

**Quick and Relevant Critical Estimates: Special Survey by Demand as  
Part of the Business Tendency Survey**

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March 2024

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## **Abstract**

National Statistical Offices (NSOs) typically release estimates from various surveys with a lag of up to two years. However, the Coronavirus (COVID-19) pandemic led to extraordinary economic conditions and fluctuations, which prompted NSOs worldwide to initiate special surveys targeting businesses and households, in order to provide timely and relevant data for policymakers.

The post-COVID period is characterized by uncertainty and fluctuations caused by war, inflation, supply chain disruptions, and other unexpected events having global consequences. This unstable economic environment, together with the positive experience from the special surveys during the pandemic, motivated the Israel Central Bureau of Statistics (CBS) to develop a flexible questionnaire that is attached to the monthly Business Tendency Survey (BTS). This questionnaire enables the CBS to explore critical and relevant variables based on a representative sample of businesses.

This paper presents important issues that the CBS has surveyed in the last two years in cooperation with the Bank of Israel and other governmental policymakers. The paper discusses the challenges and opportunities of conducting such surveys in a rapidly changing economic environment.

## **Introduction**

### **Business Tendency Survey (BTS)**

Economic data pertaining to the corporate sector, including important variables such as production and revenue indices derived from short-term business surveys, play a crucial role in shaping monetary and fiscal policies globally. However, the processing of this data is a time-consuming endeavour, often taking anywhere from one and a half to six months. Consequently, there has been a growing need to rely on forecasts generated from qualitative business surveys. These surveys offer the advantage of being published well in advance of the completion of data collection and analysis of the short-term business surveys for the relevant period. Consequently, they possess the capacity to serve as a foundation for predicting economic activity.

Qualitative business surveys are now prevalent in Western countries. While in the 1960s there were approximately 15 surveys of this nature, today, there are more than 300 surveys dedicated to expectations. This proliferation can be attributed to the development of the rational expectations theory (Nardo, 2003).

Qualitative business surveys have two primary objectives: first, to provide insight into the anticipated direction of the indicator being examined (e.g., output, production, price); and second, to serve as an early warning system for shifts in business cycles.

In these surveys, company managers within the business sector are queried about the past, the present, and their expectations for the future regarding various economic variables pertaining to their companies. Responses obtained from the survey are qualitative in nature, with the surveyed managers expressing their expectations regarding changes in economic variables on a rating scale consisting of three options: 1. increase, 2. no change, and 3. decrease.

In Israel in 2011, the CBS established a qualitative survey, a monthly BTS, as a part of the process of joining the OECD, with the additional goal of increasing the capability of the CBS and the Central Bank to identify business cycles' turning points.

Data are collected through a self-administered online questionnaire, with potential data supplementation achieved through telephone interviews by CBS reviewers where required. The survey's participant pool includes companies employing a minimum of five Israeli workers, as reported to the National Insurance Institute. Encompassing industries such as manufacturing, construction, retail trade, hotels, and services, the survey sample comprises around 1,600 companies.

### Special on demand survey

Due to the recent economic disruptions brought about by the COVID-19 pandemic and its subsequent consequences, the CBS initiated measures to enhance the flexibility of its monthly BTS. Toward this goal, a dynamic section was introduced within the survey that enables investigations of various relevant issues.

Starting in December 2021, the CBS has conducted 12 special surveys that focus on specific topics. These topics include the changes seen after COVID-19, the effects of the conflict in Ukraine, how productivity and investments are shifting, the impact of interest rate changes, and how the workforce is changing. Table 1 presents the different topics surveyed.

**Table 1 – List of special surveys, by date**

<b>Date</b>	<b>Topic</b>
12/2021	State-guaranteed loans, grants and returning sick workers
01/2022	Reduction of corona virus restrictions
03/2022	Price changes and the effects of the Omicron variant spread on Israeli businesses
04/2022	The effect of the war between Russia and Ukraine on business in Israel
06/2022	Employee productivity and business investments in machinery and equipment
07/2022	Expectations in investments, raising capital, and employees – A special questionnaire for the Manufacturing and Services industries only
08/2022	Extending the duration of construction – A special questionnaire for the Construction industry only
11/2022	Training and performance bonuses for employees – all industries except Construction
12/2022	The effect of interest rate changes on businesses activity and prices
03/2023	The scope and efficiency of working from home
06/2023	Reduction of workforce in high-tech industries
07/2023	Expectations in investments, raising capital, and employees in the High-Tech and the Services

In this discussion, we take a closer look at the importance of this capability for National Statistics Offices (NSOs) and the main findings and conclusions that we estimate from these special surveys.

