

# Israel's Economic Strength & Navigating it's Dynamics During Wartime

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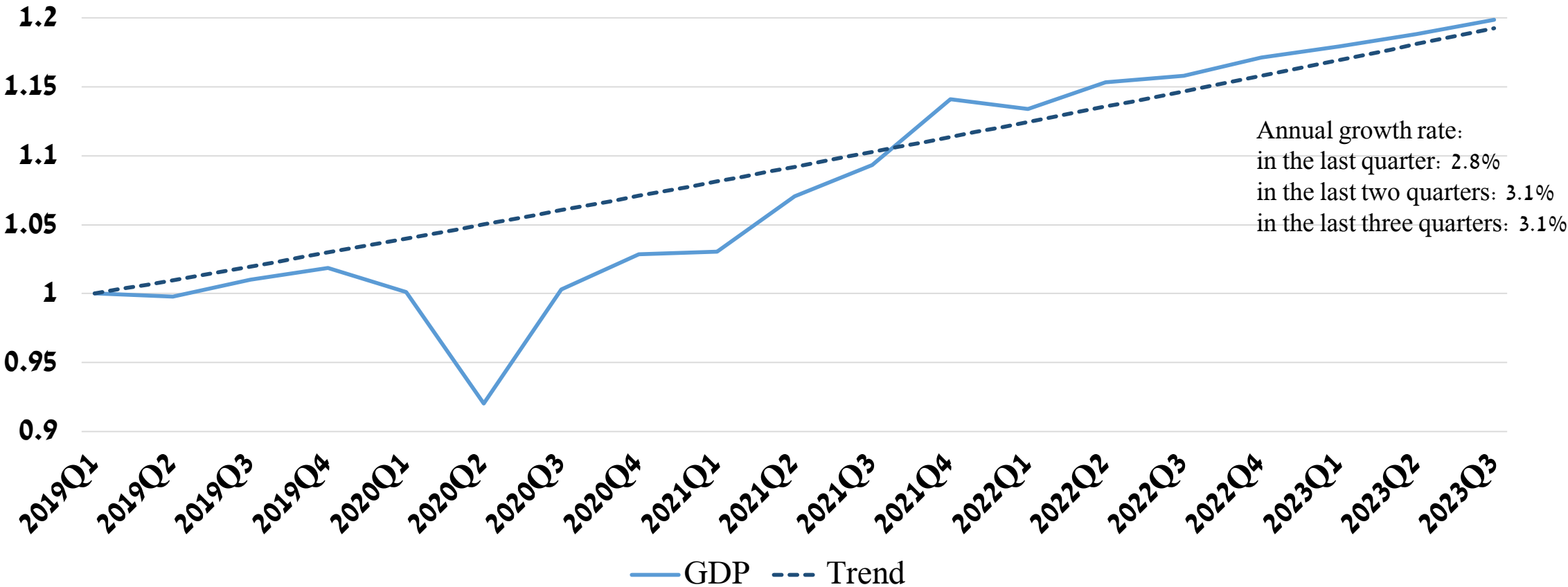


# Economic Trends and Developments in Israel prior to the war



# GDP growth according to long-term trend

**GDP in relation to trend**  
quarterly, constant prices, index: Jan 2019=1  
data for 2023 Q3 is based on estimations

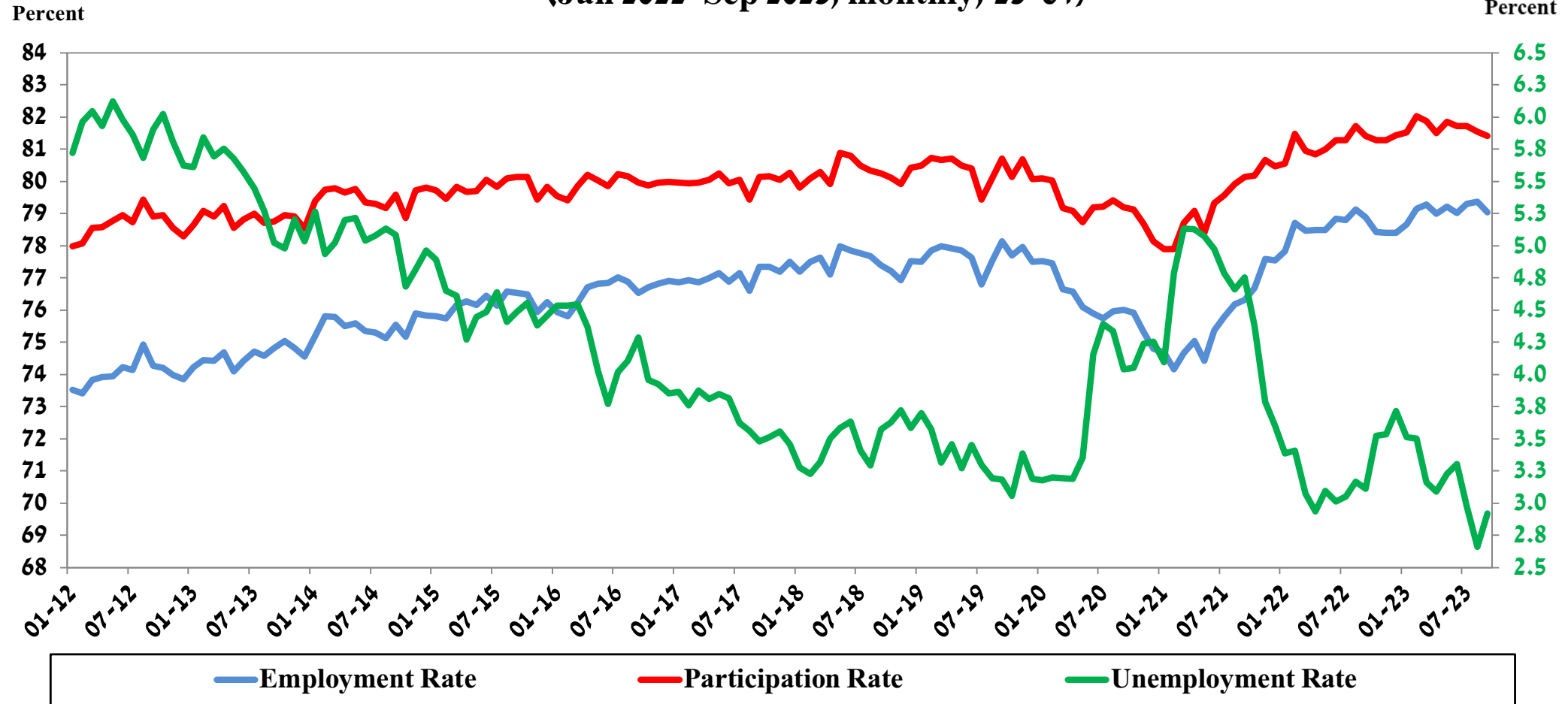


Source: Bank of Israel and Central Bureau of Statistics.



# The labor market was in a full employment environment prior to the war

**Main Labor Market Indicators**  
(Jan 2012-Sep 2023, monthly, 25-64)



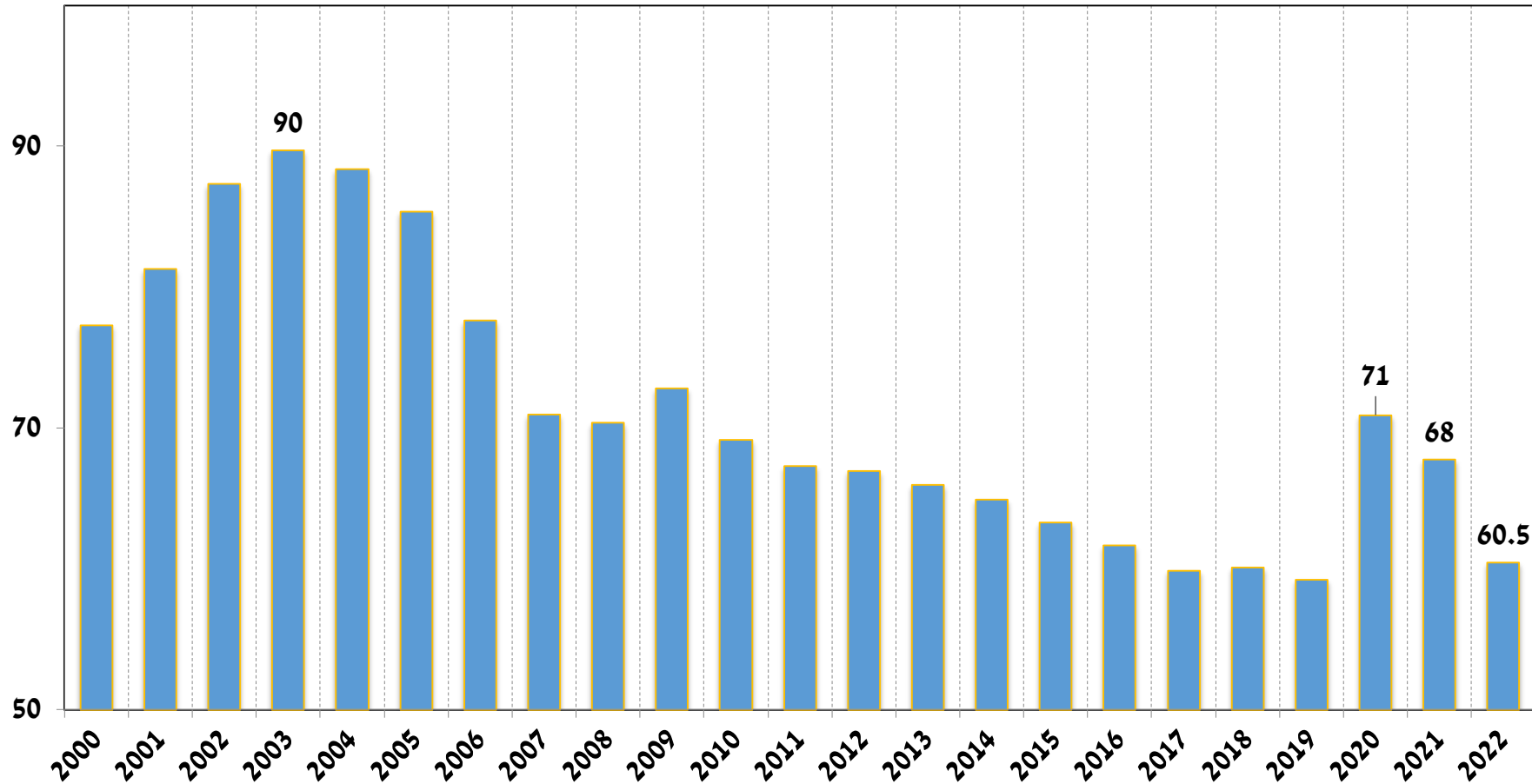
\* seasonally adjusted

Source: Based on Central Bureau of Statistics Labor Force Survey.



