption expenditures of private nonprofits.

† In annual terms.

SOURCE: Based on Central Bureau of Statistics.

Figure 2.4
Growth in Per Capita Real Private Consumption: Actual, Forecast, and Contribution of Explanatory Variables to the Forecast, 2015–2023 and 2023 Before the War* (percent, annual terms)



* In 2020, per capita real private consumption declined by 9.5 percent.
† Relative to the same period in the previous year.
SOURCE: Based on A. Barak (2017), "The Private Consumption Function in Israel", Bank of Israel Discussion Papers Series, 2017.04.

The decline in private consumption was driven mainly by the real contraction of the public's financial assets portfolio.

Several factors explain the slow increase in private consumption. The first is a 3.2 percent real decline in the value of the public's (net) portfolio of financial assets in pre-war 2023, apparently influenced by the legislative processes that the government was promoting at the time. Using Barak's (2017)[3] model to quantify the determinants of private consumption in Israel points to a 1.6 percent expected decrease in private consumption in pre-war 2023. According to the model, a downturn in portfolio value was the main determinant of the falloff in consumption, whereas the return on labor and transfer payments increased consumption (Figure 2.4). The figure shows that the model aptly explains the changes in private consumption before the COVID-19 crisis and in 2023. Since it diagnoses changes associated with long-term macro factors, however, it (like most models) cannot explain the abrupt changes that occurred during the COVID-19 crisis.

The rise in interest rates raised mortgage interest rates and thus reduced disposable income for consumption.

Another determinant of the sluggish growth of private consumption was the increase in the domestic interest rate. A very large share of loans in Israel, including housing loans, is given at variable rates; therefore, the interest rate increase had an almost immediate effect on households' disposable income for consumption.

In a check using data from the Central Credit Register, it was found that total housing-loan repayment (principal and interest) by households increased in the first three quarters of 2023 by 16 percent relative to the same period in 2022.[4] This is an increase of NIS 4.3 billion, which is 0.7 percent of private consumption and 13 percent of the gap between private consumption and its trend in 2023. The growth of these

[3] Arnon Barak (2017), "Israel's Private-Consumption Function," Bank of Israel Discussion Paper 2017.04 [Hebrew].

[4] The upturn cannot be traced to an increase in new housing loans because the number and size of new housing loans fell at that time.

payments reduced households' disposable income for consumption. (See Chapter 4 in this Report.) Beyond the direct impact, the upturn in the interest rate prompted some households to repay loans early and induced others (unobserved, of course) to defer some consumption and refrain from borrowing in the current interest environment. (For elaboration, see Box 4.2, "Heterogeneity in Changes in Households' Debt Burden due to the Increase in the Bank of Israel Lending Rate," in Chapter 4 of this Report.) Nonhousing household credit increased in pre-war 2023 by only 2 percent (compared to 4.6 percent annual average growth in 2014–19). The same rate increase also incentivized some households to increase their savings above and beyond cutting back on credit.

Weakness in private consumption of services is shared by most OECD countries.

The weakness of private consumption of services is shared by most OECD countries. Figure 2.5a presents private consumption of services relative to its trend in Israel and the other OECD countries.[5] In the third quarter of 2023, this indicator still lagged behind its trend in all the aforementioned countries, much like the situation in Israel. For a comparison, Figure 2.5b shows consumption of goods in the same countries. One may see that consumption of the goods returned to its trend immediately upon the exit from the COVID-19 crisis and resumed its downward path only in 2022, when advanced economies saw increases in inflation and interest rates. Consumption of goods in Israel evolved in the same manner.

In the last quarter of the year—the wartime quarter—private consumption fell by 7.6%.

After the war broke out, private consumption fell by 7.6 percent in the quarter, mainly on account of the services component. The steep decline is explained, on the demand side, by consumers who refrained from and were fearful of moving about and seeking entertainment and, on the supply side, from the closure of service providers due to defense instructions, the mobilization of reserves, and absence from work for additional reasons.

b. Public consumption

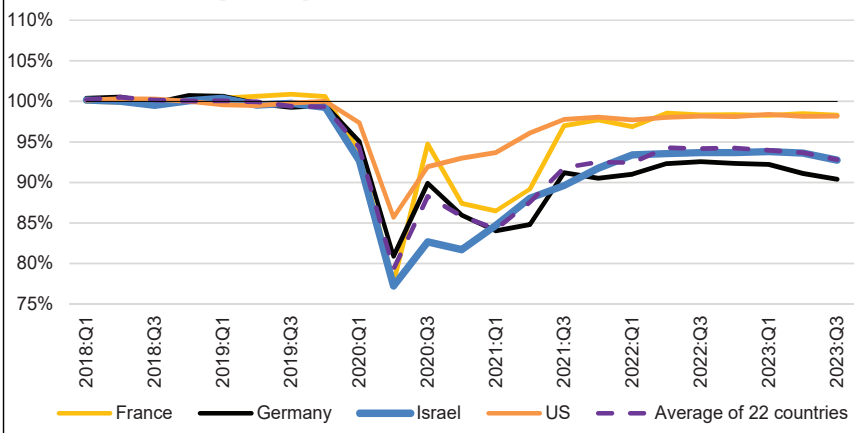
In the last quarter—the wartime quarter—public consumption leaped by 17.7% due to a combination of substitution for other activity and increased demand.

From the beginning of 2023 to the eruption of the war, public consumption (net of defense imports) expanded at a sluggish 2.2 percent pace and had a mildly contractionary impact on economic activity. In the wartime fourth quarter, public consumption expanded considerably, by 17.7 percent, bringing the full-year rate of increase to 7.2 percent. This upturn in activity had many components, the purpose of which were a steep increase in war related expenditure and, particularly, wage payments to the large number of mobilized reservists, larger defense and civilian procurements from domestic suppliers, funding the care of evacuees, and the beginning of spending on reconstruction of the "Gaza envelope" region. Some of this consumption substituted for other activity that was cut back, such as the transfer of reservists from civilian

[5] The data on services in these comparisons relate to consumption of services plus consumption of housing because the OECD systems do not list services and housing separately. Housing consumption in Israel had risen back nearly to its trend before the war; therefore, the services that also include it may be slightly upward-biased in the Israeli case.

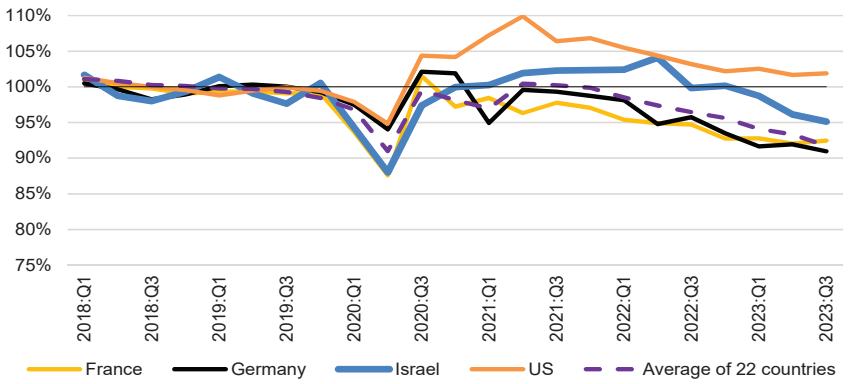
employment to military service and payment of their wages by the government.[6] Another portion of it involved increases in domestic demand, such as procurements from domestic suppliers and expenditure on reconstruction of affected areas. (For discussion of long-term trends in public consumption and the defense budget, see Box 6.1 in Chapter 6 of this Report.)

Figure 2.5a
Private Consumption of Services (incl. current housing consumption)[a,b], 2008:Q1–2023:Q3 (percent, quarterly data)



[a] As a share of their 2014–2019 trend.
[b] A separate trend was calculated for each country based on its consumption of goods and services betgween 2014 and 2019. The figure includes data for 22 advanced OECD countries for which there are appropriate data in the organization's database. Data for Israel were also taken from the OECD database to enable comparison. The average excludes Israel. Trends were examined in a range of a few more years, and the results were similar.
SOURCE: Based on OECD.