## **Usage and Effectiveness of the COVID-19 Government Financing Support Programs – December 2021**

During 2020 and 2021, the Israeli government ran a series of assistance programs with the goal of stabilizing both the economy and the labour market.

At the end of 2021, together with the Central Bank, we aimed to evaluate the extent of usage and the effectiveness of these programs in order to improve economic policy for the next crisis. In this dynamic section, managers were queried regarding the effectiveness of these programs in facilitating their operations. Specifically, their feedback was sought regarding the following schemes:

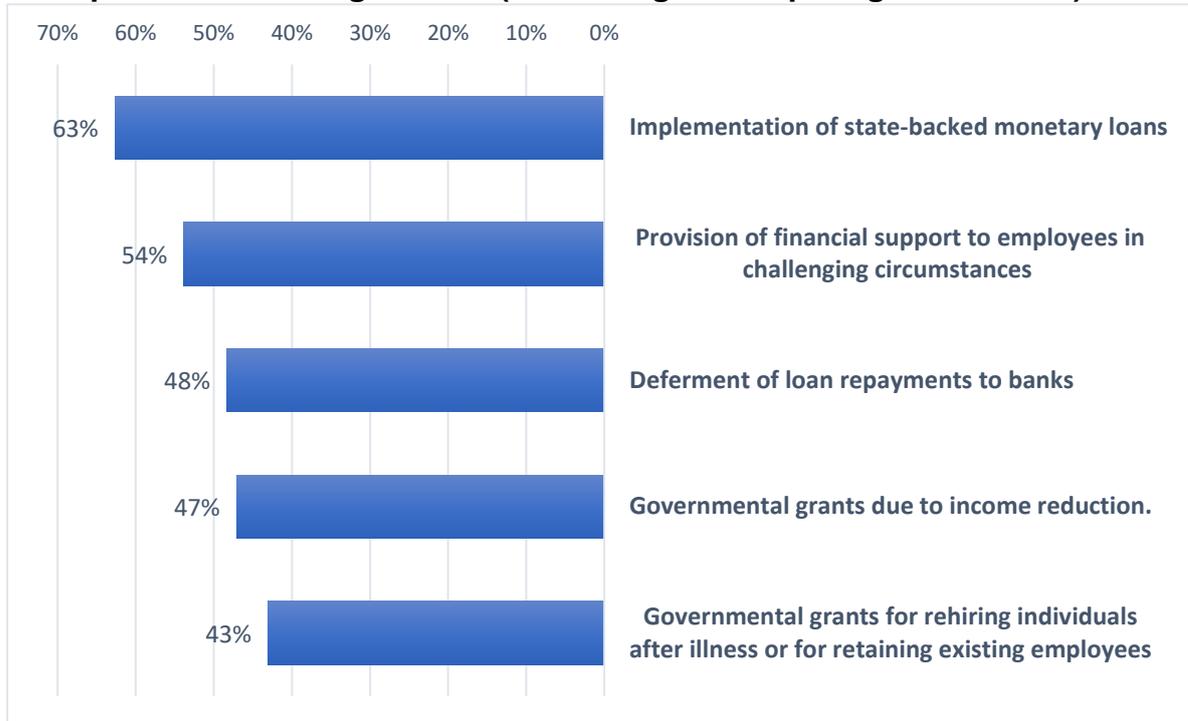
1. The implementation of state-backed monetary loans;
2. The deferment of loan repayments to banks;
3. Provision of financial support to employees in challenging circumstances (furlough scheme);
4. Governmental grants for rehiring individuals after illness or for retaining existing employees; and
5. Governmental grants due to income reduction.

The response rate for this survey was approximately 84%. The surveyed population reflected approximately 60,000 enterprises operating within the business sector.

The survey estimates enabled us to formulate insights and conclusions about the different programs. The main insights were:

- As expected, the most common schemes were the unpaid leave program (59% of businesses made use of this program) and the grants for income reduction (43% of businesses received this grant).
- Surprisingly, the most helpful scheme according to the managers' reports was state-backed loans, with 63% of the businesses that received this loan reporting that it helped their firms to get through the crisis.
- In the hotel industry, a remarkable 54% of businesses reported significant aid from the grant aimed at rehiring employees. This stands in contrast to the broader survey population, where only about 17% expressed a similar sentiment. Intriguingly, this is the sole grant among the five reviewed support programs that displayed a higher assistance rate among larger enterprises compared to their small and medium-sized counterparts.