# Responsible fiscal policy brought the economy to a desired debt to GDP ratio

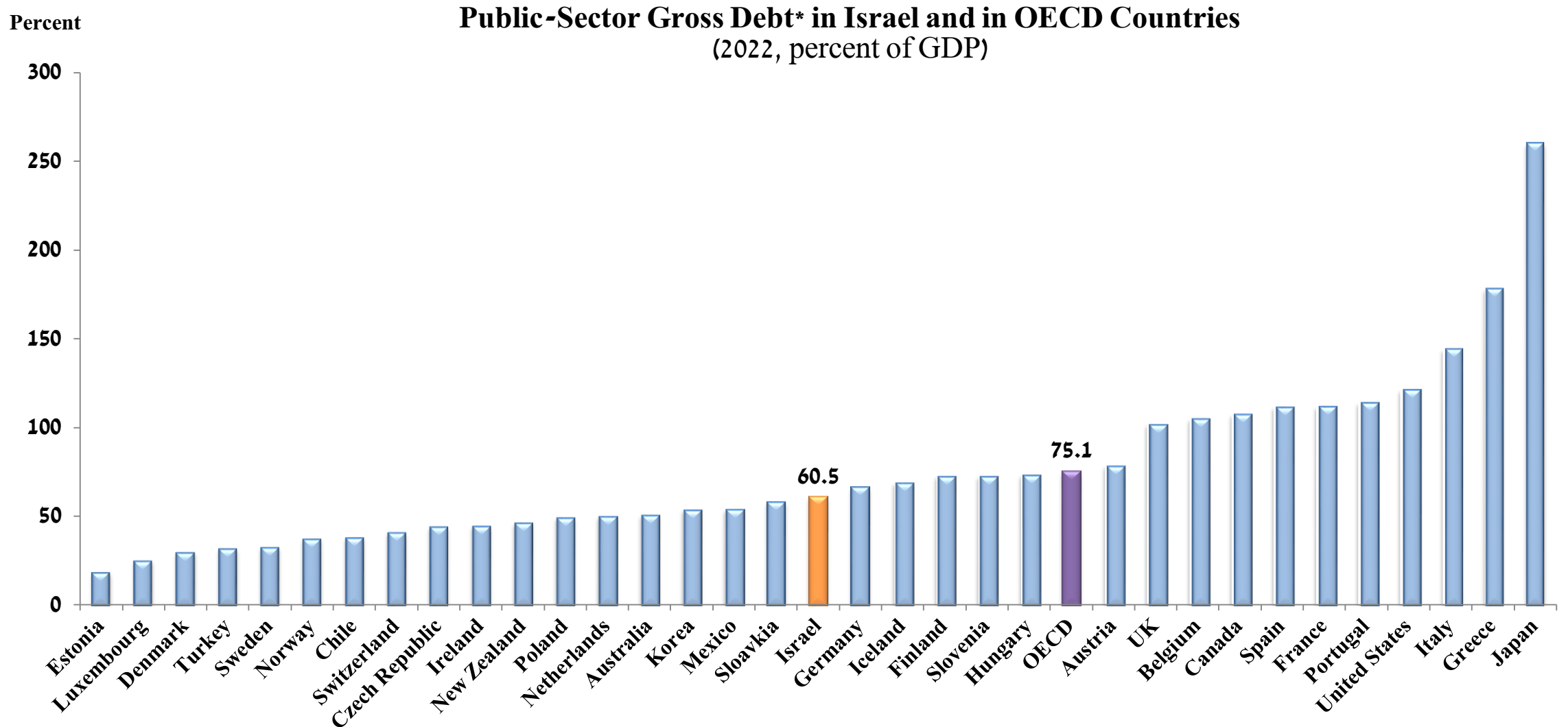
**Gross Public Debt**  
(2000-2022, percent of GDP)



Source: Bank of Israel



# Debt to GDP ratio in Israel VS OECD countries

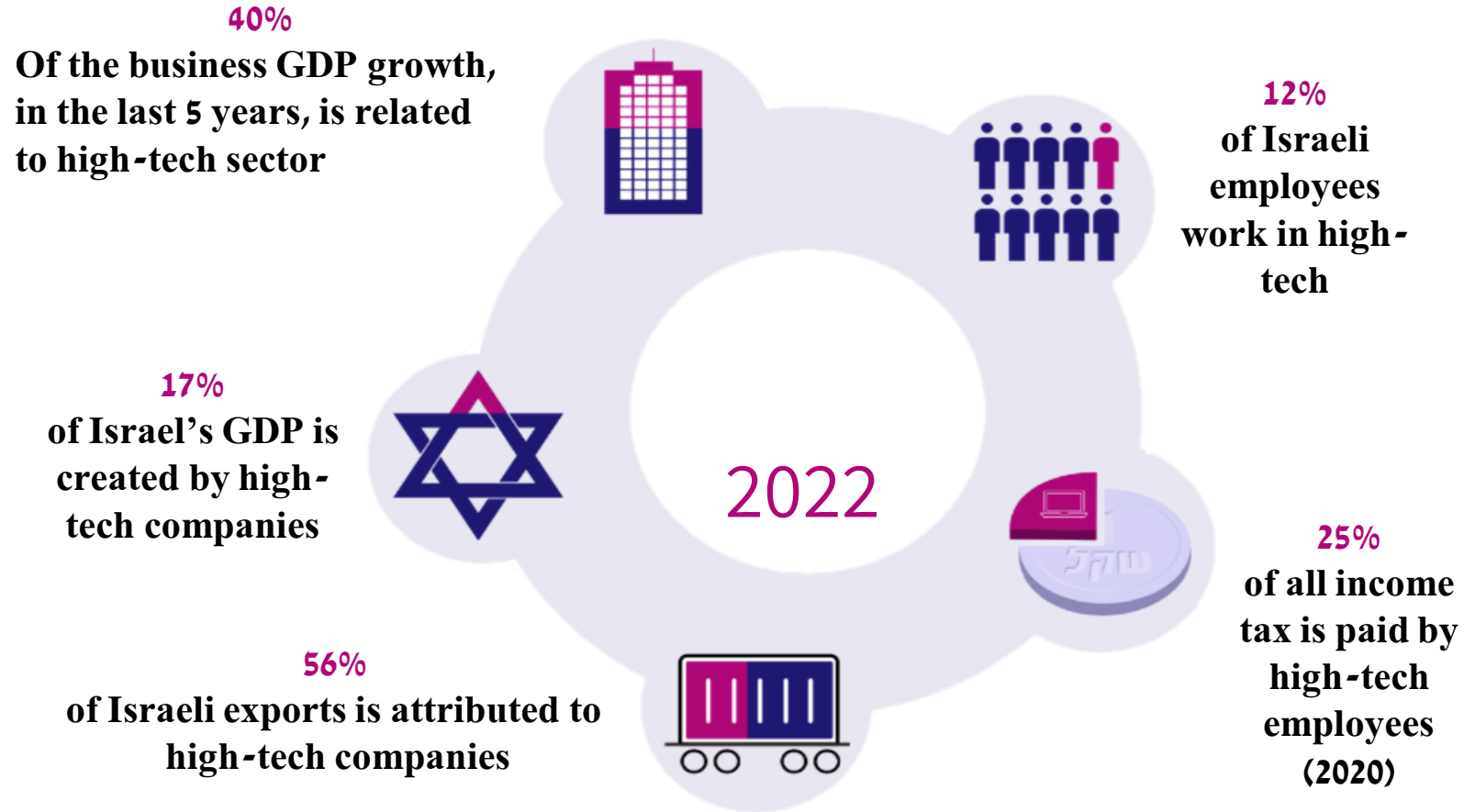


\* OECD average is a simple average (excluding: Turkey, Mexico, Chile, Estonia, Latvia).

Source: Bloomberg (IMF) and Bank of Israel



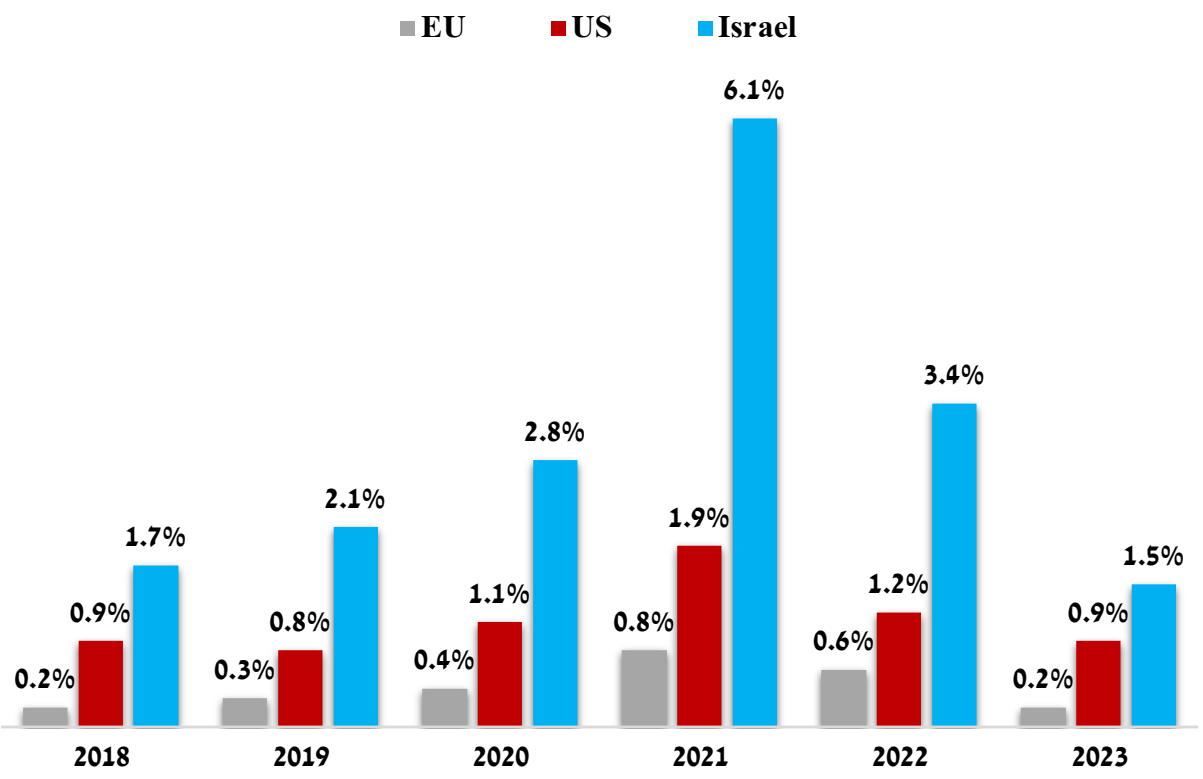
## The high-tech sector : A major engine of the economy



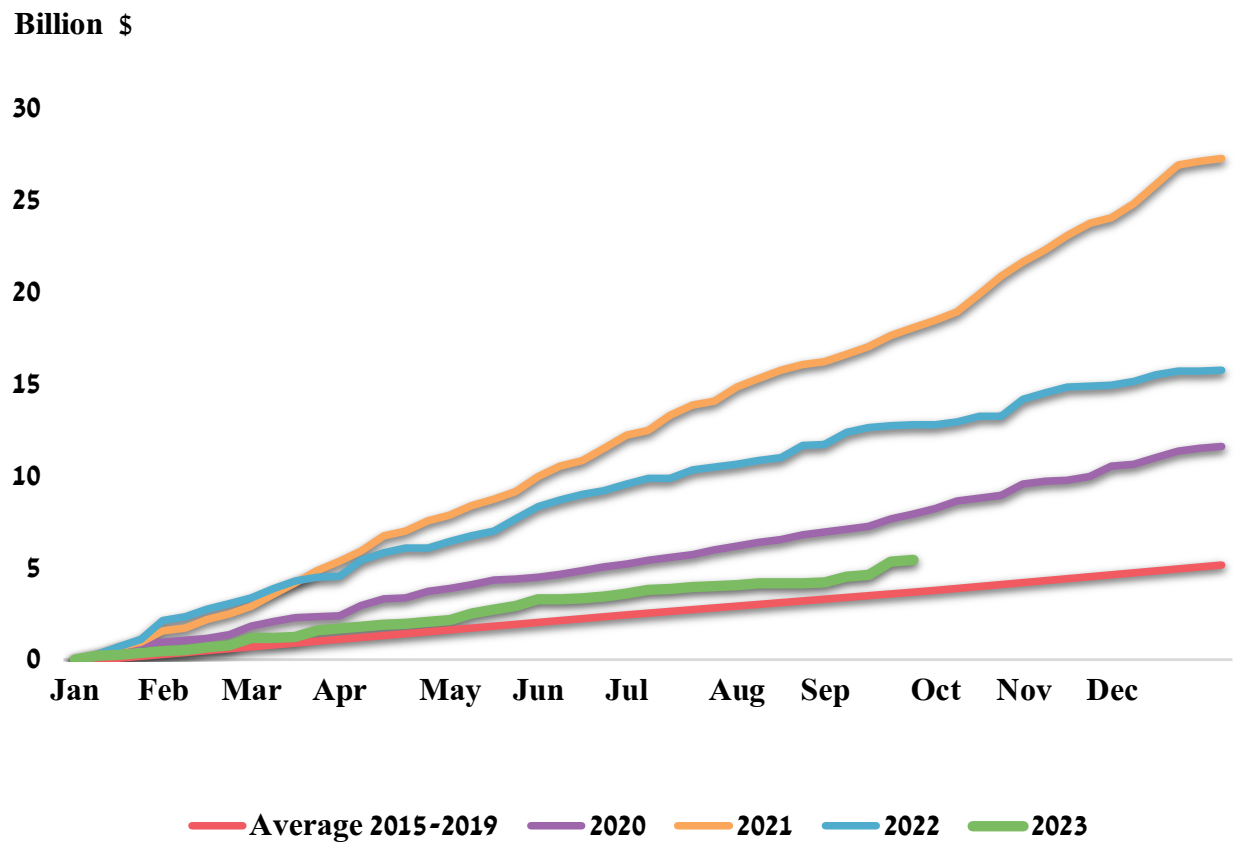
Source: The Innovation Authority report and BOI's analysis