Figure 2.5b
Private Consumption of Goods (incl. goods for current consumption, durables, and semidurables)[a,b], 2008:Q1–2023:Q3 (percent, quarterly data)



[a] As a share of their 2014–2019 trend.
[b] A separate trend was calculated for each country based on its consumption of goods and services betgween 2014 and 2019. The figure includes data for 22 advanced OECD countries for which there are appropriate data in the organization's database. Data for Israel were also taken from the OECD database to enable comparison. The average excludes Israel. Trends were examined in a range of a few more years, and the results were similar.
SOURCE: Based on OECD.

[6] The government housing subsidies to the masses of civilian evacuees from the war zones were also meant to substitute for other economic activity but were not paid in return for services that they provide the government. Therefore, they were included in government expenditure but not in public consumption.

c. Investment

Investment grew at a 5.4% pace, driving total demand until war erupted. Business capital stock increased briskly.

Fixed capital formation (net of ships and aircraft) increased in pre-war 2023 by 5.4 percent, slower than in the previous two years, but it was the driver of domestic demand at the time. The full-employment environment evidently increased the demand for nonhousing investment (which grew by 4.6 percent) until the war began, (Figure 2.6) due to companies' wish to boost their production capacity when they could not do so using existing factor inputs. The rate hikes, however, raised the opportunity yield on capital and made corporate borrowing more expensive, which manifested itself in a slower growth rate of business credit. (See Table 2.3; for elaboration, see Chapter 4 in this Report.). Business capital stock grew by 6.0 percent, the fastest pace in recent years.

Growth of investment was driven by construction; machinery and equipment investment slackened.

The increase in investment was driven by investment in construction, both residential (up 7.3 percent), and nonresidential (up 10.2 percent), whereas machinery and equipment investment declined and intellectual-property investment (e.g., patents) grew. Nonresidential structures (e.g., factories and office buildings), machinery and equipment, and intellectual property are capital goods that can serve as complementary or substitutional factor inputs, depending on the project. The real currency depreciation in 2023 apparently contributed to this change in the composition of investment. Thus, after the share of imports in machinery and equipment investment grew steadily in 2020 to 2022—years of currency appreciation—the composition of machinery and equipment investment changed in pre-war 2023 amid the real depreciation. The investment in imported machinery and equipment contracted by 11.8 percent, whereas investment in machinery and equipment of domestic manufacture grew by 9.7 percent.

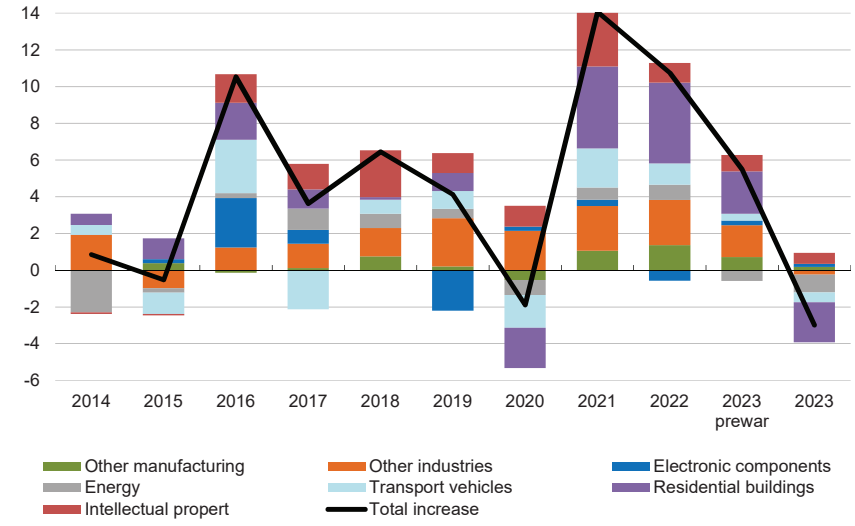
Nonresidential construction investment is divided among infrastructure (in various industries), manufacturing and trade and services (including central and municipal government services). In recent years (2015–22), infrastructure construction investment accounted for 38 percent of nonresidential construction investment. In pre-war 2023, infrastructure investment grew at a slow rate and therefore accounted for only 32 percent of nonresidential construction investment.

Investment decreased at an extreme 24.4% pace during the wartime quarter, largely due to plummeting investment in construction.

After the war broke out, investment (net of ships and aircraft) declined sharply by 24.4 percent in a quarter[7] and nonresidential investment (net of ships and aircraft) fell by 12.3 percent. The drop in construction industry activity was reflected in decreases in residential construction investment (53.2 percent), and nonresidential construction investment. (29.1 percent) Machinery and equipment investment decreased by 5.2 percent.

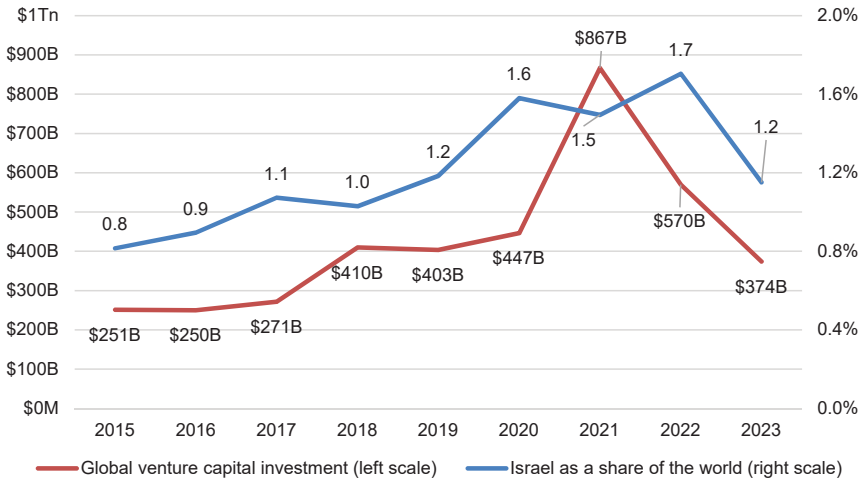
[7] The data in this paragraph are expressed in quarterly rates of change in quarterly terms, unlike the rest of the chapter, in which rates of change are presented in annualized terms.

Figure 2.6
Increase in Fixed Capital Formation (excl. ships and aircraft): Total Increase and Contribution of Components, 2014–2023 (percentage points)



SOURCE: Based on Central Bureau of Statistics.

Figure 2.7
Global Venture Capital Investment, and Investment in Israel as a Share of Global Investment, 2015–2023



SOURCE: Based on Israel Innovation Authority and Pitchbook data.

Startup companies' output fell by 14.6% in pre-war 2023—the first decline since 2017.

Startup companies' output declined in pre-war 2023 by 14.6 percent—the first downturn since 2017. The decline originated in a downturn in investment in these companies. Although this was part of a global trend of lower investments in startups in 2023 (Figure 2.7), the decline was steeper in Israel than abroad and Israel's share of global venture-capital investment retreated to its 2019 level. One possible explanation of the steeper decline in Israel was the effect of the legislative processes that the

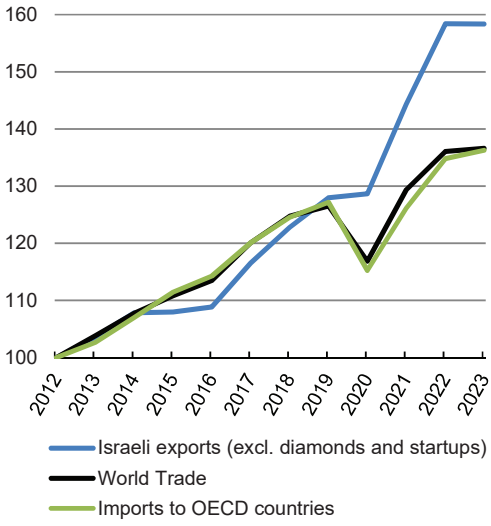
government was promoting at the beginning of 2023 on willingness to invest in Israel. It is impossible, however, to isolate the effects of the legislative changes and to know how long the slump in startup investment will continue. During the war, startup output fell by 25.3 percent in quarterly terms due to, among other things, the number of high-tech workers generally, and those in startups particularly, who were mobilized for reserve duty in the war.

d. Exports

In pre-war 2023, exports (net of diamonds and startup companies) increased by 2.1 percent. Israel's export growth was moderated by sluggish global trade. The IMF estimated that global trade increased in full-year 2023 by only 0.4 percent, and that global trade in goods actually contracted by 0.3 percent (Figure 2.8). The slowdown impacted Israel's exports of goods in pre-war 2023 and accelerated the descent of maritime shipping tariffs back to their pre-pandemic level, thus reducing exports of maritime transport services (Figure 2.9).