**Diagram 1 - Percentage of businesses according to the program that helped them to a large extent (Out of Eligible/Requiring Businesses)**



### **The Effects of the Omicron Variant's Spread on Israeli Businesses – March 2022**

The Omicron variant of SARS-CoV-2, which emerged in Israel in February 2022, differed from previous variants in two key ways. First, it was significantly more transmissible, with an estimated doubling time of just two to three days. Second, the Israeli government did not implement any major social distancing restrictions in response to the Omicron outbreak, unlike in previous waves of the pandemic.

Due to these differences, the Ministry of Finance together with the Central Bank requested that the CBS survey the population of businesses and estimate the negative effects of the high morbidity on economic activity.

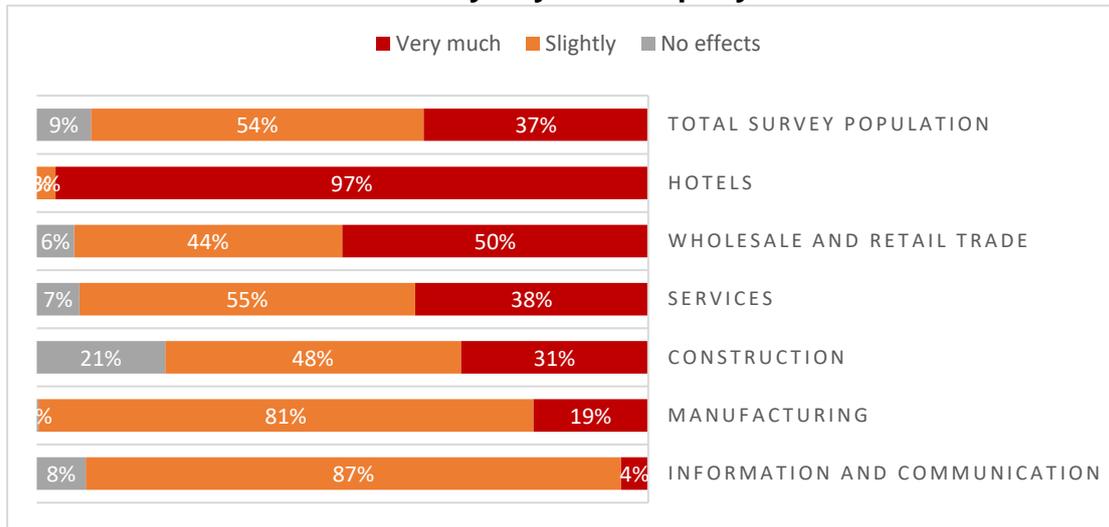
The special section was focused on the following issues:

- 1) Reduction of orders due to Omicron;
- 2) Employee absence due to isolation protocols; and
- 3) Challenges associated with supply chain disruption.

This survey also enabled us to quantify the extent of economic disruption resulting from the increased morbidity of the omicron wave.

The survey results pointed to small negative effects in the non-intensive contact industries (e.g., Manufacturing and High-Tech), with the main aspect affecting the businesses operation being employees' isolation and illness.

**Diagram 2 - To what extent did the decrease in orders or customers related to the omicron wave (December-February) hurt the business activity in your company**



**Extent of Working Remotely in the High-Tech, Manufacturing, Retail Trade, and Services Sectors – March 2023**

Prior to the onset of the Corona pandemic, approximately 4% of businesses extended remote work privileges to their entire workforce, while others restricted such arrangements solely to managers and directors within a limited capacity. During the pandemic, numerous businesses turned to remote work as a means to navigate social distancing requirements and government mandates. This situation subsequently prompted a broader implementation of remote work for a wider range of employees, prompting businesses to fortify their infrastructure accordingly. Consequently, the percentage of businesses embracing remote work experienced a notable surge, reaching 25%.

Throughout March 2023, managers from various sectors including industry, retail trade, and services participated in the special survey addressing the topic of remote work. Notably, the construction and hotel industries were excluded from this special survey due to the negligible share of employees that could work remotely in these industries.

The survey was conducted during a period free from restrictions or morbidity and the estimates reflect adoption of remote work for the long term.

The five questions explored were as follows:

1. To what extent was remote work feasible in your company prior to the COVID-19 pandemic?

2. Does your company currently provide the option for remote work?
3. In your perspective, how effective is remote work?
4. To what degree has remote work led your company to employ individuals residing farther from the workplace?
5. Looking ahead to the next year, how does your company intend to adjust the extent of remote work?