# The high-tech sector: capital raised back to 2015-2019 level

Capital raised as a percentage of GDP



Capital raised each year by month



Although Israel accounts for less than 0.5% of world GDP, Israeli unicorns account for 8% of total

Sources: The Innovation Authority, IVC, Meitar, CBS, BOI, National Economic Council and TASE, Bank of Israel’s analysis for BLOOMBERG data



# The high-tech sector: Diversified & Matured

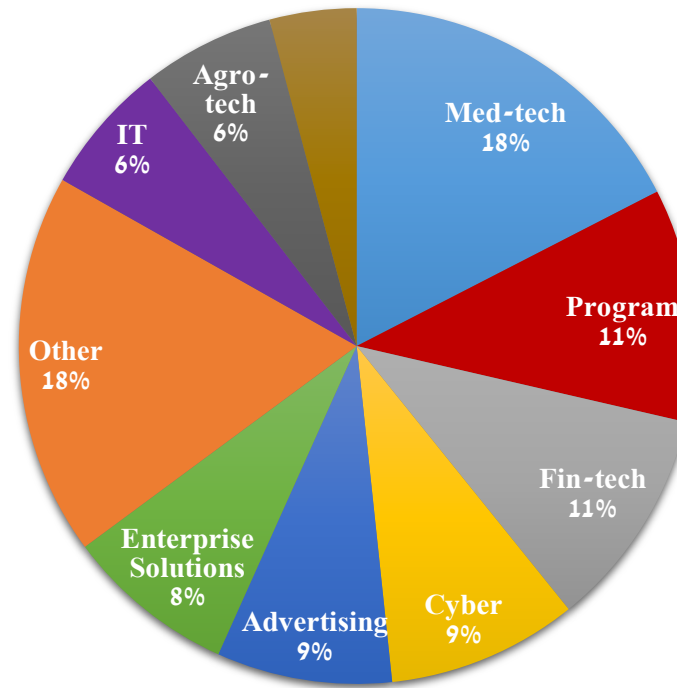
- **DOT-COM companies**

- Centralization in individual sub-sectors (Telecommunication).
- Business immaturity (Dream companies).

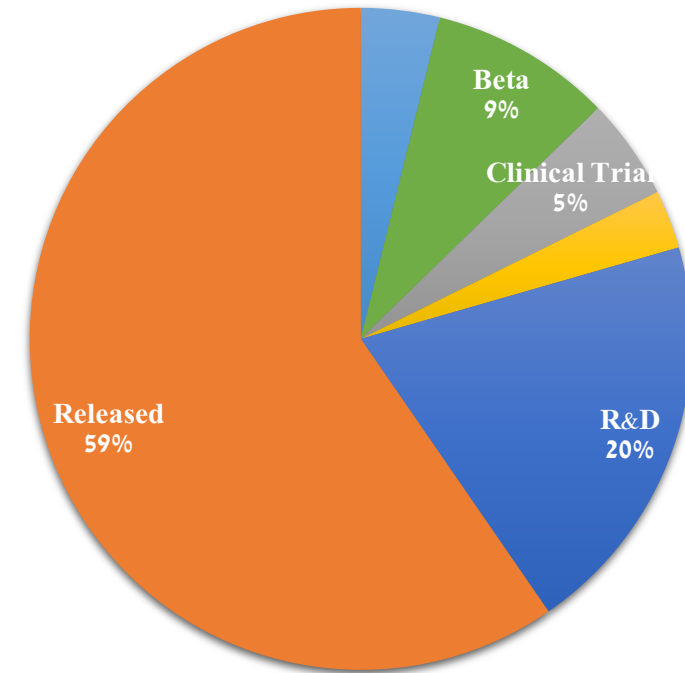
- **Today**

- A more “decentralized” High-tech
- A large majority of the companies are in the production stage

Companies Distribution by Sub-Sectors



Companies Distribution by product stage

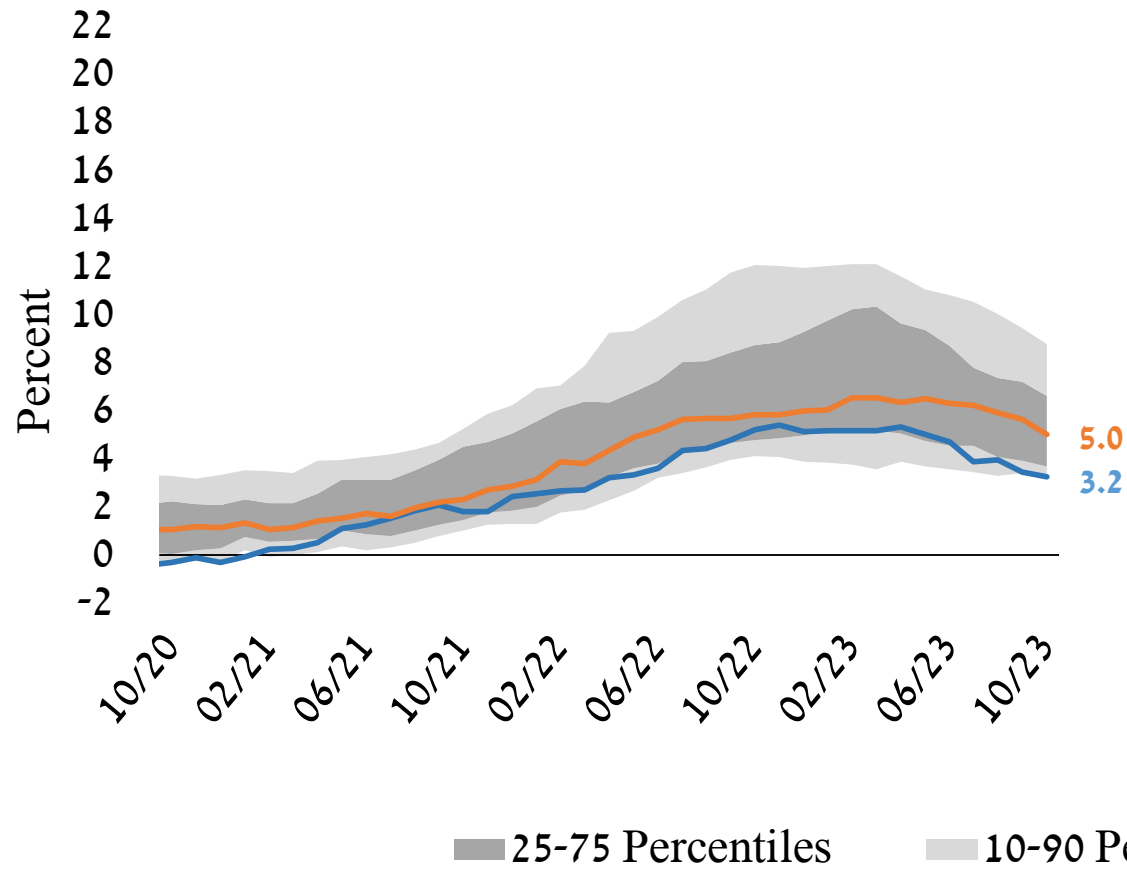




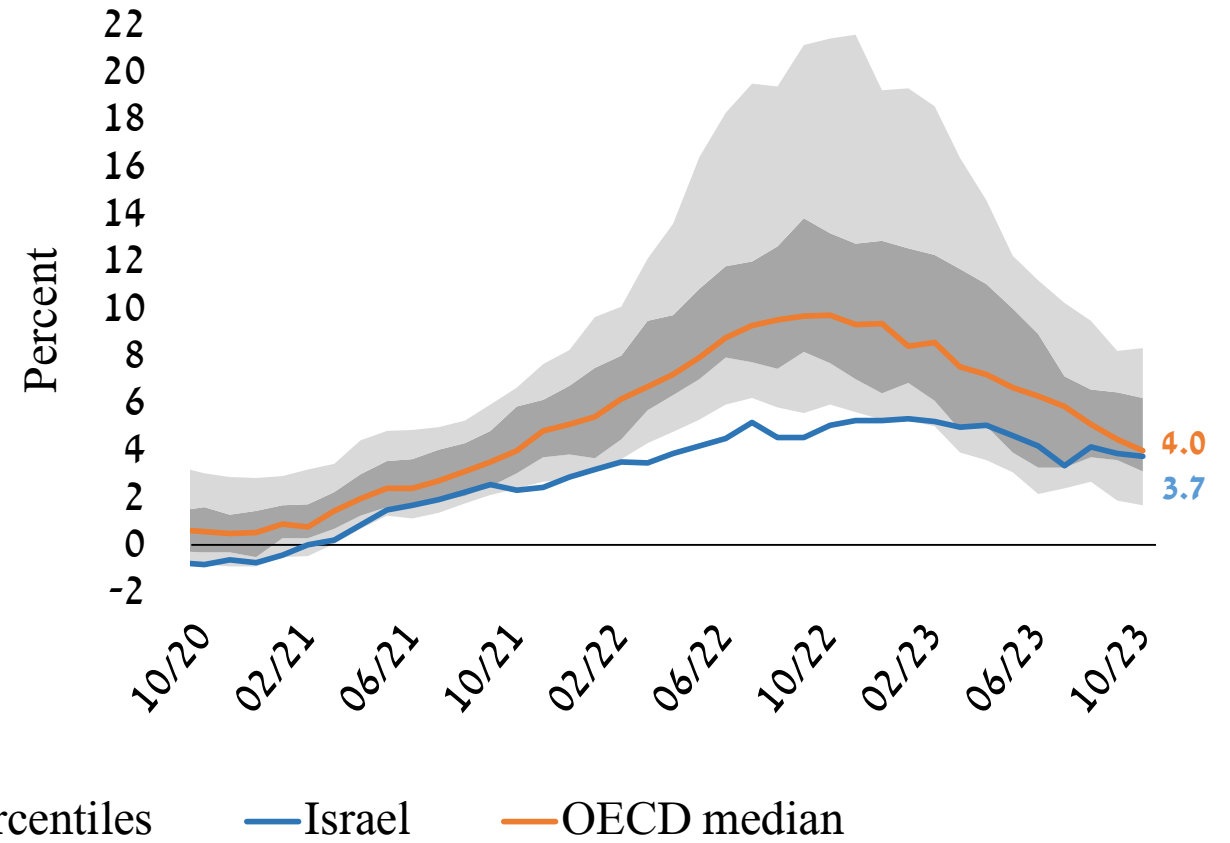
# Inflation in Israel is lower than in most OECD countries