Export growth slowed to 2.1% in pre-war 2023 due to weak global trade and a decline in maritime transport tariffs.

Figure 2.8
World Trade, OECD Imports, and Israeli Exports, 2012–2023 (quantitative index: 2012=100)



SOURCE: Based on Central Bureau of Statistics, OECD, and IMF.

The real currency depreciation caused export profitability to grow. Goods exporters only profited partially from the depreciation, because a large share of Israel's goods exports is dependent on imported raw materials, which the depreciation made more expensive. Exports of high-tech services, an industry that consumes no raw materials and requires relatively little physical capital, benefited from most of the depreciation. Therefore, as in recent years, high-tech services exports remained one of the engines of GDP growth in pre-war 2023.

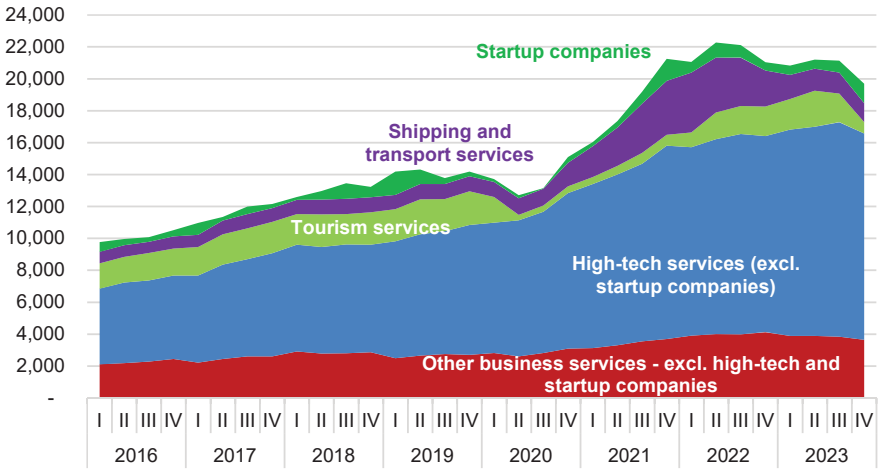
Real depreciation increased export profitability, particularly in high tech.

Goods exports (net of diamonds) contracted by 0.6 percent in 2023 before the war. Tourism services exports increased by 63.9 percent during this time and were, on average, only 13 percent below their pre-pandemic level.

After the war broke out, exports declined at a 5.4 percent quarterly rate—the smallest rate of decrease among the main components of output. About one-third of the downturn derived from a 62.5 percent decrease in tourism. Exports of high-tech services edged down slightly.

Exports contracted by 5.4% in the wartime quarter.

Figure 2.9
Services Exports, 2016–2023 ($ million, quarterly, seasonally adjusted)



SOURCE: Based on Central Bureau of Statistics.

5. SOURCES—IMPORTS AND GDP

a. Imports

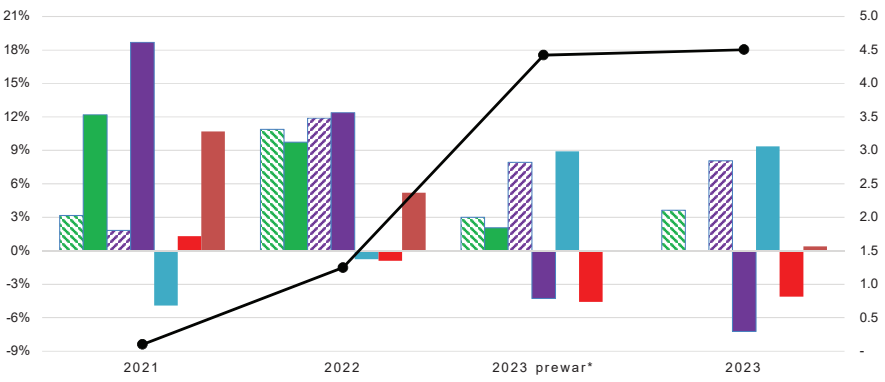
Imports decreased at a 4.1% pace in prewar 2023 due to depreciation, weak global trade, and interest rate hikes.

Imports contracted in pre-war 2023 by 4.1 percent. Foremost among the contributing factors was the ongoing real depreciation that began in the middle of 2022, which raised the prices of imported goods and services (including investment in machinery and equipment and raw materials for manufacturing) and dampened demand for them (Figure 2.10)—after steep upturns in demand for imports in 2021 and the first half of 2022, following the COVID-19 crisis. Second, the lethargic growth of global trade weakened demand for Israel's exports of goods and therefore contributed to a decline in imports of raw materials for goods industries. Finally, the rise in interest rates and the drop of the real value of the public's asset portfolio, as stated, slowed private consumption and, in turn, reduced the demand for consumer goods, including imported ones.

The prewar decline in imports focused on goods imports.

The decrease in imports in pre-war 2023 centered on goods imports. Services imports continued to increase during that time but at much slower rates from the third quarter of 2022 onward (when the interest rate increases and real currency depreciation began). In particular, imports of tourism services (i.e., outgoing foreign travel) increased before the war by 29.0 percent and were 12. 2 percent higher, on average, than before the COVID-19 crisis. The decrease in maritime transport tariffs lowered importing costs and moderated the increase in import prices.

Figure 2.10
Interest Rates and Rates of Change in the Real Exchange Rate, World Trade, Terms of Trade, and Import and Export Quantities and Prices, 2021–2023



* Change from the same period in the previous year.
SOURCE: Based on Central Bureau of Statistics.

Imports fell by 14.1% in the wartime quarter as the demand for goods and services shrank.

After the war began, imports plummeted by 14.1 percent during the quarter, impacting both goods and services (tourism and other). Most of the decreases in both imports and exports occurred in services, signaling that they originated not in supply constraints in international trade, such as a major decrease in maritime transport to and from Israel, but rather in a decline in domestic demand. This decline owed its origins mainly to the drop in private consumption and investment originating in imports.

b. The adverse impact of the Swords of Iron War on the economy's industries

The war negatively impacted the economy in various ways, many of which are not easy to quantify, but it had specific, measurable, and significant effects on several industries.

The steep decline in construction activity, precipitated mainly by the absence of Palestinian workers, reduced the Q4 growth rate by 3 percentage points.

Construction activity was severely adversely impacted, largely because Palestinian workers were not employed in this period and local authorities shut construction sites down. The 50 percent decrease in the activity of this industry, which accounted for 6 percent of GDP on the eve of the war (Table 2.4), reduced fourth-quarter GDP by 3 percent (0.75 percent in annual GDP terms). Given that the industry requires raw materials and intermediate goods from many domestic industries, its weakness may impair these industries' activity. Calculations based on the Input-Output table for 2014 (the most recent one calculated for Israel) show that this industry's output multiplier is 1.8. This means that the indirect impact of a 50 percent decline in output during a quarter will probably be reflected in an additional 2.4 percent decrease in total quarterly product (0.6 percent annualized). This indirect effect will not necessarily be immediate; it may take time for weak demand in the construction industry to seep into the rest of the economy. If construction-industry activity remains low, the housing market is likely to sustain long-term damage.

Tourism—both inbound and outbound—was massively impacted by the war.

