

Economy of war: 2023-24 (1/12/2023 edition)

ISRAEL AT WAR

corrected forecast 2023 2024



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**Augmented Intelligence
During Times of Turmoil**



RONIT FARM

08.01.2024

Click to register





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Augmented Intelligence During Times of Turmoil

08.01.2024 | 8:00-16:00 | RONIT FARM



| Time | Topic | Speakers |
|--------------|---|-------------------------------|
| 08:00 | Registration | |
| | Welcome notes We will never be the same after 7th October. Let us, our Israeli IT community, come together and pledge to do our best to strengthen our society and our country going forward. Although it seems as though life froze for us as a nation on October 7th, technological advancements around us keep pushing forward at an accelerating pace. AI is rapidly changing the world around us, already having a major impact on businesses, governments, and our society. This is why we felt it is important at this point in time, to come together and discuss the different aspects in which AI, automation and other innovative technologies will impact organizations, operations and knowledge workers. Now, more than ever, given the uncertain economic road ahead, we will address the steps organizations must take today in order to prepare for an AI-powered reality. STKI's analyst team will present a 360 view of AI and its effects, including: Intelligent Automation, impact on employees and HR, adoption of suitable operation and organizational models, AI Infrastructure and Technologies, impact on data and analytics and much more. I will be your host for this summit. Together we will take a journey through the do's and don't of what lies ahead. On behalf of STKI, we hope you will have an enriching, inspiring, and educating time, filled with value, content, insights and even some long-awaited mingling. | Einat Shimoni, Summit host |
| 09:15 - 9:45 | Reset and Disruption in Technologies and Economic Models This presentation will explore the relationships between the data economy, the ecosystem economy, event-driven and answer-driven automation, generative AI, and causal AI. Dr. Schwarzkopf will discuss how these concepts are intertwined and how they are shaping the future of our economy and society. | Dr Jimmy Schwarzkopf |
| 10:30-11:00 | Empowering Business Operations: Exploring the Transformative Potential of Intelligent Automation (IA). In the ever-evolving business environment, Intelligent Automation is reshaping how organizations innovate and optimize operations. This presentation explores the transformative impact of real-time evidence in human work and the collaboration between human intelligence and automation. By leveraging advanced technologies, we learn how Intelligent Automation streamlines workflows, cuts manual efforts and extracts actionable insights from real-time data. This integration accelerates decision-making and cultivates a culture of continuous improvement for modern organizations. | Galit Fein |

| | | |
|-------------|--|-----------------------------|
| 11:30-12:10 | The Impact of Generative AI on Data and Analytics in organizations. Generative AI is a rapidly evolving field with the potential to revolutionize the way we use data. This session will explore the latest trends in generative AI and how it is being used to impact data and analytics. We will discuss how generative AI is being used to: - Automate data management tasks such as data cleaning, labeling, and generation (synthetic data) - Create new ways to visualize and understand data - Democratize access to data and make it more accessible to everyone This session will focus on the synergies between Generative AI, Analytical AI and Data, which CDOs and data leaders can start to leverage in their organizations today. | Einat Shimoni |
| 12:10-12:40 | The Impact of AI on Development, Infrastructure, Operations and Cyber Security. The transformative power of AI and GenAI will permeate all facets of IT operations, infrastructure, security, and even software development. GenAI will drive a surge in productivity by automating routine tasks, enhancing efficiency, enabling real-time threat detection, and expediting the generation of high-quality code and applications. As Galit previously discussed, GenAI is closely intertwined with various intelligent automation tools. This session will delve into the interrelationships between these intelligent automation tools and explore the optimal strategies for organizations to maximize their benefits. | Pini Cohen |
| 12:40-13:20 | Augmented Intelligence - Technologies and Supporting Infrastructure. The AI and GenAI value chain comprises a multitude of elements, necessitating a novel set of tools, skills, processes, and capabilities across various IT departments, including data teams, infrastructure teams, and others. This entails developing new data pipelines and innovative approaches to securing and governing the outputs of GenAI-based algorithms. This session will include practical advice of building the necessary infrastructure tools organizations and processes for building the AI foundation | Pini Cohen Einat Shimoni |
| 13:20-14:20 | Lunch | |
| 14:20-15:00 | Digital Development is a Product, not a Project. This presentation explores the need for a modern organizational design for adaptive and responsive enterprises to help them navigate the rapid shifts in market conditions, customer expectations, and evolving technology environment. Embracing Conway's Law, we explore how organizational structures and team communication patterns profoundly influence software delivery speed. The focus is on rethinking team structures, purpose, and interactions to align with value-stream flow optimization. | Galit Fein |
| 15:00-15:40 | Enterprise Applications with embedded AI: The Differentiating Factor Enabling the Change from Knowledge Workers to Insight Workers. This presentation will discuss the changing world of the knowledge worker. Currently, as knowledge is well spread and accessible to everyone, multi-functional skills are moving to the front stage. FOBO - (Fear Of Being Obsolete) is mixed with uncertainty. Emergency times push us even further towards Gen AI solutions that may assist organizations with overcoming challenges, increase productivity and maximize efficiencies. | Reut Shefer Bar |
| 15:40-16:00 | IA and AI: Examples | All Analysts |

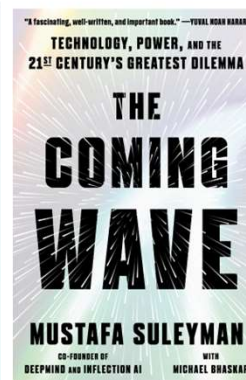
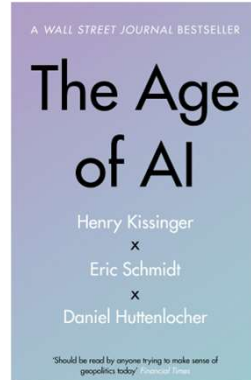
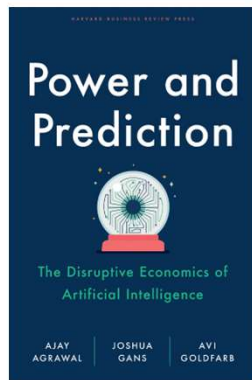
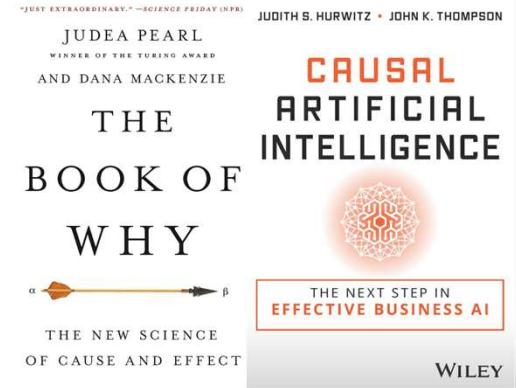
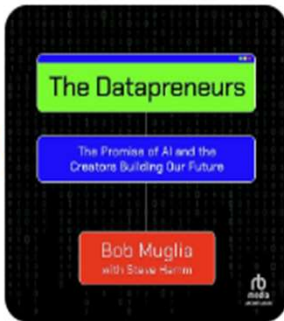
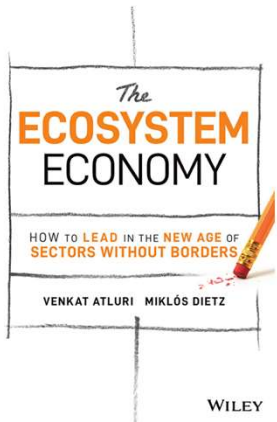


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I hope to see you attending our Summit 2023 (postponed to January 2024)

My presentation will cover several topics (I am including here reading material if you want to advance into the topics): Ecosystem Economy, Data Economy, AI in business, the future of AI (Causal AI)



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Economy of war: 2023-24



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To calculate the "IT Market" (what is bought/sold in Israel)



Technology Users



Technology Vendors



What users bought?
From whom?
Why?

how much did they sell?
to whom?
for how much?
competitors?