**Inflation in Israel and OECD Countries, Annual rate, October 2020 – October 2023**

Annual Inflation excl. Food & Energy



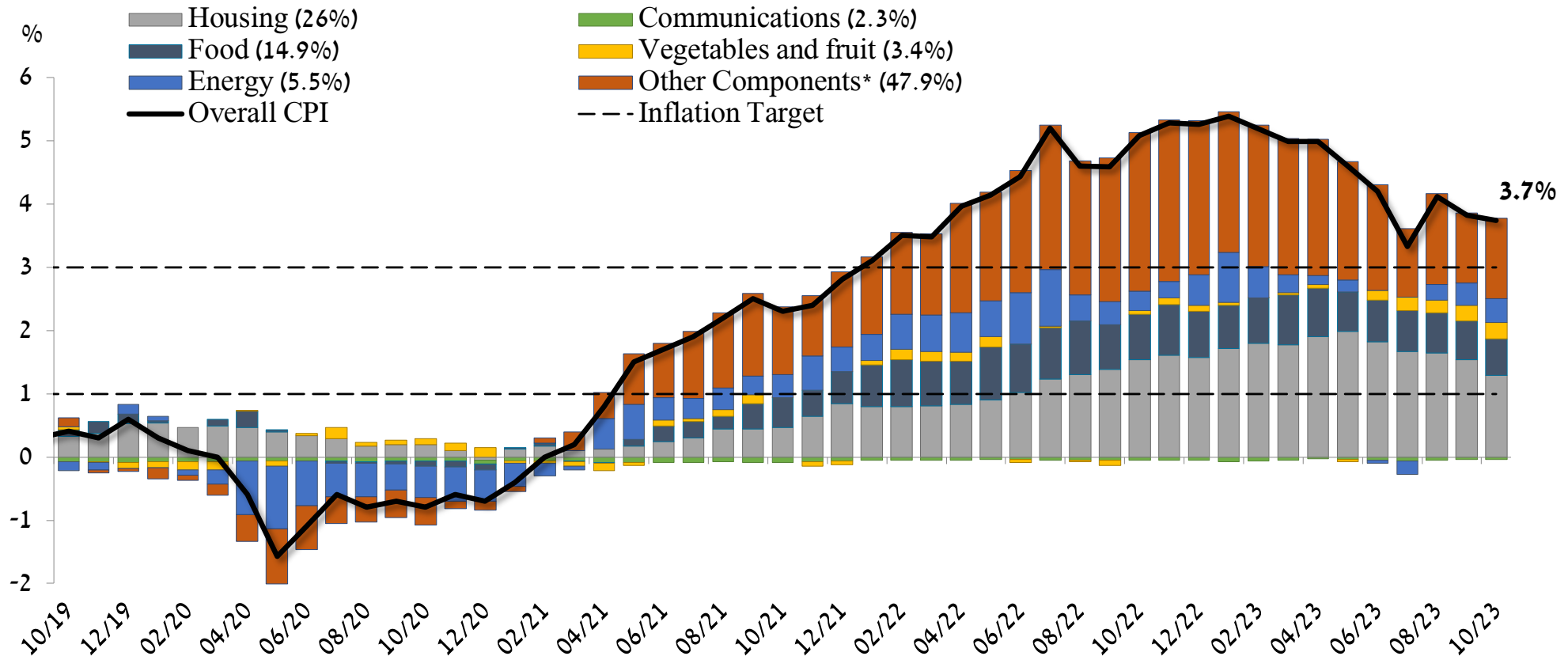
Annual Inflation



Source: Bank of Israel & OECD

# Inflation is moderating

## Inflation Rate - Contributions Annual Rate, October 2019 to October 2023

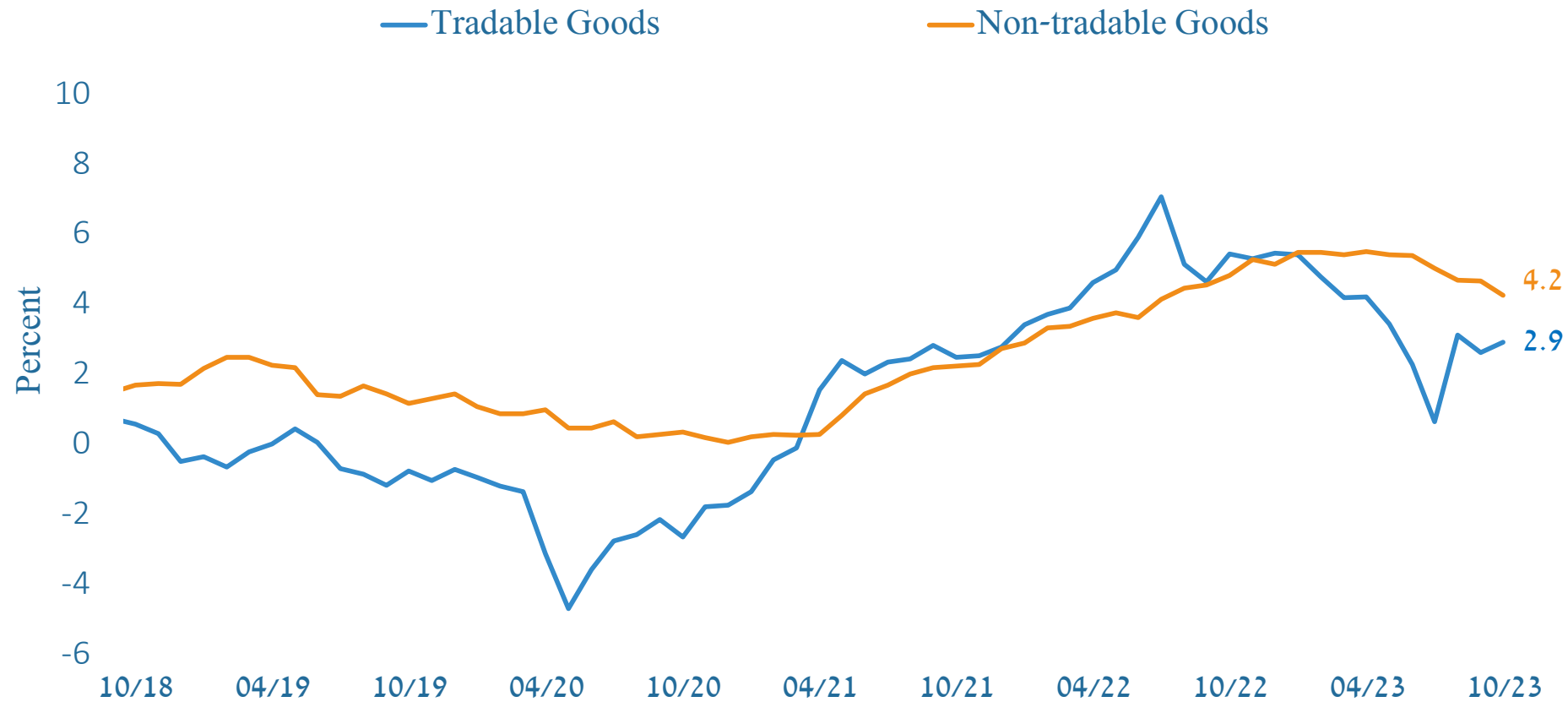


\* "Other components" includes Health; Education, Culture and Entertainment; Furniture and Household Equipment; Clothing and Footwear; Miscellaneous; and the Dwellings Maintenance and Transport components minus the sub-components relating to energy prices.