The tourism industry was badly affected by the war, which broke out only three years after the COVID-19 crisis inflicted damage from which it had not yet fully recovered. When the war broke out, most foreign airlines canceled some or all of their flights to and from Israel and inbound tourist arrivals dropped by 80 percent. The flight cancellations originated both in airlines' concerns about flying to Israel at a time of war and in a decrease in demand for flights due to tourists' fears of visiting the country during wartime.[8] Outbound tourism also dropped steeply during the war and many Israelis even returned to the country at this time—many in order to serve in the army reserves. Domestic departures decreased by 60–70 percent during the war. Although this was reflected in the activity of the transport services industry, it evidently increased total domestic economic activity.

Agriculture was also badly affected by the war.

Agriculture was also badly hit. Activity in the "Gaza envelope" area was severely limited in the first few weeks of the war. Activity in some areas of the north was also restricted, Palestinian workers were not employed in agriculture from the outbreak of the war, and the number of foreign workers in agriculture contracted by 25 percent when the war began but gradually rebounded afterwards.

The increase in public consumption—e.g., for accommodation of evacuees in hotels—offset some of the economic damage occasioned by the war.

When analyzing the output of these industries during the war, the increase in output of the public services, which offset part of the decline in GDP brought on by the industries' impairment, should also be noted. For example, public consumption replaced some domestic activity associated with tourism. In particular, the government made massive purchases of hotel services to house evacuees from the "Gaza envelope" and the northern border (either in direct public consumption or by making transfer payments to the evacuees). The sum paid out by the public sector appears to have been smaller than the regular price of accommodation in the hotels used. However, it allowed the hotels in question to operate at full capacity for a long time, meaning that most of the industry's capital was utilized instead of being left idle by the decline in tourism. Overnight stays in tourist hotels were 3 percent higher in the fourth quarter than in the previous quarter despite the collapse of tourism, and 60 percent of overnight stays during that time were of war evacuees. Accommodation of evacuees in hotels, however, is a stopgap measure. Experience shows that the tourism rebounds slowly after major security events; therefore, the adverse impact to the industry is likely to worsen after the evacuees return to their homes or move to alternative housing.

c. Pre-war productivity and macroeconomic developments in the labor market

The pre-war labor market featured full employment and rising real wages.

The labor market continued to tighten in pre-war 2023, with a low unemployment rate, a high employment rate, and a high and rising participation rate. In all these respects, the labor market was tighter than it had been before the COVID-19 crisis. (For elaboration, see Chapter 5 in this Report.) This situation—full utilization of

[8] At times of terrorism, according to Shahrabani (2014), inbound tourism declines and the shares of arrivals for business purposes and of Jewish tourists rise. See Ran Shahrabani, "The Effect of Terror, Image, and Economic Variables on Various Types of Tourist Visits to Israel," Bank of Israel Discussion Paper 2014.05 [in Hebrew].

Table 2.4
Change in industry output at base prices, 2007–2023

(annual change, percent, fixed prices)

	Share of total GDP, 2022[a]	2007–2022[b]	2018	2019	2020	2021	2022	2023	2023:Q1–Q3[c]
Total		3.8	4.0	3.6	-1.0	8.9	6.1	2.6	3.4
Public sector services	16.9	2.1	2.6	1.8	-2.5	4.8	3.0	5.8	2.2
Business sector	72.3	4.4	4.5	4.2	-1.2	11.1	7.3	1.9	3.7
Manufacturing, mining and quarrying	11.7	2.3	8.9	3.6	9.0	3.5	5.3	0.3	1.0
Trade, hospitality and food services	11.6	5.7	2.5	2.4	-8.0	14.4	8.9	2.6	5.6
Business services	18.1	4.3	0.1	5.1	-0.8	10.3	5.3	0.5	2.2
Construction	6.3	2.0	5.4	3.4	-5.8	9.7	9.3	-5.3	4.9
Transportation and storage	3.8	4.8	2.9	0.2	-20.0	20.2	12.9	-2.2	1.4
Information and communications	12.9	9.9	8.0	10.9	9.2	13.4	8.3	10.3	10.4
Agriculture	1.3	2.1	-3.8	0.6	-3.9	8.0	2.7	-6.0	-7.3
Electricy and water	1.7	3.1	5.9	6.7	0.3	4.9	-1.7	1.1	-1.1
Education, health and art	6.1	2.8	7.9	2.2	-7.3	14.2	10.3	3.4	7.2

[a] In addition to public services and business sector output that appear in the table, total GDP includes the output of housing services. The weight is calculated on data in fixed prices.

[b] Average of the past 15 years.

[c] Rate of change compared to the same period last year, in annual terms.

SOURCE: Based on Central Bureau of Statistics.

factor inputs—is one of the manifestations of an efficient economy, in which only a very small proportion of people interested in working are unable to find work. The tightening does, however, make it harder to expand economic activity rapidly, by making available and unutilized labor and capital scant. It also means that new participants in the labor force are likely to be less skilled and productive than are those already employed, given that most of the people who have labor market-relevant skills were already participating. The resulting situation may generate upward pressure on wages. Indeed, real wage increased by 1.2 percent in pre-war 2023. However, the labor share in GDP continued to fall, so no meaningful upward wage pressure appears to have developed.

Capital stock and, in turn, return on capital, have grown rapidly in recent years.

In 2020–22, return on capital increased, and a consistent and rapid expansion of gross capital stock meant that capital stock per worker grew swiftly. Thus, return on capital, the capital stock, and with them the capital share in GDP, rose to levels unseen since 1995 (Appendix Table 2.9). The increases in return on capital and in capital share originated in the COVID-19 crisis, which brought on a severe downturn in labor input and, particularly, in the employment of low-skilled workers.[9]

Israel's potential GDP growth rate accelerated in the previous two years, largely due to increases in the growth rate of capital stock and labor market participation.

[9] According to the Capital-Skill Complementarity Hypothesis, capital is more of a substitute for low-skilled workers than for high-skilled ones. Consequently, an adverse shock to the supply of low-skilled labor may raise the return on capital as a substitute, whereas a decrease in the supply of highly skilled labor might reduce the return on capital because they are complementary factor inputs.

GDP growth slowed in pre-war 2023 relative to 2021–22 due to full employment.

This pace does not necessarily reflect the country's long-term growth rate, which was lower in the previous decade, and is expected to be lower in decades to come as well.

GDP growth slowed in pre-war 2023 relative to the previous two years. This is in large part due to the full-employment environment and the upturn in inflation, which together triggered a monetary-policy response that was meant to restrain surplus demand and inflation. In contrast, the growth rate of business capital stock increased, including the growth rate of the stock of intellectual-property, which increased rapidly (Table 2.5). As a result of all these developments, business labor productivity grew by 1.9 percent but total business productivity remained flat and return on capital declined.

Figure 2.11 shows the output gap according to the production-function approach. It also displays the slowdown in GDP growth and the narrowing of the output gap amid ongoing labor-market tightness, as well as the falloff in productivity with the entry of relatively low-skilled labor, and the continued investment in capital, which is at least partly complementary to labor, and therefore its marginal contribution declined.

Table 2.5

Overall and business sector output supply, 2007–2023[a]

(annual change, percent)

	2007–2022[b]	2019	2020	2021	2022	2023	2023:Q1–Q3[c]
GDP	3.9	3.8	-1.5	9.3	6.5	2.0	3.8
of which: Business sector output	4.4	4.3	-1.8	11.4	7.7	1.2	4.2
Public services output	2.4	1.8	-2.5	4.8	3.0	5.8	2.2
Total capital stock	3.6	4.0	3.9	3.4	3.9	4.5	4.5
of which: Capital stock in the business sector	4.2	5.0	5.1	4.3	4.9	6.0	5.5
Labor force	2.0	1.4	-0.8	1.8	4.5	2.9	3.6
Total work hours	2.3	0.7	-8.5	7.0	7.1	2.2	2.8
Total business sector work hours	2.2	0.7	-10.2	7.1	9.1	0.0	2.3
Productivity (real GDP per work hour)	1.5	3.0	8.3	1.7	-0.9	0.4	
Business sector productivity (real GDP per work hour)	2.0	3.4	10.0	3.7	-1.6	1.9	
Total factor productivity	1.1	1.9	3.8	2.8	0.0	-0.3	
Total factor productivity in the business sector	1.4	2.1	4.4	4.5	-0.5	0.0	
GDP per work hour (nominal)	3.5	5.4	9.3	3.8	4.2	4.7	6.4
GDP per work hour in the business sector	3.7	6.2	10.3	6.4	3.8	6.3	6.6
GDP labor share per work hour (nominal)	3.3	4.3	7.6	1.1	3.3	3.3	4.8
GDP labor share per hour in the business sector	3.4	4.7	9.0	2.4	2.3	3.6	4.5
GDP labor share, total	-0.3	-1.0	-1.6	-2.6	-0.7	-1.4	-1.5
GDP labor share in the business sector	-0.3	-1.4	-1.1	-3.7	-1.3	-2.5	-2.0
GDP labor share, total (level)	54.3	55.6	54.7	53.3	52.8	52.1	52.0
GDP labor share in the business sector (level)	58.3	60.1	59.4	57.2	56.3	54.9	55.2
Potential GDP[d]	3.9	3.9	3.9	4.1	4.4	4.4	4.4
Output gap[d,e]	0.1	1.1	-4.7	0.6	2.6	0.1	2.0