Data from 2023
(missing budget changes
4Q/2023; 2024)

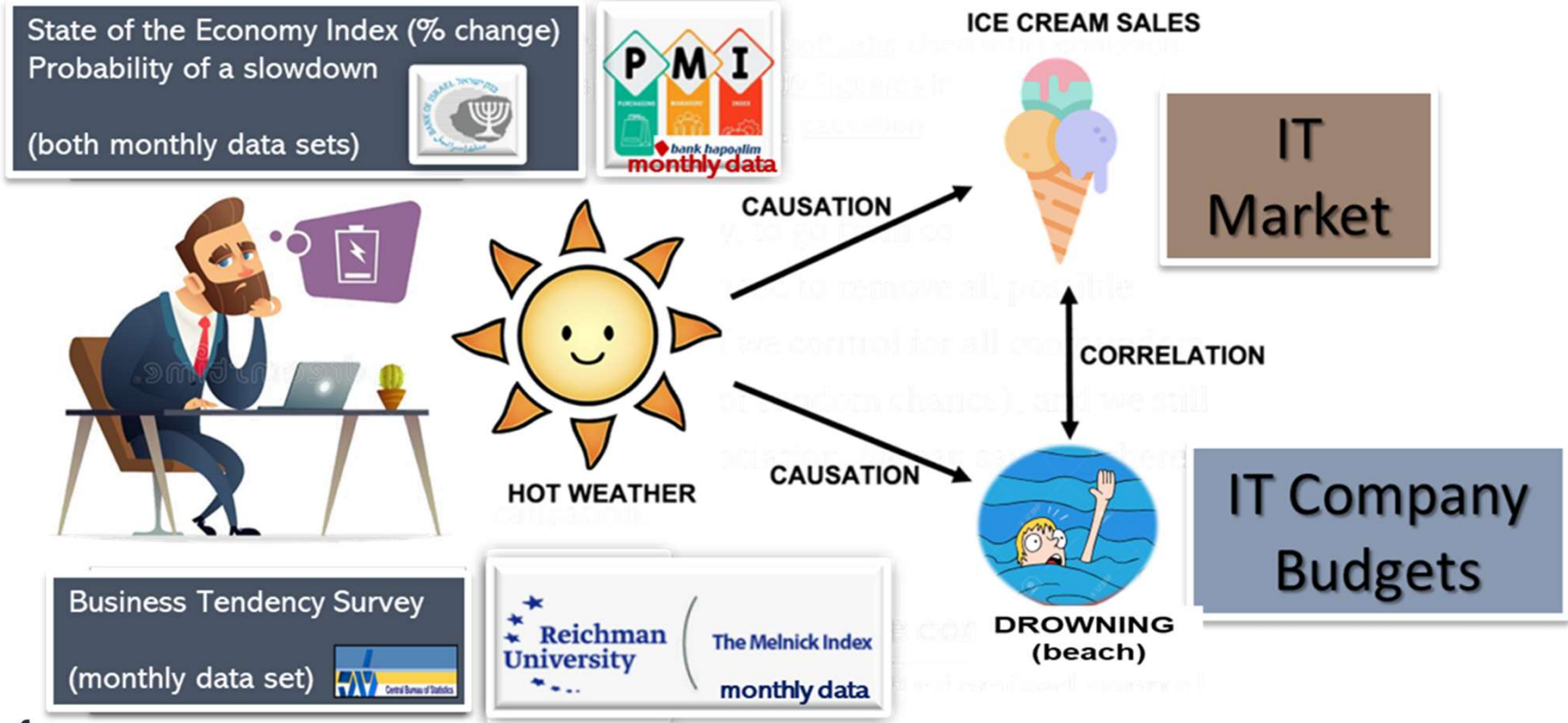
Data from 2023
(missing sales
4Q2023)



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economic forecasts (results for November 2023 are not in yet)

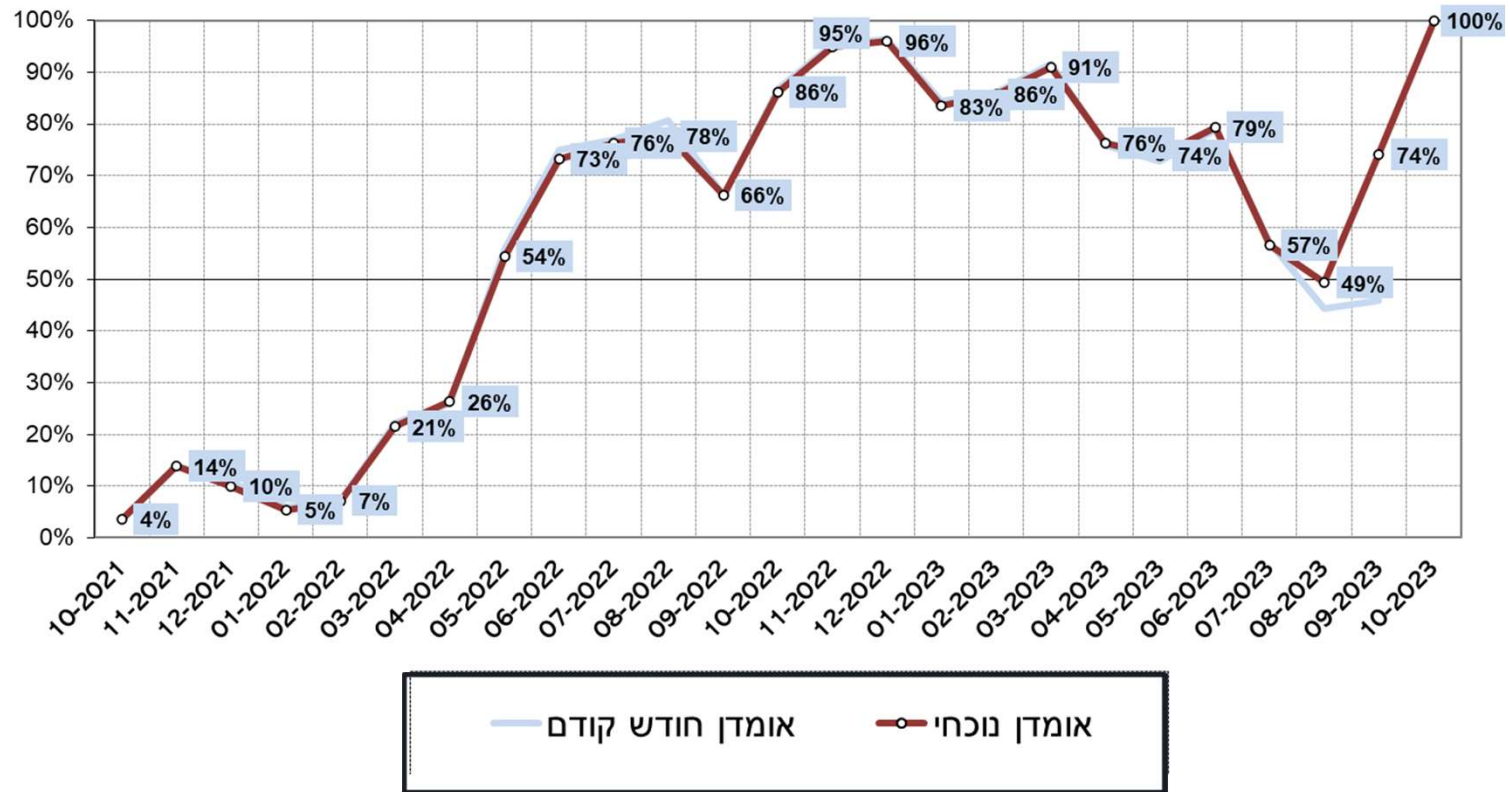


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Probability of slowdown relatively to the long-term growth