Source: Based on Central Bureau of Statistics

# Non Tradable inflation is moderating

**Tradable & Non-Tradable**  
Annual rate, October 2018 to October 2023

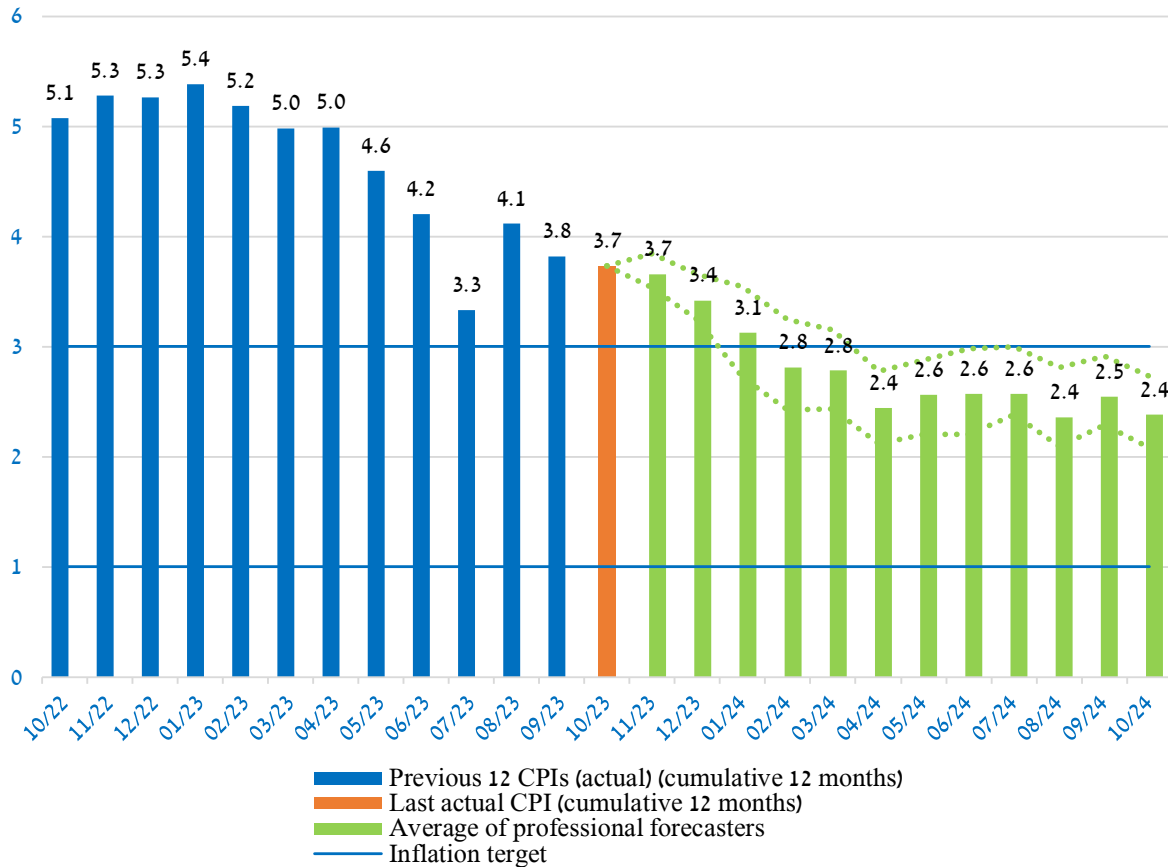


Source: Based on Central Bureau of Statistics

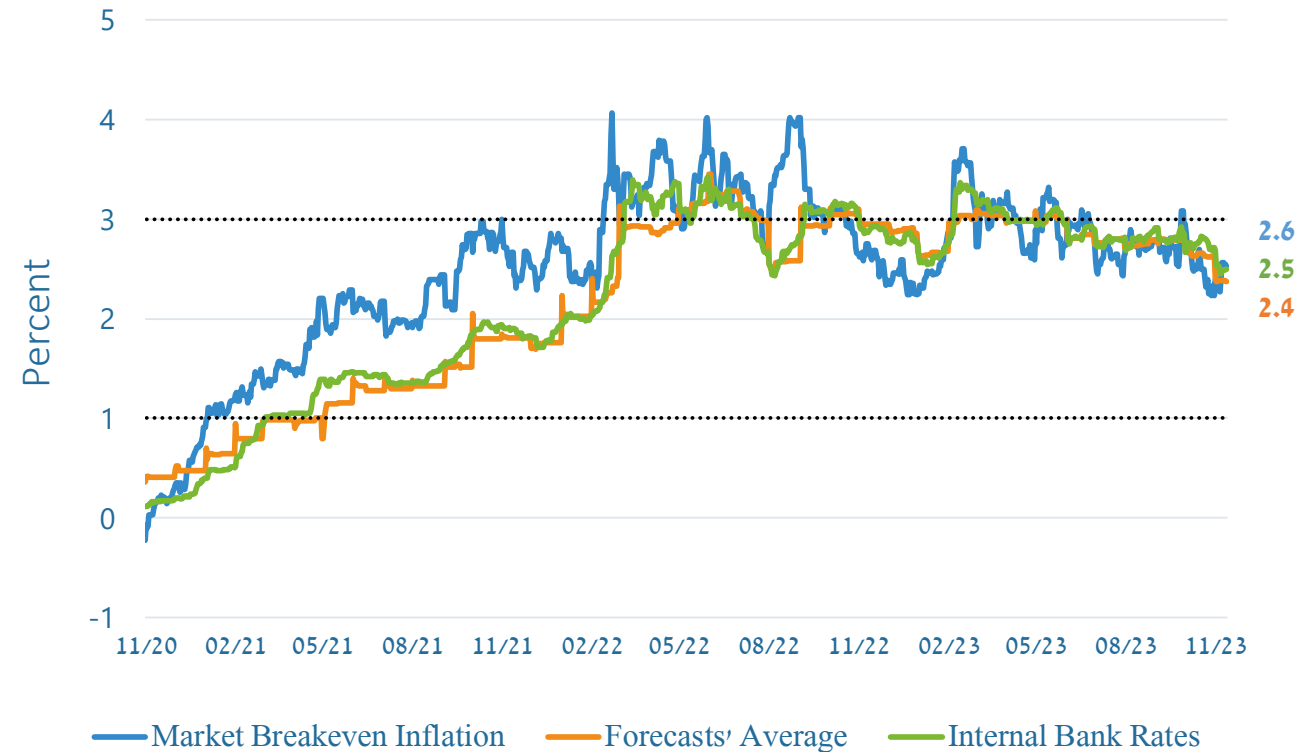


# Inflation is expected to converge to target by first half 2024

**12-month inflation: Actual CPI and its expected development according to forecasters**



## One year Inflation Expectations

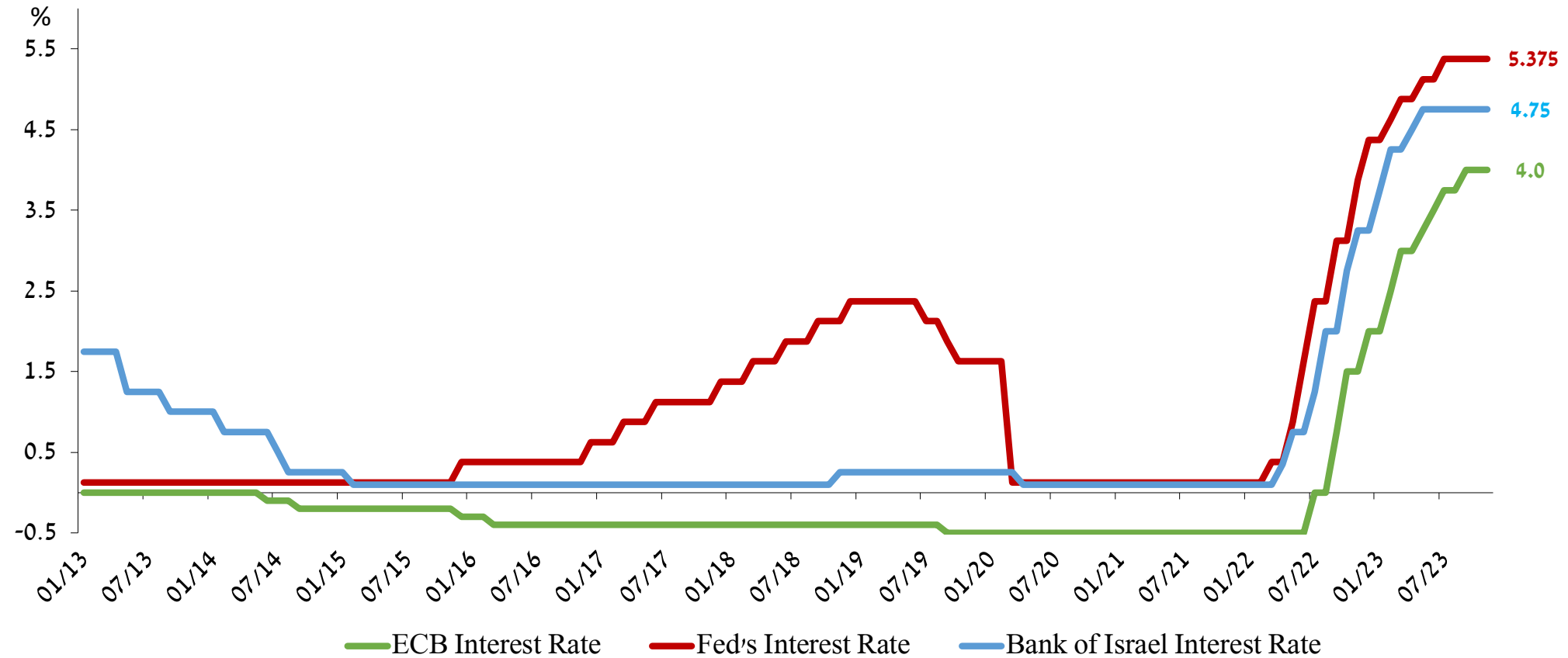


Source: Bank of Israel



# Global rates moving together in recent tightening cycle

**BOI, FED and ECB Interest Rate**  
(Jan 2013-Nov 2023, Monthly Average)



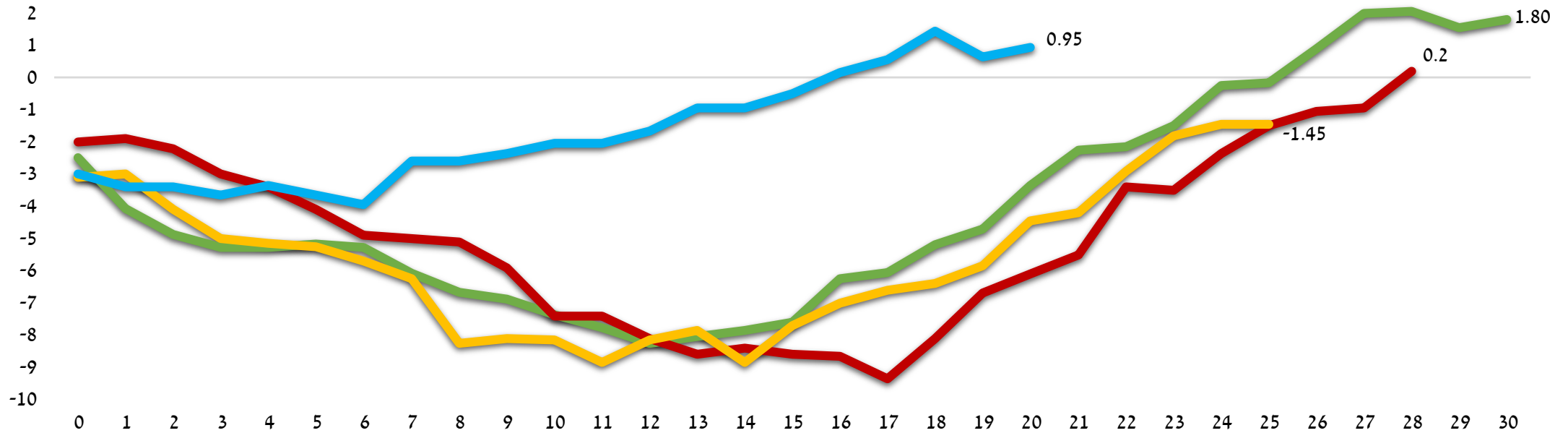
Source: Based on Bloomberg & Central Bureau of Statistics.



## The Bank of Israel reacted relatively fast

The central bank's interest rate minus inflation, in proportion to the deviation of inflation from its target

Central bank's interest rate minus inflation



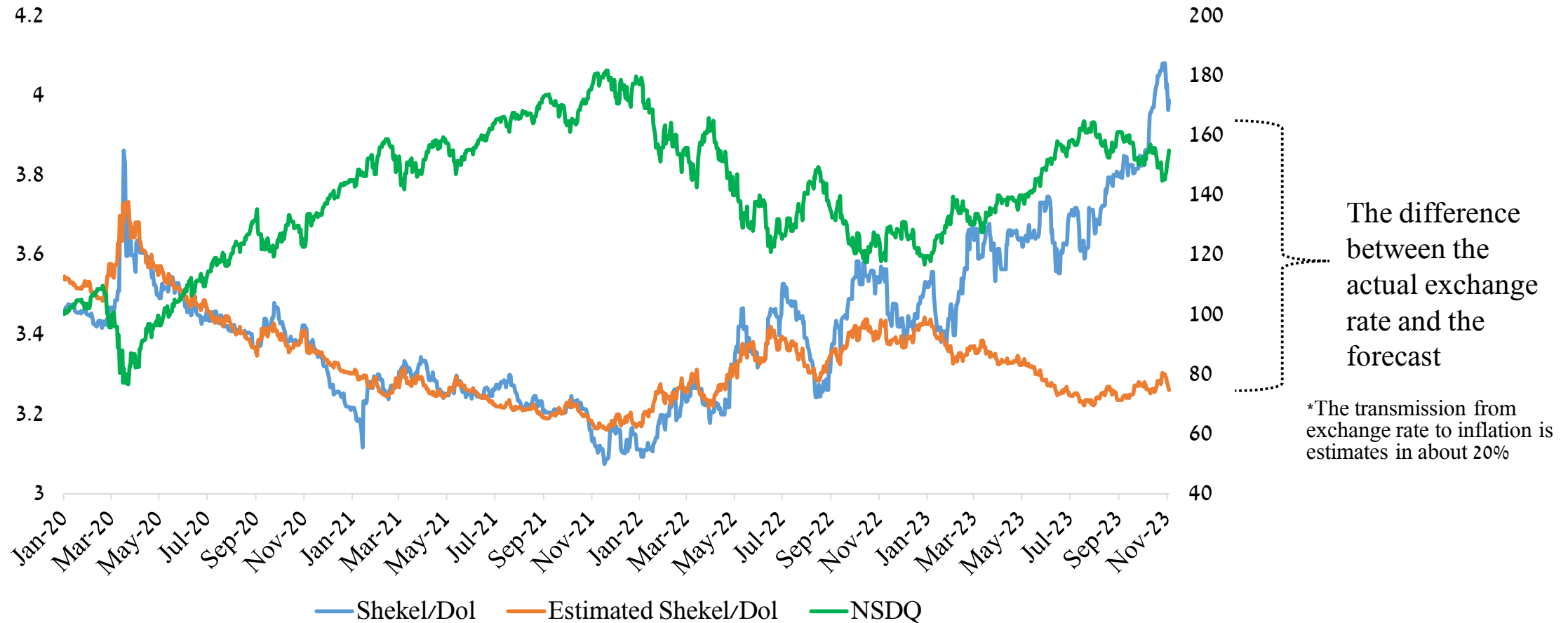
Number of months since inflation exceeded the upper limit of the inflation target

USA Europe UK Israel



## As of September 2023, an estimated excess depreciation of about 15%

The Nasdaq index, the exchange rate and the predicted exchange rate based on regressing the exchange rate on Nasdaq