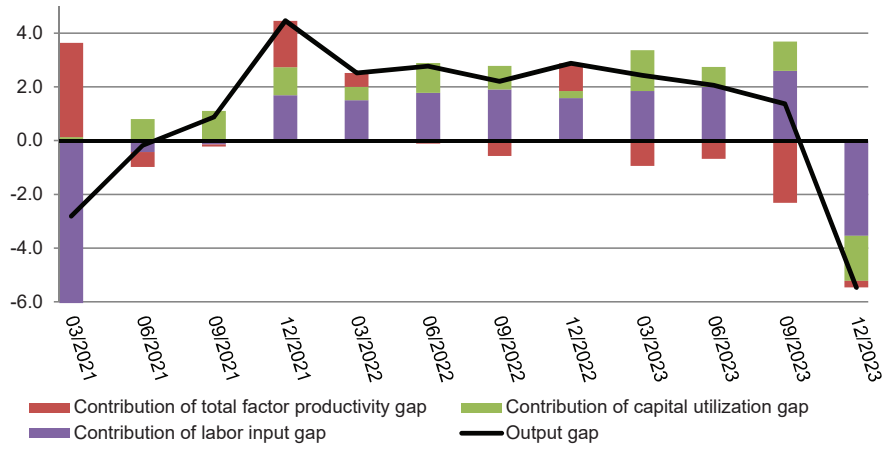
[a] Data on productivity and GDP per work hour are in base prices, while GDP is in market prices.

[b] Average of the past 15 years.

[c] The level during this period or the rate of change vis-à-vis the same period in the previous year in annual terms, as relevant.

[d] Estimate. Potential GDP is equal to the GDP obtained at a hypothetical equilibrium at which the level of utilization of all factors of production is

Figure 2.11
Output Gap and Its Components*, 2021–2023 (percent, quarterly)



* Deviation (in percent) of actual GDP from potential GDP (based on the production function approach).
SOURCE: Bank of Israel.

d. Macroeconomic changes in the labor market after the outbreak of the war

The labor force contracted powerfully when the war began due to closure of schools, evacuation of southern and northern residents, barring of Palestinian workers, departure of some foreign workers, and mobilization of hundreds of thousands of employed persons for army reserve duty.

When the war began, the labor force and labor supply contracted considerably and immediately. Four main factors account for the decrease: parents remaining at home to mind children due to the closure of schools throughout the country for most of October 2023, the evacuation of the "Gaza envelope" and some northern-border localities, reductions in the employment of Palestinians and foreign workers, and the large-scale mobilization of army reserves. The first and largest of these factors ended in October once the rocket-fire on the home front waned, allowing pupils to go back to school. The second factor persisted, as the evacuees were not allowed to return to their homes as of the end of 2023. Therefore, many of them were unable to participate in the labor market during this time, dealing a serious blow to the agriculture sector, which was also impacted by the departure of a large share of the foreign workers. The banning of Palestinian workers remained in effect throughout the fourth quarter of 2023, damping labor supply in construction, which was the main blow to that industry's activity. Finally—hundreds of thousands of employed persons were mobilized for reserve duty and most had not been discharged as of year's end. Although recorded as employed in the official statistics, they were absent from the civilian labor force and could not engage in their ordinary activity. These soldiers accounted for 5 percent of employed persons of main working age.

6. PRIVATE SAVINGS AND THE BALANCE OF PAYMENTS CURRENT ACCOUNT

a. Private savings

Growth of private savings increased again in prewar 2023.

The share of private savings in Israel's national income has increased in recent years. During the COVID-19 crisis, the share climbed to 34.7 percent—compared with 25 percent on average previously—largely because fewer opportunities to consume were available. As the pandemic waned, savings moderated somewhat, but still remained relatively high. In the course of 2023, the savings rate grew to 32.5 percent and private consumption advanced slowly until the war began. The rise in domestic yields was evidently a primary reason for preferring savings over consumption.

The interest rate rise incentivized savings by improving their return.

An interest rate increase raises the return on savings, thus enhancing the incentive to save and weakening the incentive to consume in the present. It also makes credit more expensive, crimping purchases on credit and incentivizing individuals to divert a larger share of their disposable income to reducing outstanding consumer credit (or at least slowing its growth) and paying back debts. Importantly, regular monthly debt payments are recorded not as consumption, but rather as reductions in personal disposable income. Conversely, debt payback is considered savings. Additional reasons for the increase in savings may be a rise in economic or political uncertainty, Ricardian savings[10], and change in the public's time preference or its expectations of large future expenditure. After the war began, there was also a component of savings that originated in a decline in the possibility and the willingness to engage in private consumption in the ordinary manner.

Public savings decreased during the year and fell into negative territory due to the growth of the government's current deficit (see Chapter 6 for elaboration), such that total national savings in 2023 resembled those of the previous year.

b. The current account

Before the war, the current-account surplus resembled that in previous years due to falling fuel prices, high-tech exports, and currency depreciation.

In pre-war 2023, the current-account surplus was $13.4 billion ($18 billion on an annualized basis), much as in recent years. Three determinants explain this stability: energy imports declined by $3 billion relative to the corresponding period in 2022, largely due to a decline in fuel prices; high-tech services exports continued to grow, as noted; and depreciation apparently contributed to a decrease in imports.

Worsening terms of trade, falling maritime transport tariffs, and growth in outbound tourism moderated the increase in the current-account surplus.

In contrast, several factors moderated the growth of the surplus. The deterioration of terms of trade and, in particular, the decrease in maritime transport tariffs reduced Israel's transport services exports. The balance sheet of maritime-transport services fell in pre-war 2023 by $4.6 billion, sinking to a level only slightly higher than that preceding the COVID-19 crisis. In 2020–23 all told, the industry contributed $10 billion to the current-account surplus. In 2023, the tourism balance sheet reduced the

[10] Savings meant to pay future taxes that the government will have to impose in order to repay debts that it amassed in the present.

current account by $0.2 billion due to a steep increase in imports of tourism services (Israelis' departures abroad) until the war broke out.

The current-account surplus in the fourth quarter was approximately $12.0 billion, bringing the surplus in the full year to $25.3 billion, 25 percent higher than in 2020–22. This steep increase reflected the sharp drop in imports as against stagnation in exports in 2023.

The current-account surplus was large during the war, with the full year surplus surpassing that of previous years by 25%.