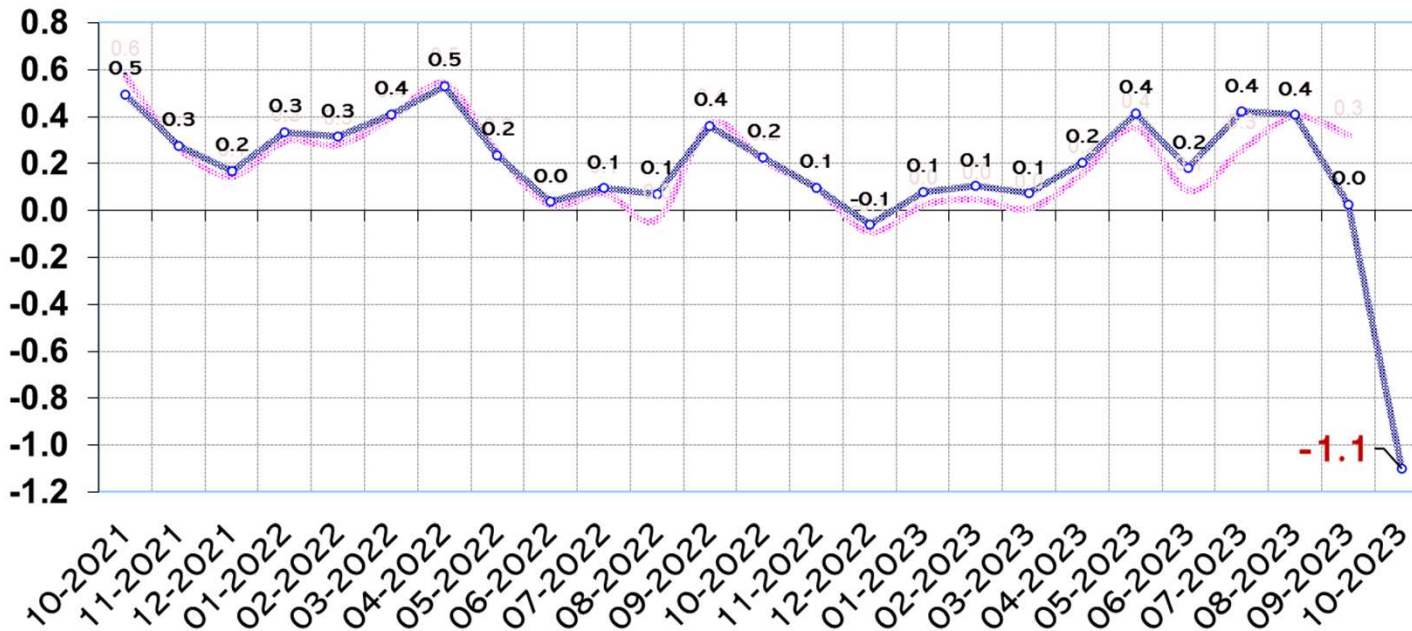
ההסתברות להאטה (10/2021-10/2023)



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The Composite State of the Economy Index (10/2021-10/2023) שיעור שינוי, המדד המשולב



The Composite State of the Economy Index declined by 1.1 percent in October influenced by the Swords of Iron War. The outbreak of the war on October 7 led to a **sharp decline in economic activity**, particularly in private consumption. The decline was reflected in a sharp decline in credit card purchases and in the import of consumer goods in October

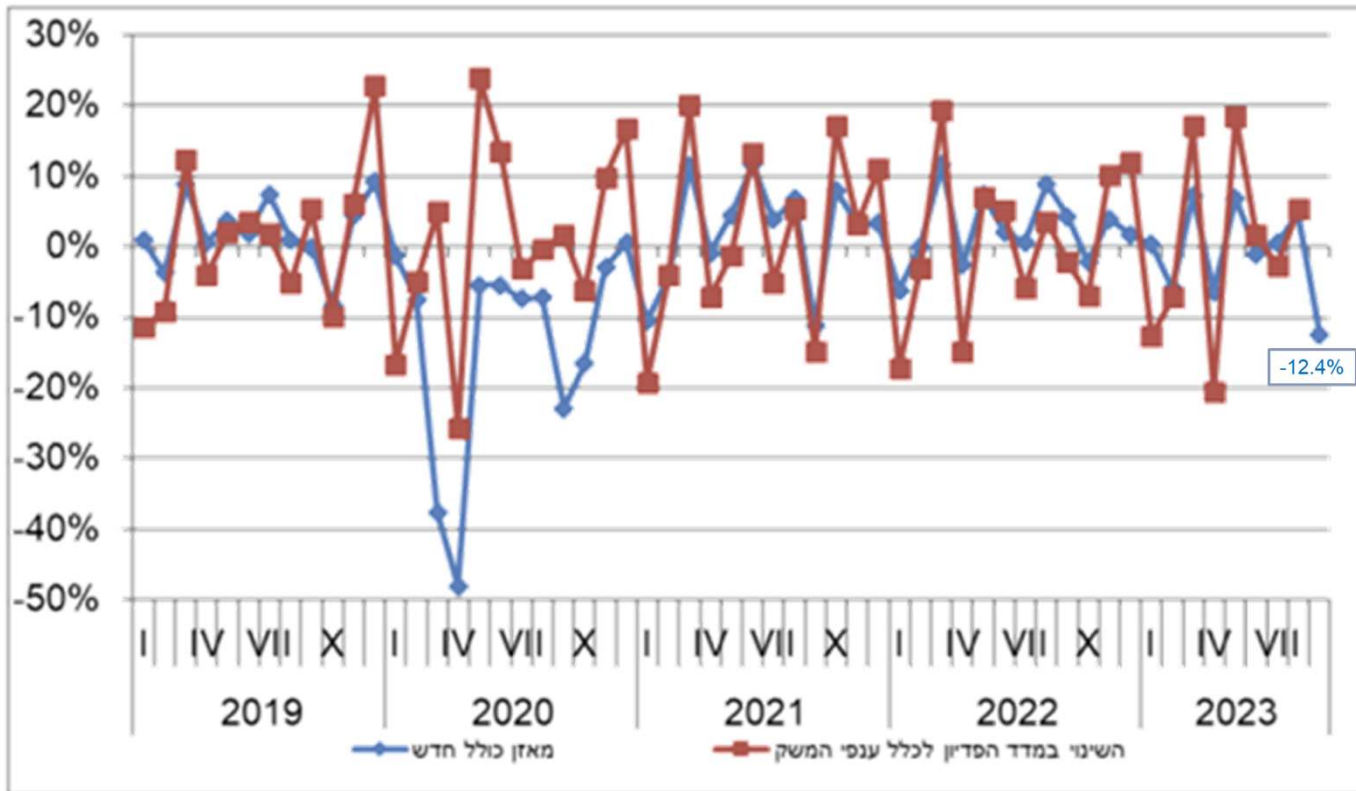


אומדן נוכחי אומדן חודש קודם



סקר הערכת המגמות בעסקים - אוקטובר 2023
 Business Tendency Survey - October 2023

מאזן כולל והשינוי במדד הפדיון לכלל ענפי המשק (נתונים מקוריים במחירים קבועים)
 Total Balance and the Change in the Revenue Index for All Industries in the Economy

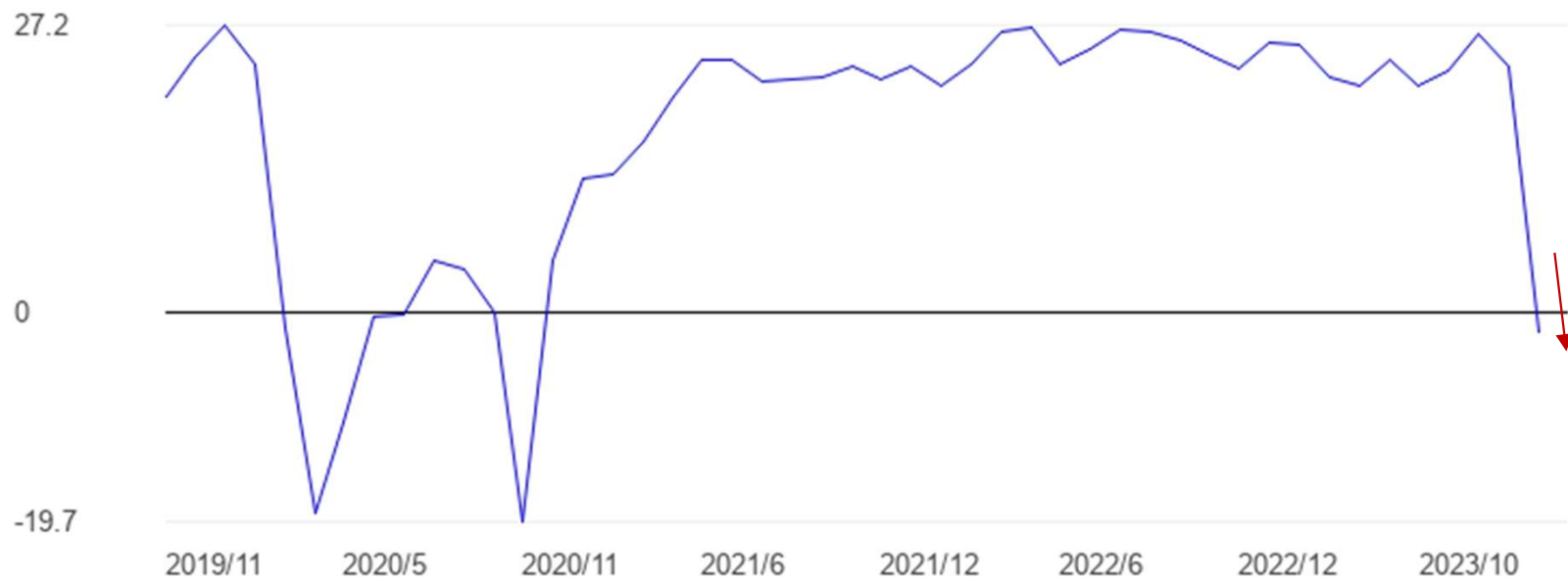


BTS measures the level of optimism that executives have about current and expected developments regarding production, sales, demand, employment and changes in the USDILS exchange rate.