Sources: BOI's analysis for Bloomberg data and CBS's data

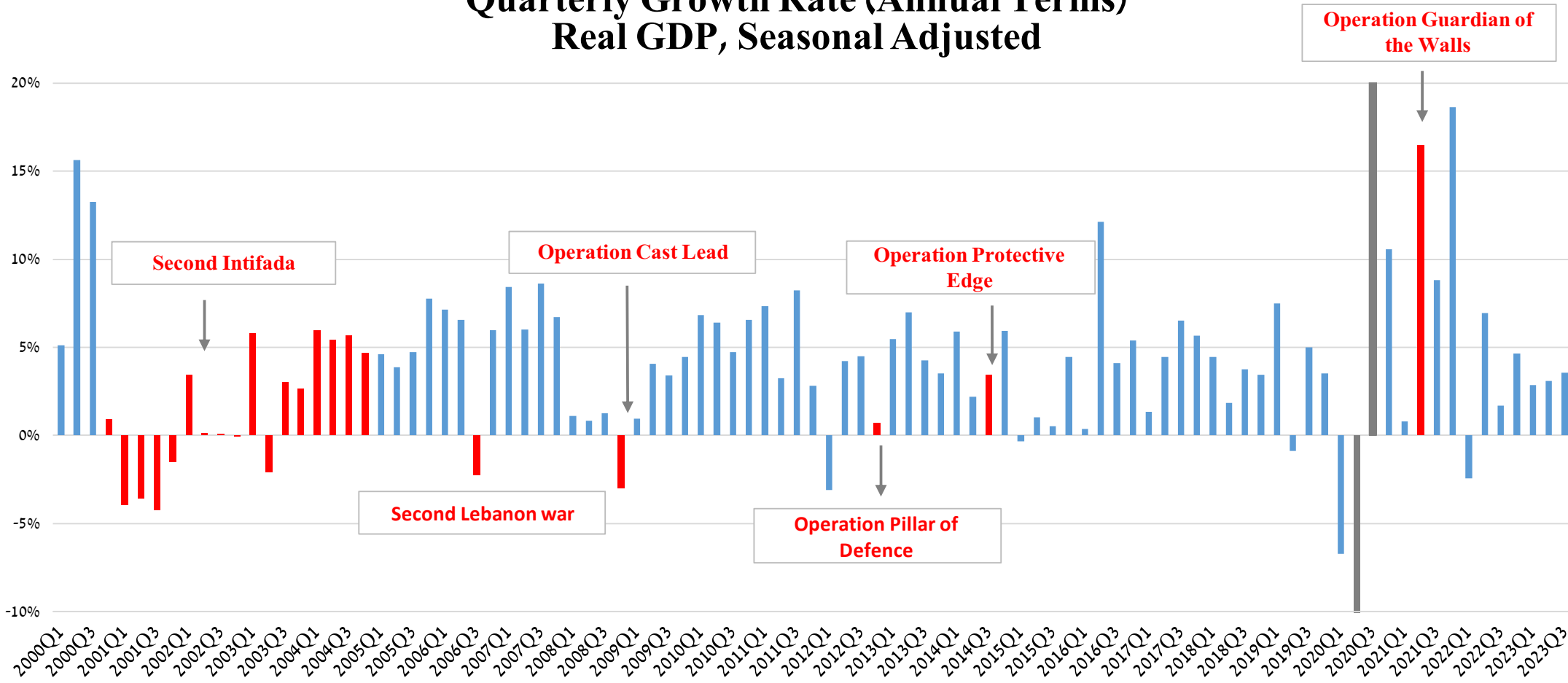
$$\log(ILS\_USD_t) = \beta^0 + \beta^1 * \log(NDX_t) + \varepsilon$$



# The Developments Due to the War

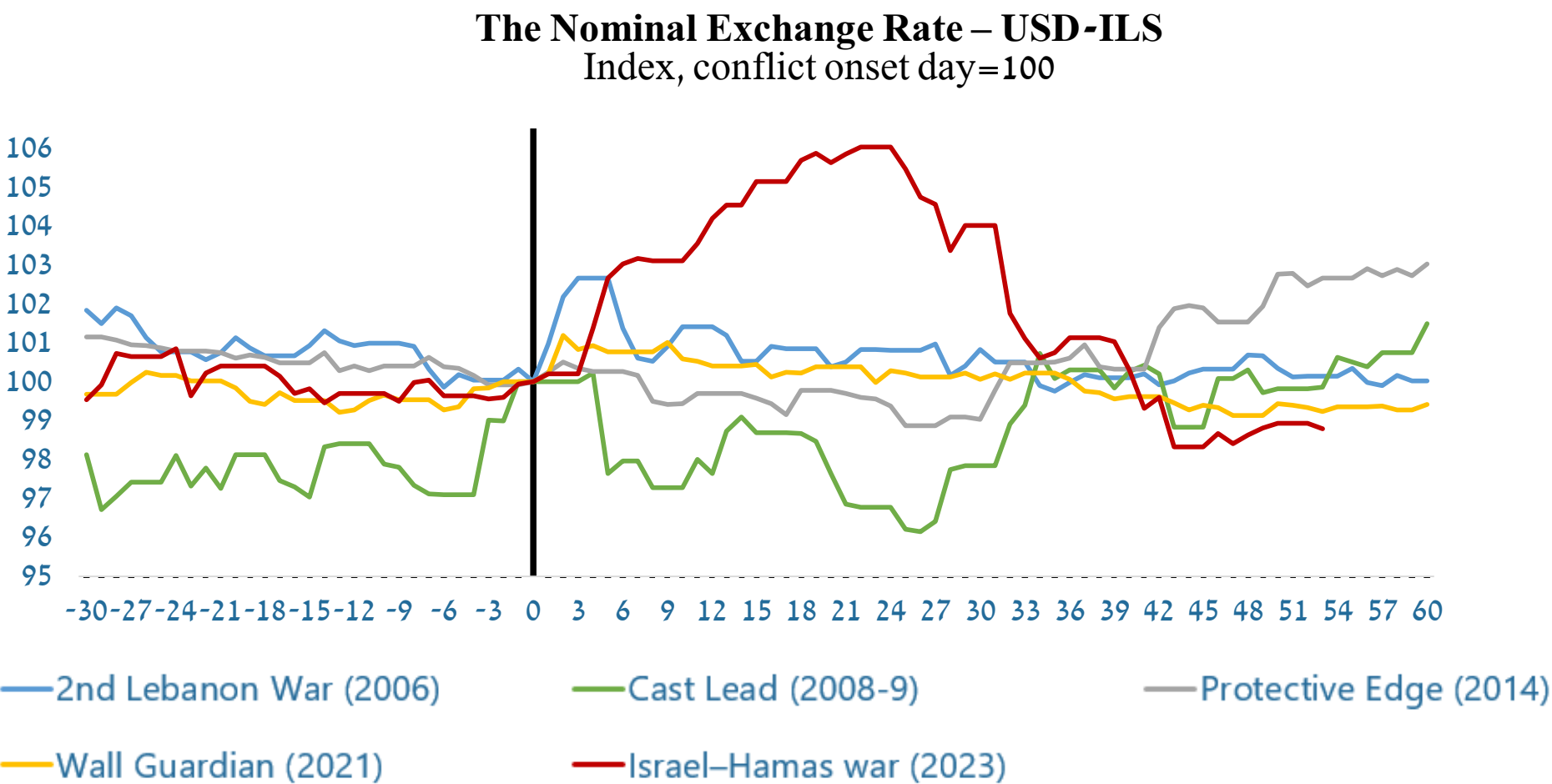
# The Israeli economy recovers rapidly after geopolitical conflicts

Quarterly Growth Rate (Annual Terms)  
Real GDP, Seasonal Adjusted



Source: BOI's analysis for CBS data

# Initial depreciation was stronger than in previous conflicts but the shekel strengthened below its prewar level



Source: Bank of Israel

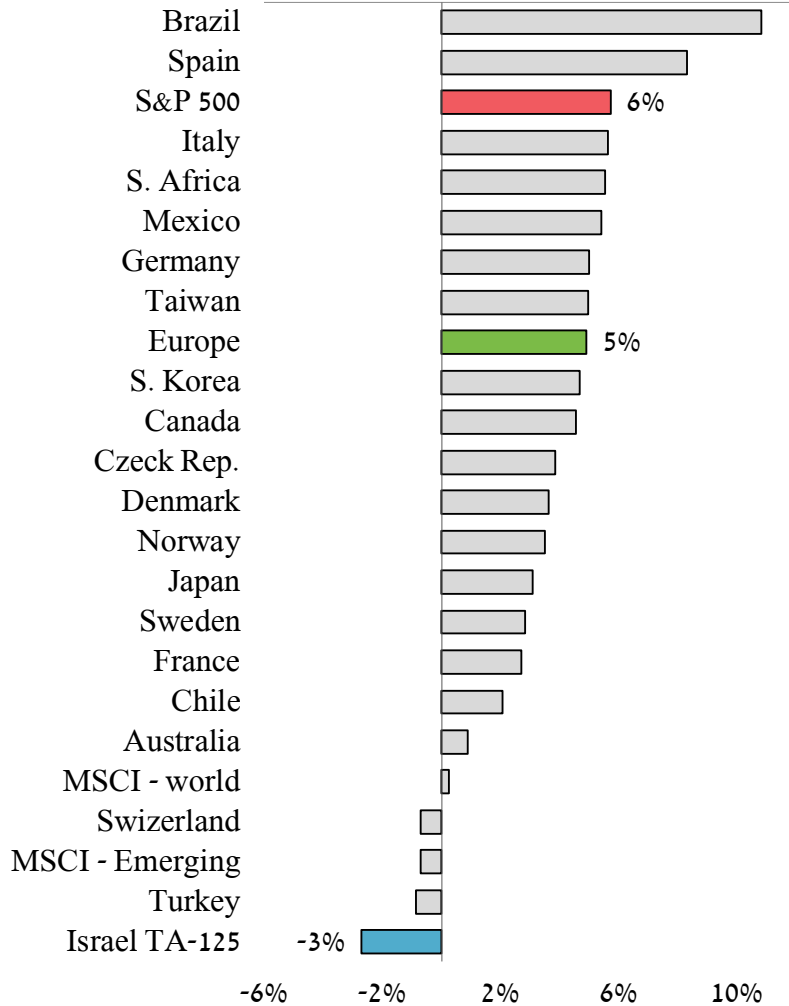
## Steps taken by the BOI in connection with the “Swords of iron” war

Monetary policy and financial stability	Banking, credit and Payments	Economic advice to government
<ul style="list-style-type: none"> <li>✓ Program in the FX market <ul style="list-style-type: none"> <li>✓ Up to \$30 billion FX sales</li> <li>✓ Up to \$15 billion SWAP transactions</li> </ul> </li> <li>✓ A program for government bond repo transactions with institutional entities.</li> <li>✓ Corporate bond repo transactions with institutional investors</li> <li>✓ Low-interest loans to banks - conditional on providing credit to SME'S at low interest rates, at a scope of up to NIS 10 billion.</li> </ul>	<ul style="list-style-type: none"> <li>✓ A program for deferring loans, free of interest and fees for victims and reserve soldiers.</li> <li>✓ An additional program deferring loans for overall population.</li> <li>✓ Enhancing remote banking services</li> <li>✓ Mitigating the abuse of credit cards and accounts of victims.</li> <li>✓ Regulatory and accounting relief</li> <li>✓ Easing of financial restrictions due to credit distress.</li> <li>✓ Guideline for conservative policy in dividend distribution and LLP.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Publication of an updated macro-economic forecast for the Israeli economy.</li> <li>✓ Micro-level economic analysis of economic activity of various industries</li> <li>✓ Estimates of economic damage to the economy</li> <li>✓ Ongoing work vis-à-vis relevant government entities</li> <li>✓ An advisory role for fiscal plans and framework</li> </ul>