Table 2.6
Savings, investment, and the current account, 2007–2023

(percentage of national income)

	2007–2022[a]	2019	2020	2021	2022	2023	2023:Q1–Q3[b]
Gross national savings	26.2	26.7	28.8	29.1	30.6	30.3	30.3
of which: Public	0.7	0.3	-5.9	-0.6	3.1	-1.3	1.0
Private	25.5	26.4	34.7	29.7	27.5	31.6	30.0
Gross investment	22.9	23.3	24.0	25.2	26.7	25.3	26.9
of which: In principal industries	15.8	16.0	16.2	16.7	17.0	17.2	17.4
General government's investments[c]	6.1	5.8	6.9	5.7	5.7	5.9	
In housing	6.4	6.5	6.1	6.6	7.3	6.5	7.5
In inventory	0.8	0.8	1.7	1.8	2.4	1.7	2.0
Net current account	3.3	3.4	4.8	3.9	3.9	5.0	3.5
of which: Balance of goods and services	1.8	1.8	4.1	3.6	2.9	3.7	2.9
Net income account	-1.2	-0.5	-0.9	-1.5	-0.9	-0.6	-1.1
Net current transfers	2.4	1.8	1.5	1.7	1.6	1.6	
Terms of trade[d]	0.8	4.0	2.7	1.3	-0.9	-4.1	-4.6
Real effective exchange rate[d,e]	-2.2	-2.5	-3.1	-3.9	-0.9	9.4	8.9

[a] Average of the past 15 years.

[b] The level during this period or the rate of change vis-à-vis the same period in the previous year in annual terms, as relevant.

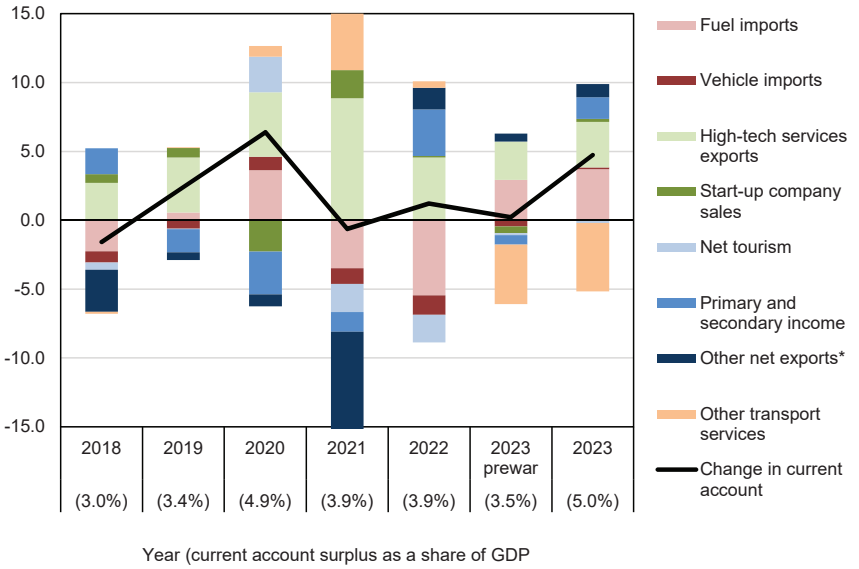
[c] Including investment grants.

[d] Rate of change in annual terms, percent.

[e] An increase refers to depreciation.

SOURCE: Based on Central Bureau of Statistics.

Figure 2.12
Change in the Current Account Surplus, and Contribution of the Main Components, 2018–2023 and 2023 prewar† ($ billion)



† The prewar 2023 change is relative to the first three quarters of 2022.
* Surplus goods and services exports excl. the components listed separately.
SOURCE: Based on Central Bureau of Statistics (balance of payments and foreign trade).

Box 2.1
Israeli-Palestinian trade under the impact of the Swords of Iron War

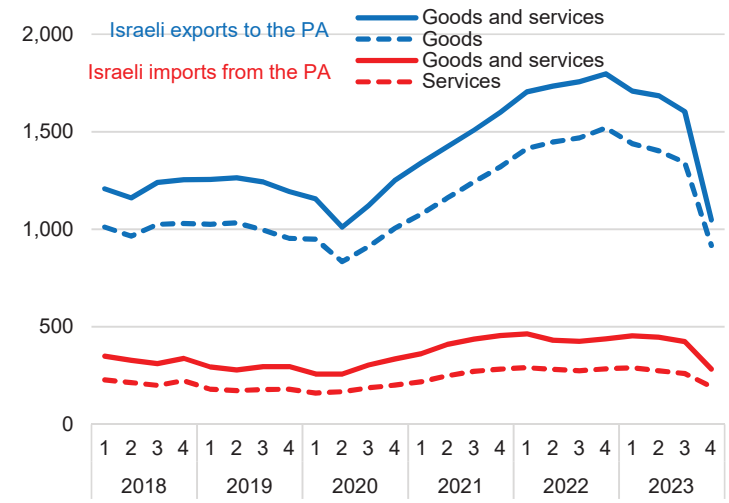
- Israel's exports to the Palestinian markets in Judea-Samaria and Gaza, $7 billion in 2022 and 4.2 percent of Israeli exports, shrank by 35 percent in the last quarter of 2023 due to the Swords of Iron War.

Israeli-Palestinian trade is different in character from the country's trade with other markets. First, it takes place within a (de facto) customs and currency union and entails short-distance overland transport. Second, the Palestinian markets in Judea-Samaria and Gaza are poor by the standards of Israel's main trading partners. Due to the geographic proximity and the customs and currency union, Israeli-Palestinian trade is large in scale but largely limited to traditional goods—unlike Israeli exports to the rest of the world, which focus on advanced goods and services that reflect Israel's comparative advantage in the global market.

Reported exports to the Palestinians center on energy products, food products, beverages, plastics, and animal and vegetable products. Reported Israeli imports from the Palestinian markets include food-industry products and lumber and quarry products for use of the Israeli construction industry. Most Israeli exports (85 percent) are to Judea-Samaria; the remainder goes to the impoverished Gaza Strip, which also imports directly from Egypt (without having to meet Israeli customs terms). Almost all imports from Palestinian markets originate in Judea-Samaria (Palestinian Central Bureau of Statistics).[1]

Israeli exports to the Palestinian markets expanded in 2020–22 and came to $7 billion in the latter year, 4.2 percent of Israel's total exports of goods and services. Exports to Palestinian markets declined slightly in the course of 2023 and contracted by 35 percent in the fourth quarter

Figure 1
Reported Trade between Israel and the Palestinian Authority, 2018–2023 ($ milllion in current prices)



SOURCE: Central Bureau of Statistics.

[1] The trade data are based mainly on dedicated Value Added Tax accounts for trade between Israeli and Palestinian transactors and do not include data on trade between individuals on one side and individuals or transactors on the other side. Also omitted is trade that is illegally unreported to Value Added Tax. Therefore, the analysis excludes purchases by Arab citizens of Israel and residents of eastern Jerusalem in the Palestinian economy—mainly of consumer goods and tourism, healthcare, and education services.

due to the effects of the Swords of Iron War (Figure 1). Notably, in the fourth quarter of the Second Intifada (2000:Q4), exports to Palestinian markets declined at a similar rate and took three years to recover.

The direct added value to companies that sold goods and services to the Palestinians in 2022 is estimated at NIS 6.6 billion per year (0.3 percent of GDP). The total added value including the value-chains in the Israeli market, is estimated at NIS 11.5 billion (0.7 percent of GDP) and the total return to labor of this origin is estimated at NIS 5.3 billion.[2] A contraction of approximately 30 percent in exports to the Palestinian markets that lasts several years, as occurred in 2001–03, may dent Israeli GDP by up to 0.2 percent per year, mainly in traditional industries, insofar as alternative markets are not found.

[2] The direct and indirect added value of these exports in 2022 was estimated with the help of detailed (143 clusters) input-output tables (for 2014) and detailed data on Israeli exports to the Palestinians obtained from the Central Bureau of Statistics after filtering of re-exports to the Palestinians of goods imported from abroad.