Israel: Business confidence survey



Measure: points
Source: Israel Central Bureau of Statistics



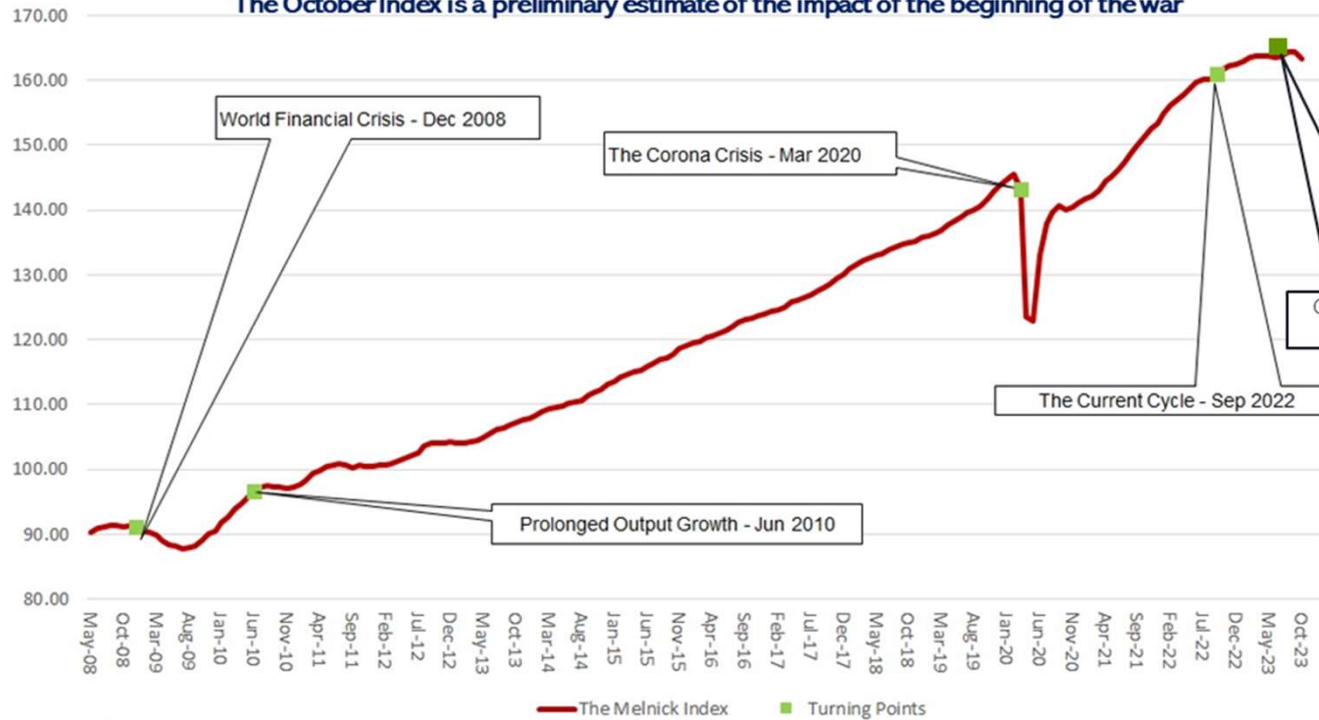
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The Melnick State of the Economy Index, the Current Cycle

Last data point October 2023
(100=2011)

The October Index is a preliminary estimate of the impact of the beginning of the war



- "The war could decrease the business product by 3.8 percent in the last quarter of 2023" -

According to preliminary estimates, the war could potentially damage the business sector's product, in the last quarter of 2023, by 3.8 percent, consequently lowering the growth rate of the business product to 1.9 percent in 2023.

Prof. Rafi Melnick, Reichman University

The October Index is a preliminary estimate of the effect of the first month of the war on the business sector activity. The indicators are still partial; therefore, the estimate may change when the data is updated later.

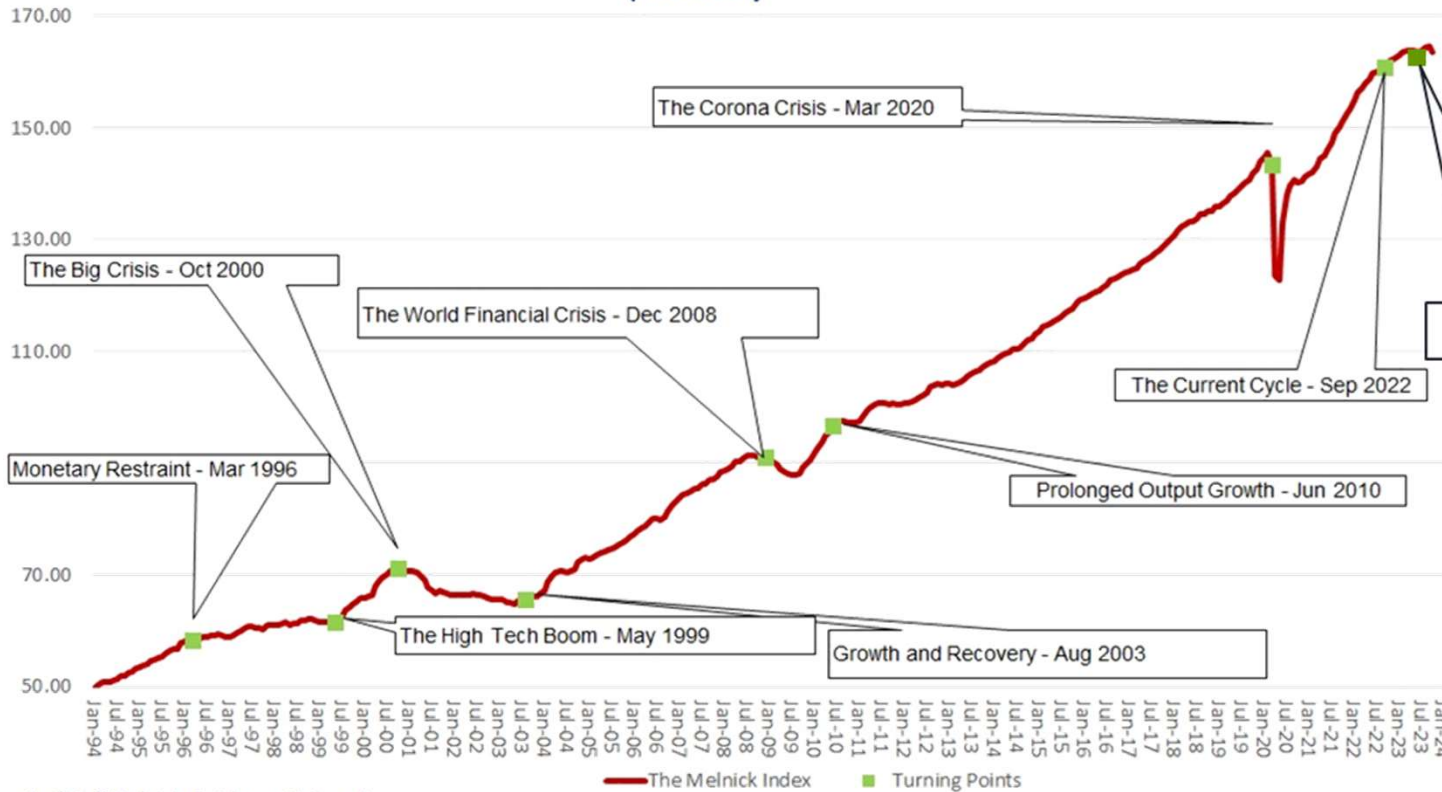


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Business Cycles by the Melnick State of the Economy Index 1994-2023

Last data point October 2023
(100=2011)



The Index is a coincident indicator designed to identify, in real time, the level and the turning points of economic activity in Israel.