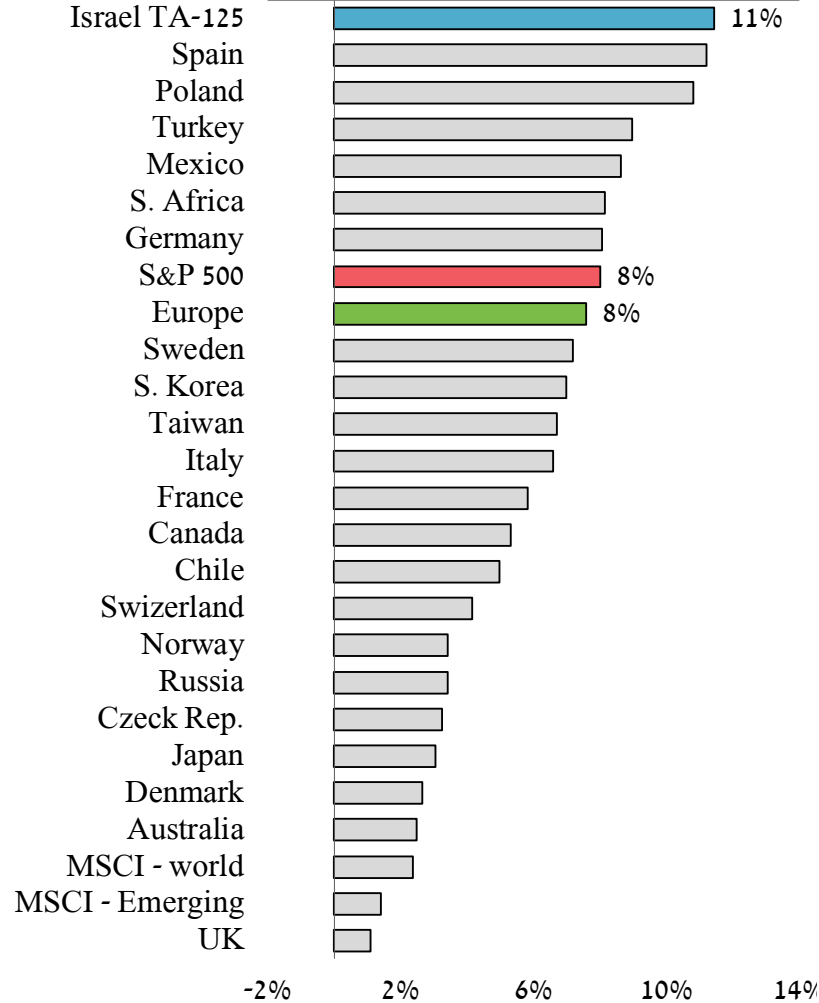


# Stock indices

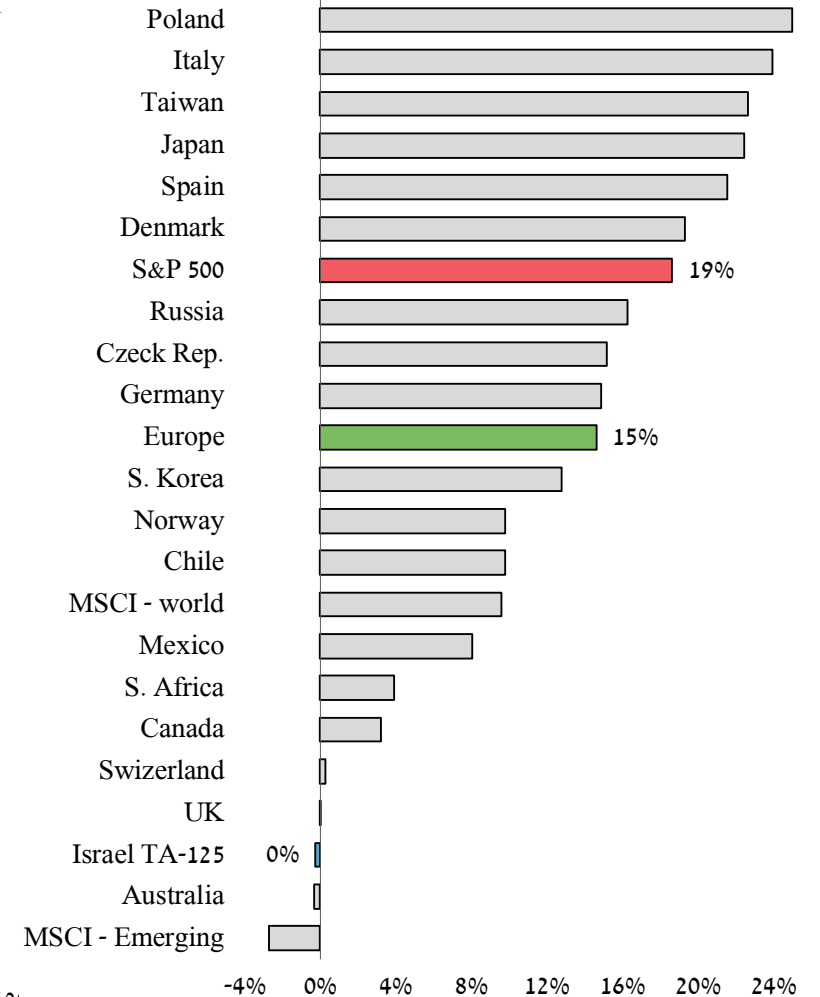
Since 6.10.2023



Since BOI Last Meeting (23.10)

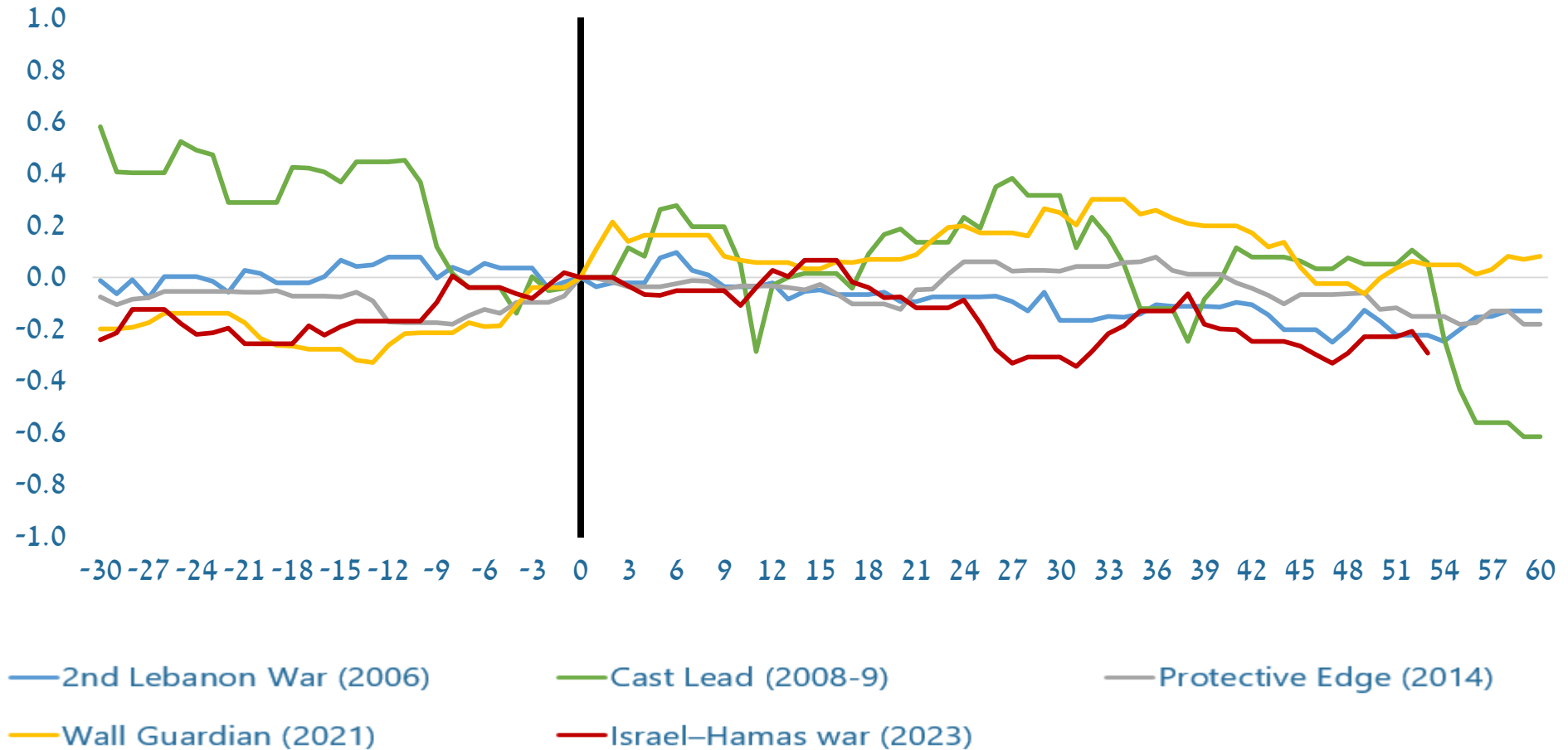


YTD



# Long run inflation expectations remained stable

## Forward Breakeven 5-10 Year Inflation Expectations Change from the conflict onset day, in percentage point



Source: Bank of Israel

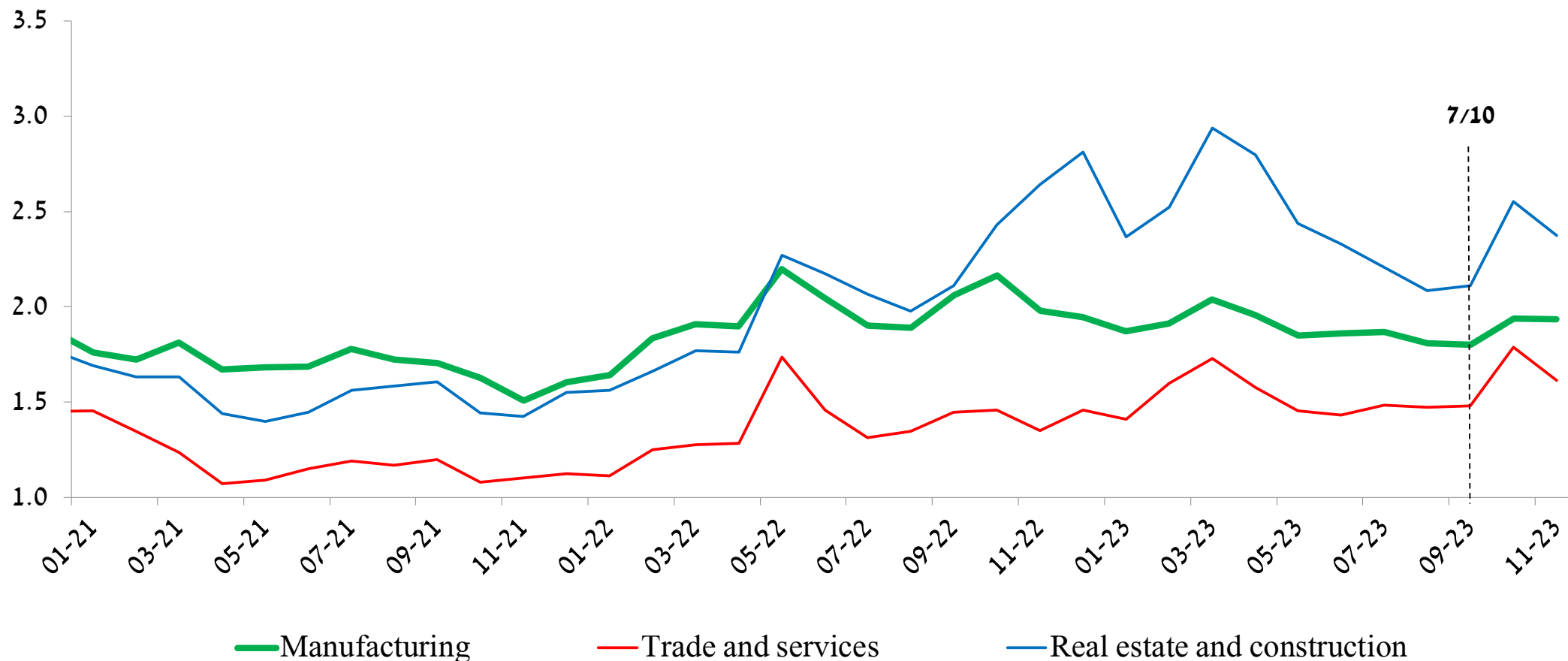


# An increase in corporate bond spreads since the eruption of the war and recent moderation

**Weighted average of spreads between CPI-indexed corporate bond yields (excluding structured and convertible) and yields on parallel government bonds, by industry**