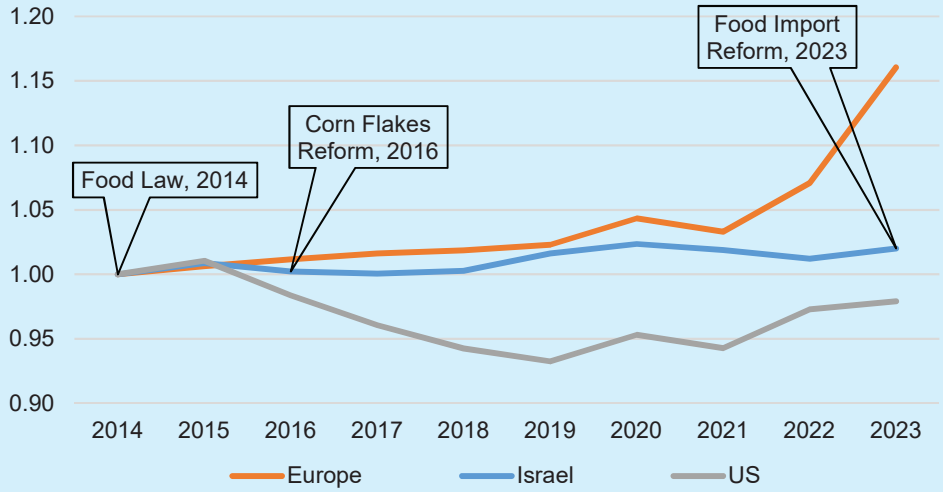
Box 2.2
Food Prices and Imports

- The ratio of food prices in Israel to the general Consumer Price Index has been basically unchanged in the past decade. The corresponding index in the United States tended to decline—at least until the COVID-19 crisis—whereas the European index tended to rise and did so with increasing intensity as a result of the Russia-Ukraine war.
- Over the past decade, Israel's government has acted to bring down food prices by reducing import barriers. Indeed, imports have accounted for an increasing share of total food consumption in Israel. By international standards, imports' share of food consumption in Israel is not low given the country's characteristics.
- Despite the increase in imports, there are still no significant indications that the reducing of barriers has lowered food prices, particularly those of locally manufactured food.
- It is important for the government to continue taking action to eliminate the many import barriers that remain in order to amplify the competitive effect of import liberalization on the prices of local goods and to stimulate competition among importers.

a. Food prices and imports

Since the 2011 social protests, which catapulted the topic of the cost of living onto the national public agenda, measures have been taken in Israel to reduce food prices by promoting competition in retail markets and introducing greater flexibility in imports. However, relative prices of food in Israel have not declined in the past decade (Figure 1). The corresponding index in the United States has tended to decline—at least until the COVID-19 crisis—whereas in Europe it has tended to rise and did so with increasing intensity as a result of the Russia-Ukraine war.

Figure 1
Food Price Index Normalized to the General CPI, Israel, US and Europe (EA19), 2014–2023



The index excludes meals outside the home and beverages, and includes fruits and vegetables. Nonalcoholic beverages were omitted since there is a tax on beverages with sugar in Israel and in European countries. This tax in Israel was cancelled in March 2023.

SOURCE: Israel - Based on Central Bureau of Statistics; US - Based on BLS; Europe (EA19) - Based on Eurostat.

Food imports may play an important role in bringing down food prices and increasing the diversity of food products, primarily in countries that have relatively small populations. This is because large-scale food manufacturing in international plants has production advantages that also make it possible to widen the variety of products available to local consumers. The 24 percent share of industrial food[1] imports in Israel is not low by international comparison even if the size of Israel's population is taken into account (Figure 2), despite Israel's geographic distance from the main markets. An examination performed by means of a regression that takes account of per-capita GDP in current USD terms in addition to population size yields essentially the same outcome.[2,3]

The large share of food imports in Israel despite notable import barriers may indicate that wholesale prices abroad are lower than those in local industry. If local prices were low relative to those abroad, the incentive to increase imports is weaker, especially because imports entail additional costs associated with

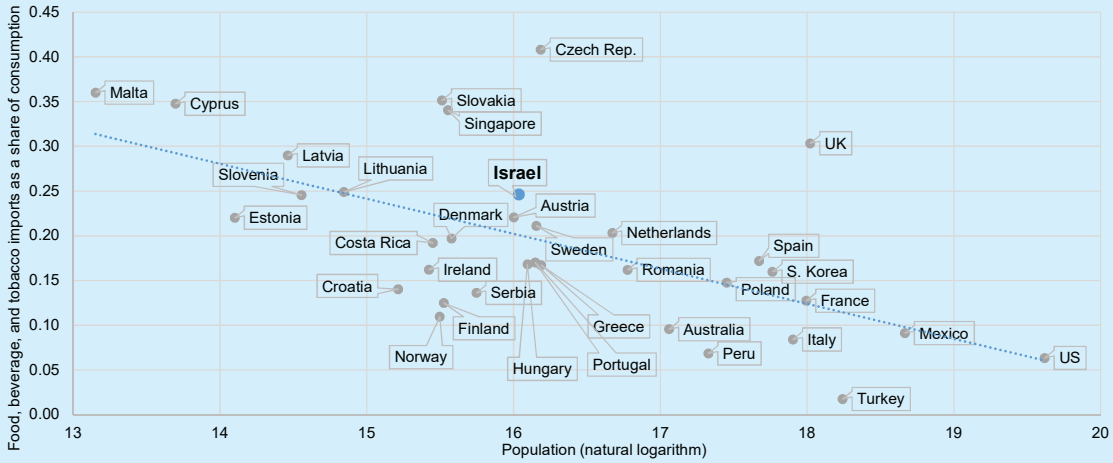
[1] For detailed definition of industrial food, see Table 1.

[2] A positive empirical connection has been found between per-capita GDP and the variety of food products consumed. See, for example, Michael Funke and Ralf Ruhwedel (2001), "Product Variety and Economic Growth: Empirical Evidence for the OECD Countries," IMF Staff Papers 48.2: 225–242; and Philip Sauré (2012), "Bounded Love of Variety and Patterns of Trade," *Open Economies Review* 23: 645–674.

[3] The estimated linear regression equation is the following: food imports as a share of total food consumption = constant - 0.0383 log(pop) + 0.0198 log(GDP per capita at current price). A Tobit regression for a continuous variable between 0 and 1 hardly changed the results. The effect of per-capita GDP was found to be positive but not significant.

cross-border shipping and trade processes. Import barriers are expected to be reflected in the prices that importers charge retailers. Two types of barriers exist: customs barriers, manifested in high tariffs on imports—which still exist on a small share of industrial food[4]—and nontariff barriers—such as Israeli unique food standards. Eliminating some of these barriers should bring down food prices and should downsize or streamline the domestic industry.[5]

Figure 2
Food Imports as a Share of Consumption, and Population, Israel and OECD and Other Countries, 2020



Food, beverage, and tobacco imports as a share of total consumption of those goods. The definition includes alcoholic beverages and tobacco since there are available data, excluding alcoholic beverages and tobacco for only a few countries. The definition for Israel does not include tobacco.
Data for Israel is for 2022.
SOURCE: Israel - Central Bureau of Statistics. Other countries - OECD.

The increase in imports as a share of consumption in recent years (Figure 3) supports the claim that the wholesale prices of at least some food products are lower abroad. The increase in imports began with the "cornflakes reform," legislated in 2016, that immediately made nontariff barriers to importing dry food more flexible.[6] Following the reform, imports as a share of consumption of industrial food and nonalcoholic beverages—which basically remained flat at 14 percent between 1996 and 2015—began to rise in 2016 and grew to 23 percent in 2022.[7]

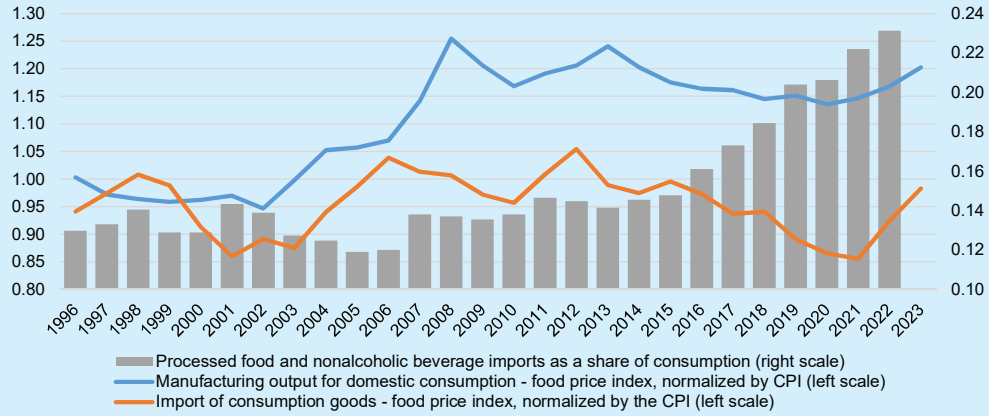
4 Tariffs also apply to imports of some agricultural commodities.