Prof. Rafi Melnick, Reichman University



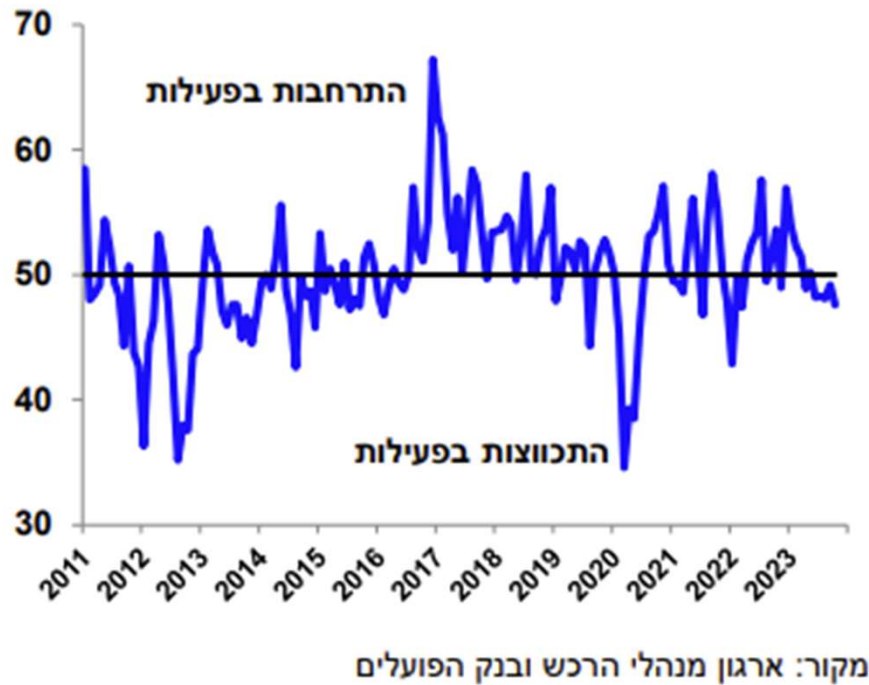
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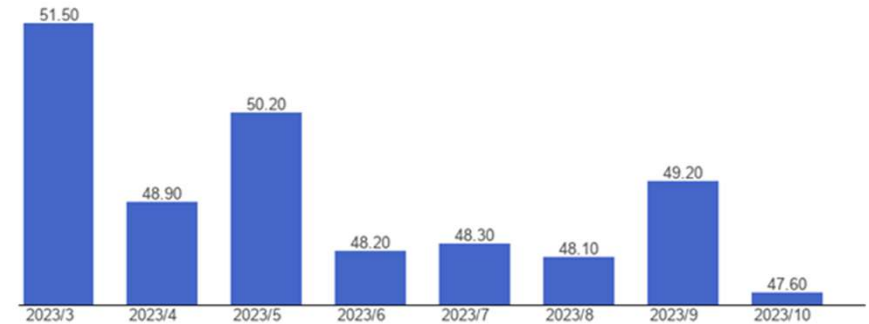
Israel Purchasing Managers Index

PMI: Seasonally Adjusted (sa)

◆ bank hapoalim



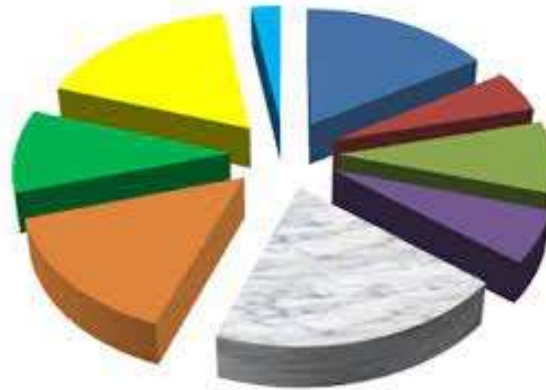
The Purchasing Managers Index decreased by 1.6 points in October 2023
This level indicates market contraction



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The results are tentative and depend on macroeconomic modeling and dialogues with key vendors and users.



We will try to update every 45 days

every
45
days



The Bank of Israel, the Ministry of Finance and many research departments (banks, insurance, universities) **have already begun formulating “scenarios and forecasts”** related to the **loss of domestic product and damage to the Israeli economy during and following the war.**

The great difficulty lies in the uncertainty of the scenario itself. That is, nobody knows how long the fighting will last, whether it will only include the southern region or whether the conflict will expand to another front in the north. The war has disrupted the normal functioning of many businesses, especially in the sectors of tourism, construction, hightech and agriculture.

The damage to the economy is expected to be significantly different than those of other wars (i.e.: second Lebanon war) because of the magnitude of:

- **Reservists recruited (between 300,000 and 340,000 reservists have been called up) in addition, it is calculated another 150,000 spouses and other family members have had to stop work to accommodate the call-up.**
- **Displaced population of the south and northern towns (between 150,000 and 200,000 people) that need temporary accommodations, services (education, psychological and social welfare).**
- **Damage to entire kibbutzim, moshavim and towns that need to be rebuild entirely**
- **Probability of political turmoil (elections)**

According to the Bank of Israel, the significant damage to the economy will be **concentrated on the last quarter of 2023 and the first of 2024 (7/10/23- 1/4/2024) and the least pessimistic scenario says the Israeli economy will suffer a loss of domestic product of approximately \$10 billion USD**



Research results from “other” research groups

- **JPMorgan:** slashes Israel's 4Q23 GDP growth forecast to **-11% from previous quarter**
- **S&P:** sees GDP growth of **1.5% in Israel in 2023 and 0.5% in 2024**. The company's annual forecasts represent a sharp **contraction of 5% in GDP** in the fourth quarter of 2023
- **Fitch:** places Israel on **rating watch negative** as Gaza war rages
- **Moody's:** Israel's **Debt Rating Put On Review** for Downgrade
- **Le Monde:** Since the October 7 attack, all sectors in Israel, including construction, tech, agriculture and textiles, have been affected **by labor shortages**. The high-tech companies of which the country is so proud have seen their workforce of "geeks" and skilled executives melt by 10-15%, with nearly 360,000 reservists being mobilized by the army, equivalent to 10% of the working population.
- **Reuters:** **Israel GDP grows 2.8% in Q3 ahead of expected contraction in Q4 due to war**
- **Jerusalem Post:** Approximately 760,000 people, constituting nearly one-fifth of the workforce, have been affected by military service, residence in the Gaza periphery, or childcare responsibilities. An additional 46,000 employees, comprising about 1% of the workforce, have faced termination or unpaid leave, with 70% falling into the latter category. **This situation has created a notable workforce gap that stands to impact two of Israel's most critical industries: hi-tech and agriculture.**
- **Prof Joseph Zeira:** says a **recession is almost certain** as leaders warn of a long war



Israel IT Market Forecasts (statistics)



Dr. Jimmy Schwarzkopf



Galit Fein



Einat Shimoni



Pini Cohen



Reut Shefer Bar

STKI Research Team



IT Market 2018-2024 Original Forecast

| 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------|------------|------------|------------|------------|------------|-------------|
| \$7,159.15 | \$7,904.30 | \$8,041.00 | \$8,900.80 | \$9,470.30 | \$9,461.50 | \$10,294.50 |
| | 10.41% | 1.73% | 10.69% | 6.40% | -0.09% | 8.80% |