Monthly average, January 2021–November 2023

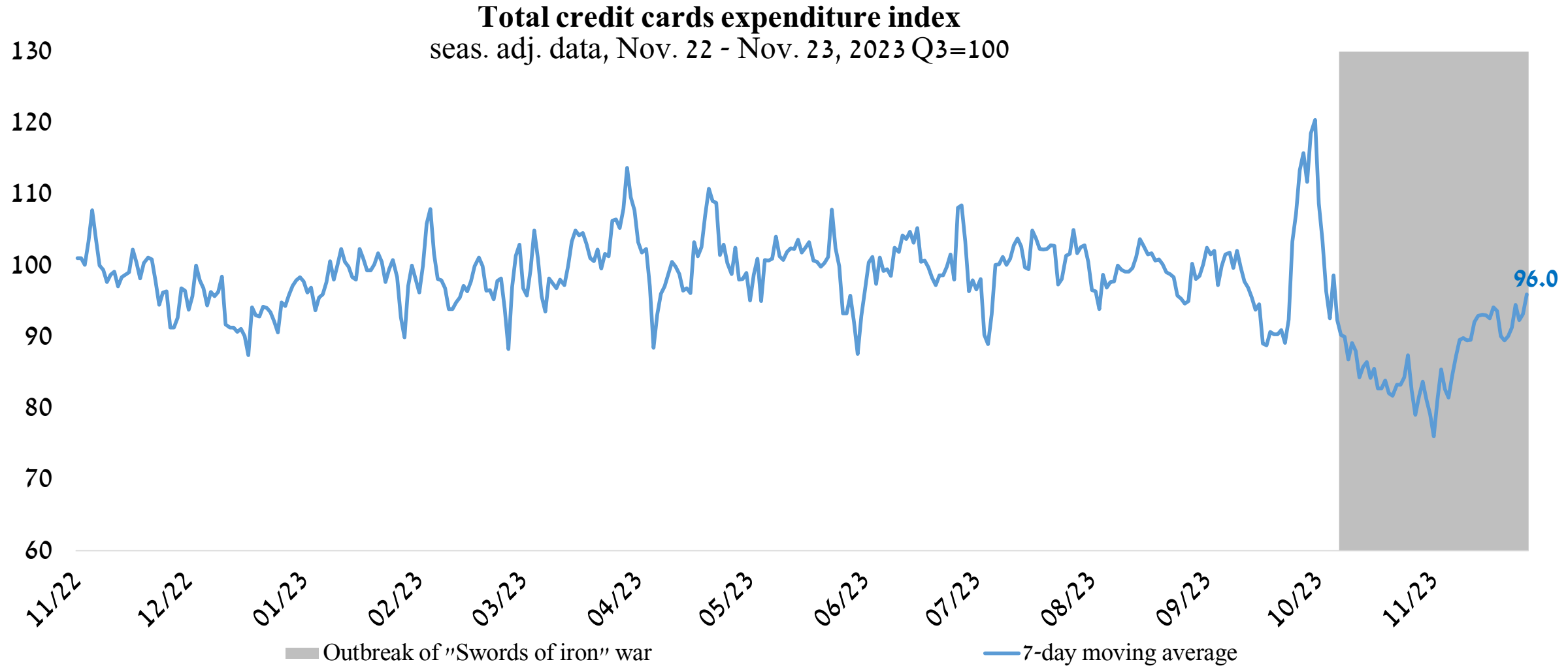
Percentage points



Source: Bank of Israel



# Credit card expenditures declined and recovered




Source: Based on Shva seasonally adjusted data





## Budgetary costs of the war (expenditures plus loss of income) are expected to total 10 percent of GDP

### Expected fiscal impact of the “Swords of Iron” war (NIS billion)

	Total 2023–2025
Gross defense expenditures	107
Compensation for direct and indirect damage	22
Other civilian expenditures	25
Interest on government debt	8
<b>Additional gross expenditures</b>	<b>163</b>
Loss of tax revenue	35
<b>Total gross effect of the war</b>	<b>198</b>

a Including expenditures financed through the military aid from the US government, and before reductions in other expenditures in the defense budget.

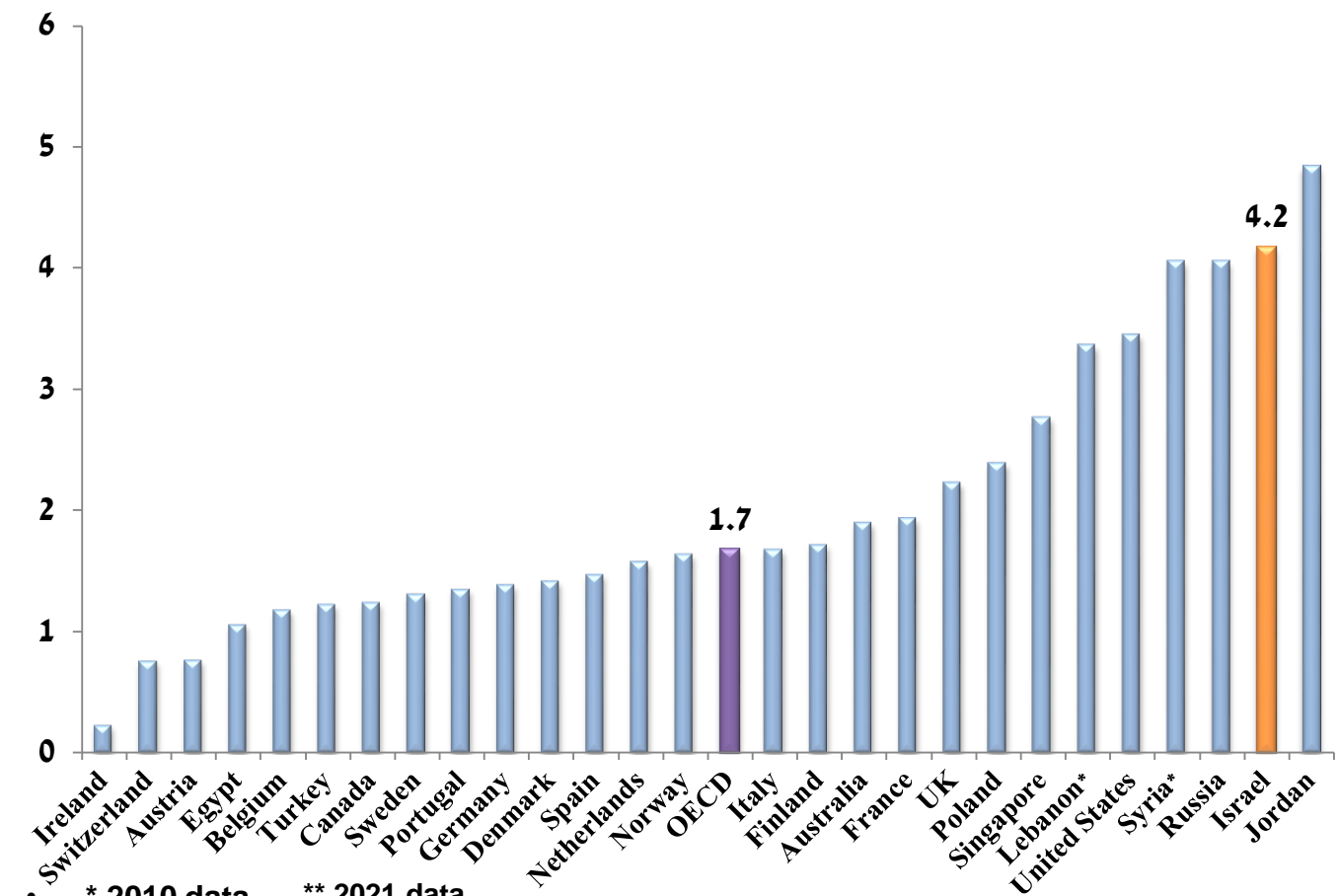
b Including taxes (excluding VAT on defense imports), National Insurance Institute fees, and health tax.

Source: Research Department Staff Forecast, Bank of Israel, November 23, Table 2



# Israel military relative expenditure was high but declining prior to the war

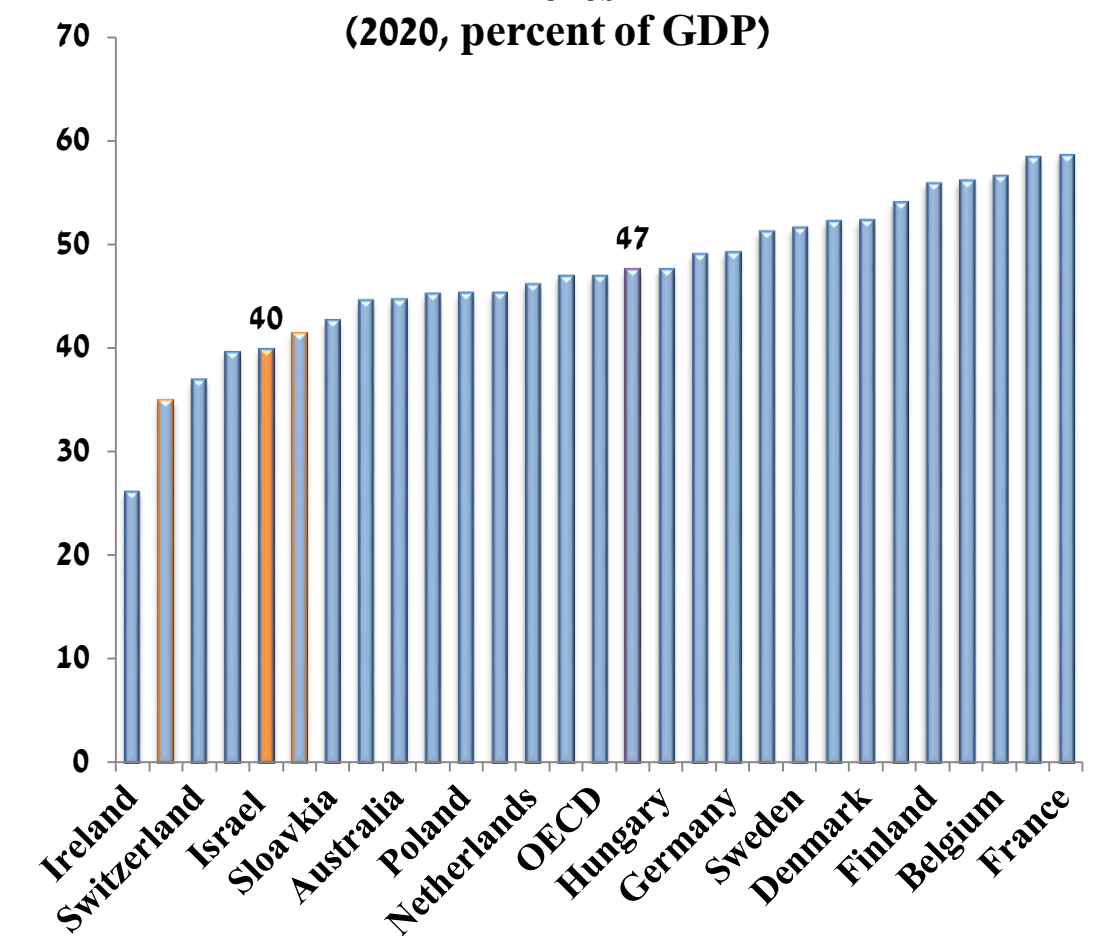
**Military Expenditure in Israel and in selected Countries  
(2022, percent of GDP)**



- \* 2010 data    \*\* 2021 data
- OECD average is a simple average (excl. Iceland).

Source: Bloomberg (World Bank - SIPRI) and Bank of Israel


**Civilian Public Expenditure Excluding Interest  
(2020, percent of GDP)**



•The data is calculated by deducting the net debt interest payments and defense expenditure from the general government total outlays. OECD average is a simple average (excluding: Turkey, Mexico, Chile, Slovenia, Estonia, Island, Latvia)  
Source: Bank of Israel



## Research department updated forecast 2023, 2024

 BANK OF ISRAEL	2023	2024
GDP growth	2.0% (2.3%)	2.0% (2.8%)
Export growth	1% (2.5%)	1.5% (4%)
Wide unemployment rate	4.3%	4.5%
Debt to GDP ratio	63% (62%)	66% (65%)
Inflation	3.5% (3.5%)	2.4% (2.5%)

\*Red numbers describe the previous forecast from October 23rd.



Thank you