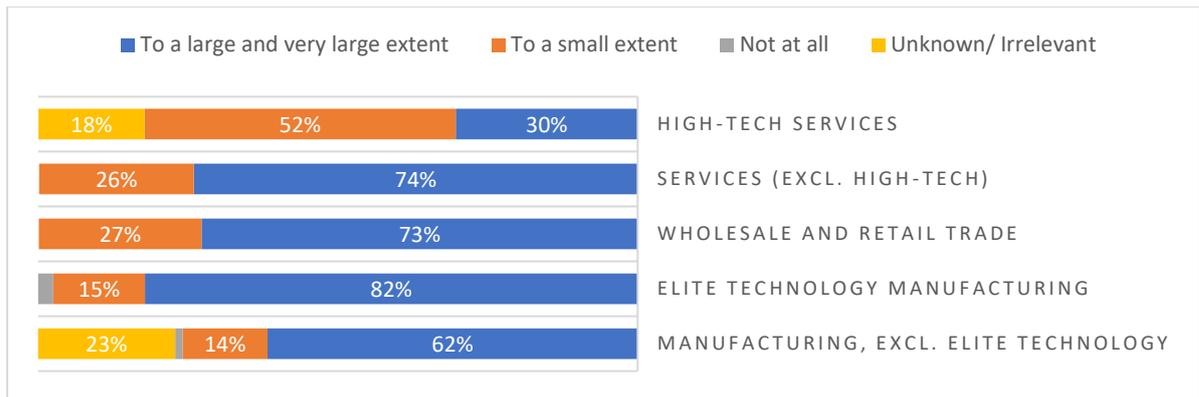
The survey estimates were computed across five distinct industries: non-elite manufacturing, retail trade, high-tech manufacturing, high-tech services, and other service industries.

The survey's population included approximately 40,000 businesses within the business sector, each with at least five employees.

Across the majority of industries, the prospect of remote work prior to the onset of the Corona crisis was relatively limited, often extending primarily to select managers and typically lacking a structured and organized framework. However, notable exceptions were found within the high-tech service industries: 26% of companies in these industries reported that even prior to the corona crisis, remote work was extensively embraced within their organizational practices.

In the current business landscape, over one-quarter of surveyed companies have incorporated structured and regulated work-from-home arrangements. Notably, nearly 96% of businesses in the high-tech service industries and about 14% of non-elite manufacturing industry companies have embraced remote work to varying degrees. Within high-tech service companies, around 51% facilitate remote work for two to three days weekly, and an added 13% accommodate four or more days, showcasing a significant segment of businesses that operate predominantly from home. In the industrial sector, larger companies, employing over 100 individuals, tend to offer remote work options to about 26% of their staff. Combining pre-crisis and current responses reveals that about 22% of surveyed businesses introduced structured remote work due to the COVID-19 pandemic. Particularly striking is the impact within high-tech service fields, where approximately 70% of businesses implemented structured remote work options as a direct outcome of the pandemic.

In industries in which working from home is not widespread, about 62% of managers in businesses (as a percentage of businesses that have WFH) define working from home as very effective or effective. On the other hand, in the high-tech service industries, where almost all companies allow work from home, only about 30% define this work as effective, as shown in Diagram 3.



## Discussion and Conclusion

Prior to the COVID-19 pandemic, NSOs released estimates of employment and businesses with a significant time lag, ranging from 45 days to one year. However, the extraordinary economic conditions and fluctuations during the pandemic rendered these estimates obsolete. As a result, NSOs around the world initiated special surveys targeting businesses and households to provide timely and relevant data for policymakers.

These special surveys created new capabilities and a high standard of relevance, but they were also resource-intensive in terms of time and human capital. This placed a strain on the NSOs' regular survey programs.

In this paper, we presented a methodological and technological development that enables quick estimates on critical issues without requiring significant human resources from NSOs. Our approach was based on a define sample of respondents who answered mostly through web questionnaires and who received additional questions for the Business Tendency Survey.

The development of the CBS's ability to survey different questions on demand, enabled the CBS-Israel central bank agreement to cease the collection of the "companies survey" and to reduce the response burden

We believe that our approach has the potential to revolutionize the way that NSOs produce data. By enabling quick and highly relevant estimates of key economic indicators, our approach can help policymakers make better decisions in a timely manner.