Values in Million USD

FORECAST

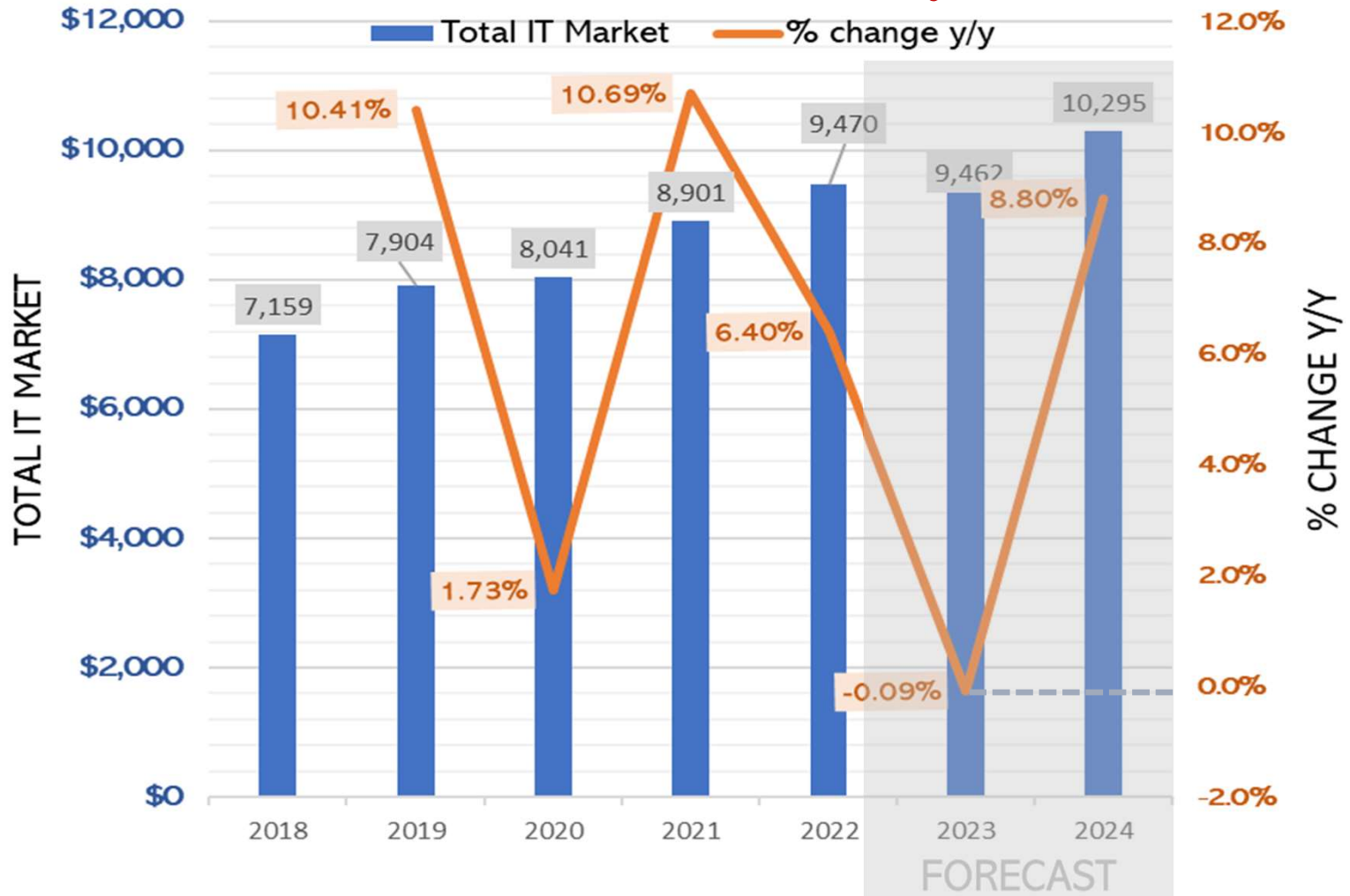


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IT Market 2018-2024 (Original Forecast)

Values in M USD



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IT Market 2018-2024 Corrected Forecast

| 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------|------------|------------|------------|------------|------------|------------|
| \$7,159.15 | \$7,904.30 | \$8,041.00 | \$8,900.80 | \$9,470.30 | \$9,274.00 | \$8,440.00 |
| | 10.41% | 1.73% | 10.69% | 6.40% | -2.07% | -8.99% |

Values in Million USD

FORECAST

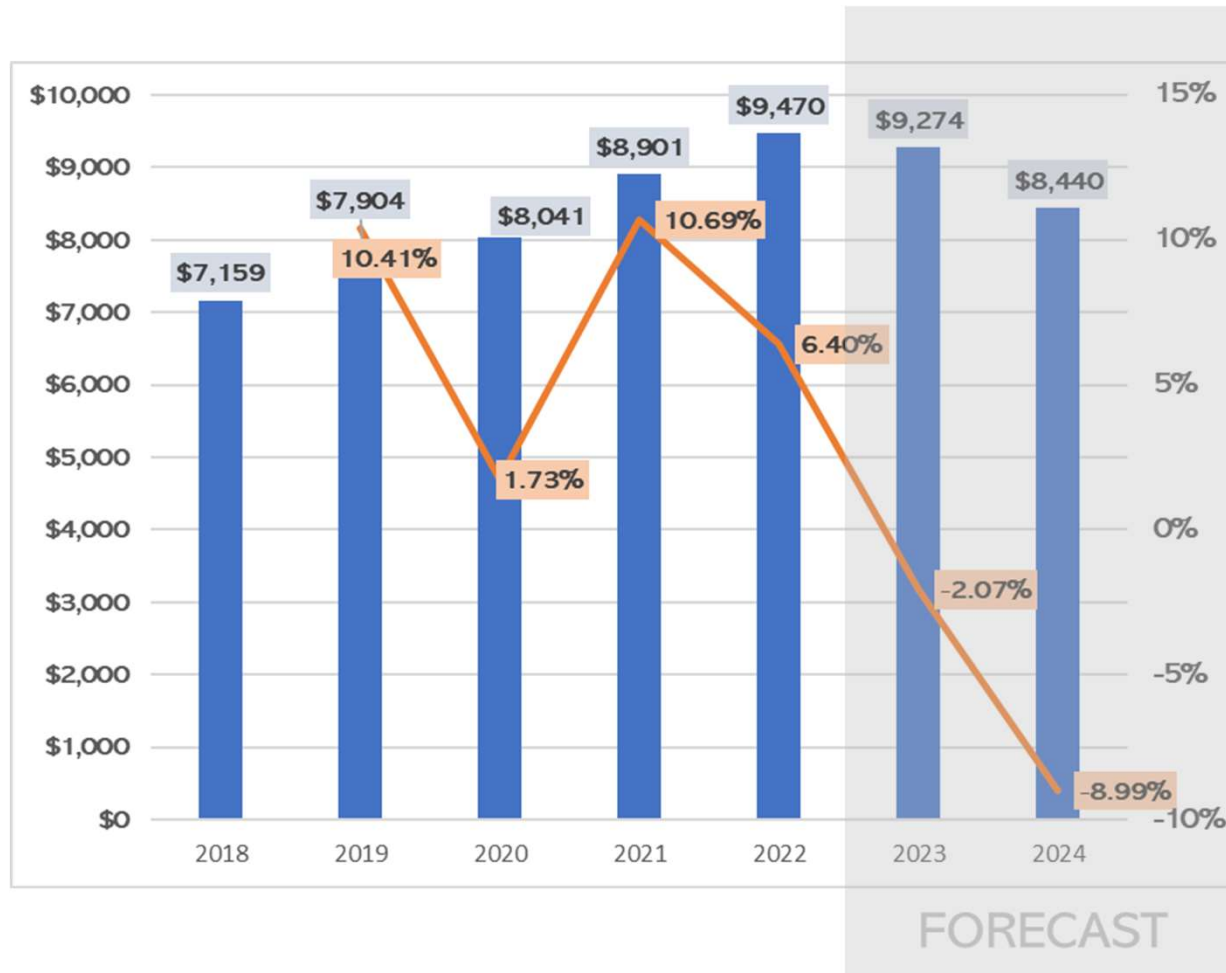


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IT Market 2018-2024 (Corrected Forecast)