5 When the imports of clothing-and-footwear products and furniture were liberalized in Israel, domestic production contracted and prices fell. In the Open Skies reform, the elimination of entrance barriers to overseas competitors was accompanied by an increase in Israeli airlines' activity, which resulted in lower prices. See Bank of Israel, "The Open Skies Reform and Its Impact on the Tourism Industry and the Israeli Consumer," *Selected Research and Policy Analysis Notes,* October 2021.

6 The "cornflakes reform" encompassed industrial food products such as breakfast cereals, biscuits, crackers, snacks, pastas, rice, chocolate, spreads, and ketchup.

7 The share of imports including nonalcoholic beverages was 24 percent.

Figure 3
Imports of Processed Food as a Share of Expenditure on Food Consumption, and Wholesale Food Prices for Domestic Consumption from Domestic Manufacturing and from Imports, 1996–2023
(prices normalized by the CPI, base price index: January 1996)



Import of consumption goods - food price index is based on the dollar Fisher Price Index, and is converted to shekels. The formula is the average of the Laspeyres Index and the Paasche Index for calculating price increases. The indices do not include beverages, fresh fruits and vegetables. It is important to maintain caution with regard to the increase in the gap between domestic production and import prices that is shown in the Figure, since the mix of imported food products differs from the mix of products produced in Israel, and some of the gap in price increases between the two indices may derive from this difference.

SOURCE: Israel - Central Bureau of Statistics.

Figure 3 also presents the wholesale price indices of industrial food for domestic consumption and the corresponding index for imported industrial food products, both normalized to the Consumer Price Index. The Figure shows that in the 2006–2015 period, imported food prices rose more slowly than prices of domestic production (primarily due to a jump in domestic prices between 2006 and 2008) but the share of imports hardly changed. In 2016, the share of imports began to increase, as stated—evidently due to the "cornflakes reform"—and their relative price fell until 2022.

Another way of testing the liberalization of imports is by examining specific food industries. Table 1 presents both imports as a share of consumption in various food industries and the increase in food imports in these industries in recent years.

The table indicates wide variance among industries in their share of imports. In industries that have import barriers in place due to difficulties contingent on product characteristics, such as short shelf life or need for refrigeration or freezing, the share of imports is small. Such is the case with regard to bakery products and, to some extent, dairy products and processed meat. There are also difficulties specific to Israel involving the characteristics of the Jewish kosher dietary laws.[8] In other industries, the barriers are less restrictive and the share of imports is higher. The table also shows that the rate of increase in imports from 2014 to 2022 was higher in industries in which the share of imports already had been relatively high in 2014.

[8] The labor input required for a product to be recognized as kosher is not the same for all foods.

Table 1: Expenditure on industrial food products and beverages and share of imports, 2022

Subindustry	Total domestic production and imports (NIS million)	Share of imports (%)	Increase in share of imports, 2014–2022 (pct. points)
Industrial food products—total	106,968	24	8
Manufacture of prepared food	1,339	0	0
Manufacture of bakery products	16,098	7	3
Manufacture of dairy products	12,881	7	5
Manufacture of soft drinks, mineral water and other bottled water	6,827	13	5
Manufacture of grain mill products	2,366	15	-2
Processing and preserving of meat	28,752	15	8
Manufacture of wines	2,298	19	3
Processing and preserving of fruit and vegetables	7,399	26	8
Manufacture of malt liquors and malt	2,206	27	3
Manufacture of vegetable and animal oils and fats	4,012	30	13
Manufacture of other food products n.e.c.	11,080	48	9
Manufacture of macaroni, noodles, couscous, and similar grain products	734	57	12
Processing and preserving of fish, crustaceans, and mollusks	4,762	74	17
Manufacture of cocoa, chocolate, and sugar confectionery	3,152	75[a]	24
Distilling blending of spirits	2,578	85	-5

a. The share of imports in 2021 was 65 percent. Some of the increase in the share of imports in 2022 may have been due to a crisis at the Strauss company's confection plant.
Source: Based on Central Bureau of Statistics, Private Consumption Expenditure 2014–2022, Table 4.

b. Food import policy

In recent years, steps have been taken in Israel to reduce the cost of food by promoting competition in retail markets (the Promotion of Competition in the Food Industry Law [the "Food Law"], 2014) and liberalizing imports (the 2016 "cornflakes reform"). In January 2023, a **food imports reform** also went into effect, introducing changes at two levels:

1. Partial adoption of accepted European standards. The difference between Israel and Europe in food standards poses a real obstacle to food imports. Israel is a small country. As such, producing food abroad that meets a specific Israeli standard requires adjustments, whereas manufacturing plants abroad are tailored to work with European standards or those of other large markets around the world. The recent reform did away with some specific Israeli standards but left many others in place.
2. Importing some sensitive food products on the basis of declaration—the "qualifying importer" track: Before the reform, food defined as "regular" was imported on the basis of a declaration, with no need for inspection of each shipment, whereas importing food defined as "sensitive"—

the kind that may pose a health hazard if handled incorrectly—entailed laboratory inspection of each shipment. The reform allows importers defined as "qualifying" to extend the "regular" food-import track to some "sensitive" products.[9]

Despite this progress in reducing food import barriers and its effect on the prices of imports themselves, there are still no significant indications that it has markedly reduced consumer prices. However, the government is promoting further measures to lower import barriers, particularly by introducing a process of relying on European food standards. Today, an importer that wants to import any food product has to align the product with the Israeli standard—a rather costly move that would be avoided if the Israeli standard were harmonized with the European one.[10] The reform currently being legislated—known as "What's good for Europe is good for Israel"—proposes to rely on European food standards and on a declaration by the importer that the product is lawfully sold in Europe.

Adopting European standards would also help to increase the number of importers and diversify the selection of imported goods, thus enhancing competition among the importers themselves. Today, potential importers face steep barriers due to the large investments international manufacturers must make to bring their products into compliance with Israeli standards. Therefore, large-scale importers are almost the only ones that can contract with a plant abroad that would "translate" the product to the Israeli standard. If European standards were fully adopted, importers would be spared these costs and would face a growing competitive threat from other potential importers who could now enter the industry. Lowering entry barriers may even promote the entrance of foreign retailers that enjoy economies of scale and are able to import both international and private label brands at low prices, thus bringing consumer prices down.

It is important to note that easing import restrictions and increasing competition in this field do not promise a full solution, least of all an immediate one, to the relatively high cost of food in Israel. First, domestic factors such as higher taxes on food[11] and kosher dietary requirements make wholesale prices in Israel higher than those abroad. Second, the retail segment stands between the importer and the consumer, and the more this sector is typified by an uncompetitive structure and/or inefficiency, the less assurance there will be that most of the decrease in wholesale prices will reach consumers. This issue entails separate treatment by the relevant regulators and the government. Additional considerations guiding the liberalization of food imports include protecting the public's health and maintaining food security in times of emergency.

[9] A "qualifying importer" must have in place a quality- and safety-assurance program for each product that it imports under a European standard. Sensitive food products that such an importer may import on the regular food import track (declaration) include pasteurized milk products, honey and its products, products containing gelatin and/or collagen, mineral water, low acidity canned food, and food products defined as sensitive because they require transport or storage at temperatures under 8°C, etc. The following were not included in the declaration track: baby food, meat and its products, fish and its products, eggs and their products, nonpasteurized dairy products, alcoholic beverages, food additives, and others.

[10] Other enterprises around the world recognize European and other international food standards. The Israeli standards are less recognized.

[11] In countries that tax food more heavily—such as those that impose standard Value Added Tax rather than reduced VAT on food, as is the case in Israel—food prices are higher but the resulting tax receipts may replace other taxes. For this reason, the effect of the tax on consumers' disposable income is unclear.