Values in M USD



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IT Markets

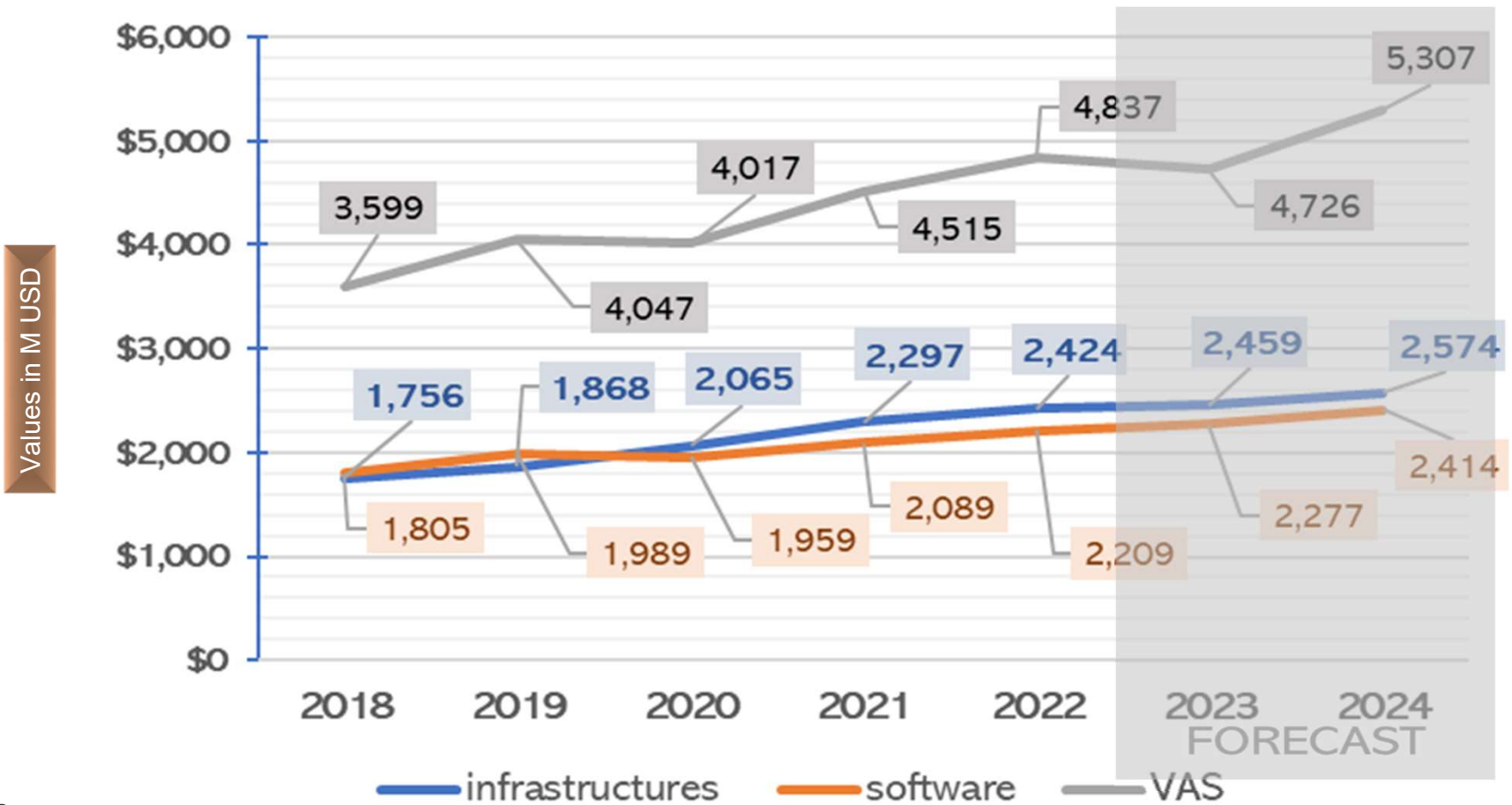
(infrastructure, software, value added services) 2018-2024

Original Forecast

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|-----------------|------------|------------|------------|------------|------------|------------|------------|
| infrastructures | \$1,756.15 | \$1,868.00 | \$2,065.00 | \$2,297.00 | \$2,424.00 | \$2,459.00 | \$2,574.00 |
| % change | | 6.37% | 10.55% | 11.23% | 5.53% | 1.44% | 4.68% |
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| software | \$1,804.50 | \$1,989.20 | \$1,959.00 | \$2,089.30 | \$2,209.30 | \$2,276.50 | \$2,413.50 |
| % change | | 10.24% | -1.52% | 6.65% | 5.74% | 3.04% | 6.02% |
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| VAS | \$3,598.50 | \$4,047.10 | \$4,017.00 | \$4,514.50 | \$4,837.00 | \$4,726.00 | \$5,307.00 |
| % change | | 12.47% | -0.74% | 12.38% | 7.14% | -2.29% | 12.29% |



Israeli IT Market 2018-2024 (Original Forecast)

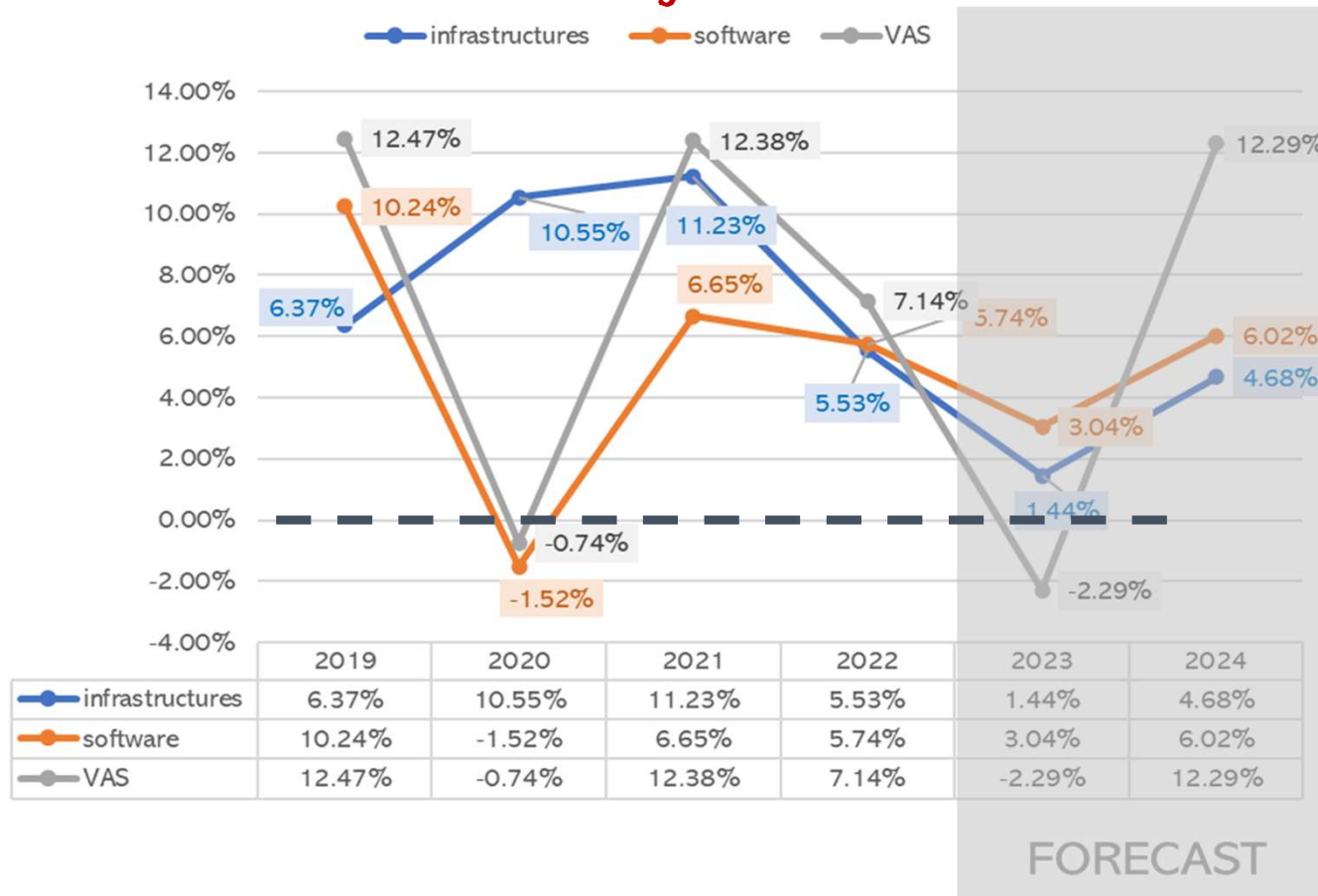


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Israeli IT Market (% change) 2018-2024

(Original Forecast)



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IT Markets

(infrastructure, software, value added services)

2018-2024

Corrected Forecast

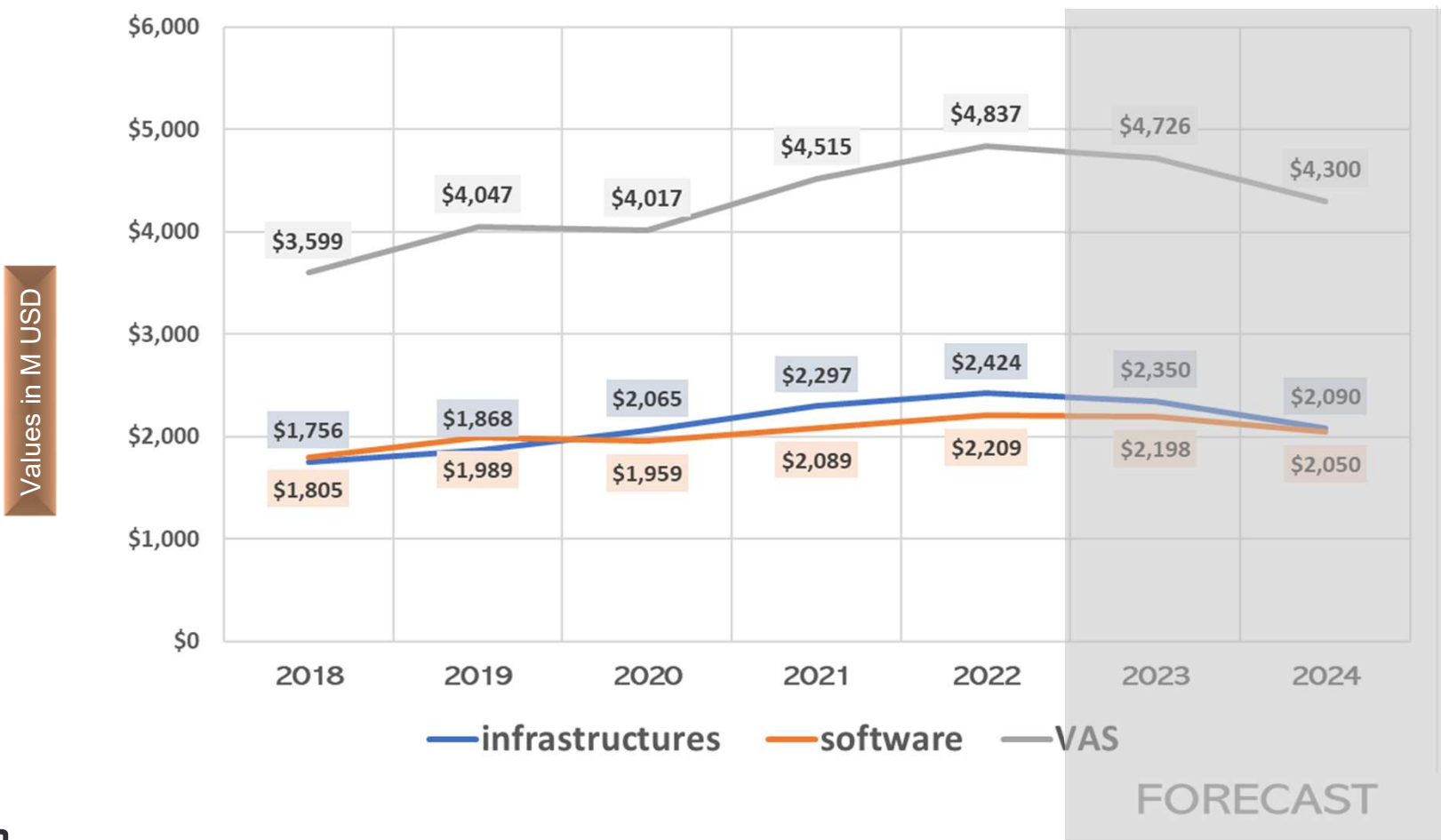
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024* |
|-----------------|------------|------------|------------|------------|------------|------------|------------|
| infrastructures | \$1,756.15 | \$1,868.00 | \$2,065.00 | \$2,297.00 | \$2,424.00 | \$2,350.00 | \$2,090.00 |
| | | 6.37% | 10.55% | 11.23% | 5.53% | -3.05% | -11.06% |
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| software | \$1,804.50 | \$1,989.20 | \$1,959.00 | \$2,089.30 | \$2,209.30 | \$2,198.00 | \$2,050.00 |
| | | 10.24% | -1.52% | 6.65% | 5.74% | -0.51% | -6.73% |
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| VAS | \$3,598.50 | \$4,047.10 | \$4,017.00 | \$4,514.50 | \$4,837.00 | \$4,726.00 | \$4,300.00 |
| | | 12.47% | -0.74% | 12.38% | 7.14% | -2.29% | -9.01% |

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Israeli IT Market 2018-2024 (Corrected Forecast)

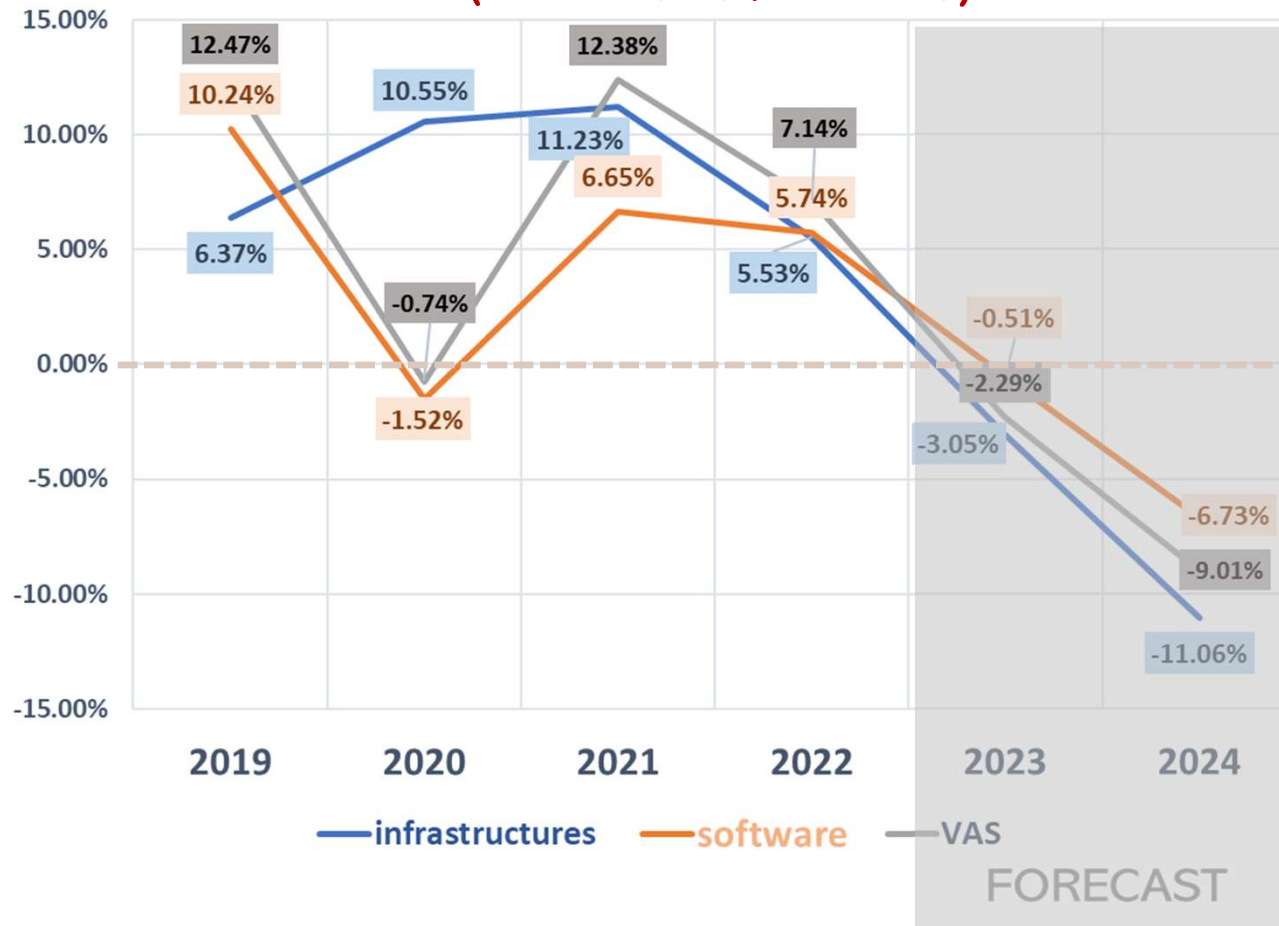


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Israeli IT Market (% change) 2018-2024

(Corrected Forecast)



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