3. “The Short-Run Impact of the Judicial Overhaul on Israeli Financial Assets”

Itai Ater[14], Itzchak Tzachi Raz[15] and Yannay Spitzer[16]

The plan for a judicial overhaul in Israel, announced in January 4, 2023, has sent shock waves through Israeli financial markets. In this paper we document two important, substantial, and relatively easy to identify effects that are plausibly attributed to the judicial overhaul: currency depreciation and under-performance of the stock exchange. The identification of the magnitude of the effects is enabled by the particular features of the Israeli financial markets, namely their domination by a small number of major players (institutional investors) and the close dependence on American financial markets. In particular, we show that the S&P 500 index can be used to derive precise predictions of both the exchange rate between the NIS and the USD and of the leading indices of the Tel Aviv Stock Exchange, and thus form a counterfactual against which the effects of unusual local events could be assessed. This simple methodology yields estimates of a 20% excess depreciation in the value of the Israeli currency as well as a 25% loss in the value of Israeli stocks. While we interpret these effects as ominous symptoms for a future ailing economy rather than a reflection of current economic crisis, the loss of

[14] The Coller School of Management, Tel Aviv University, Senior Fellow at the Israeli Democracy Institute, and a CEPR Research Fellow: ater@post.tau.ac.il.

[15] The Hebrew University of Jerusalem: iraz@mail.huji.ac.il.

[16] The Hebrew University of Jerusalem and CEPR: yannay.spitzer@mail.huji.ac.il.

We thank Zvi Eckstein, Karnit Flug, Omer Moav, and Yaniv Yedid-Levi for helpful comments and suggestions. Ilay Gabay and Dolev Kulka Gelbe provided excellent research assistance. The writing of this paper was funded by the Israeli Democracy Institute and by the Aaron Institute for Economic Policy.

wealth they imply amounts to hundreds of billions of NIS – a devastating blow to the welfare of Israeli households that has already materialized.

Excess currency depreciation

To estimate the extent of excess depreciation of the NIS against the USD since the judicial overhaul was announced in January 2023, we rely on the strong short-run correlation that exists between the S&P 500 index and the USD/NIS exchange rate. In the past ten years, the opening of Israeli forex-neutralized funds—those that invest in foreign indices and hedge this investment against volatility in the USD/NIS exchange rate—has become immensely important. To hedge their exposure to foreign capital markets, foremost the American market and above all the S&P 500, the funds must make large-scale purchases of NIS whenever the foreign indices rise and, conversely, sell NIS when they fall. This phenomenon, coupled with the growing amounts of capital that these funds manage, has created a negative and very strong short-run correlation between the S&P 500 and the USD/NIS exchange rate (Ben Zeev and Nathan, 2022). Thus, the short-run correlation between the index and the USD/NIS exchange rate is so strong that one can use it to identify, with a high degree of certainty, aberrant NIS depreciation or appreciation events. It follows that we can employ it to estimate the extent of excess depreciation of the NIS against the USD since the judicial overhaul became known.[17]

---

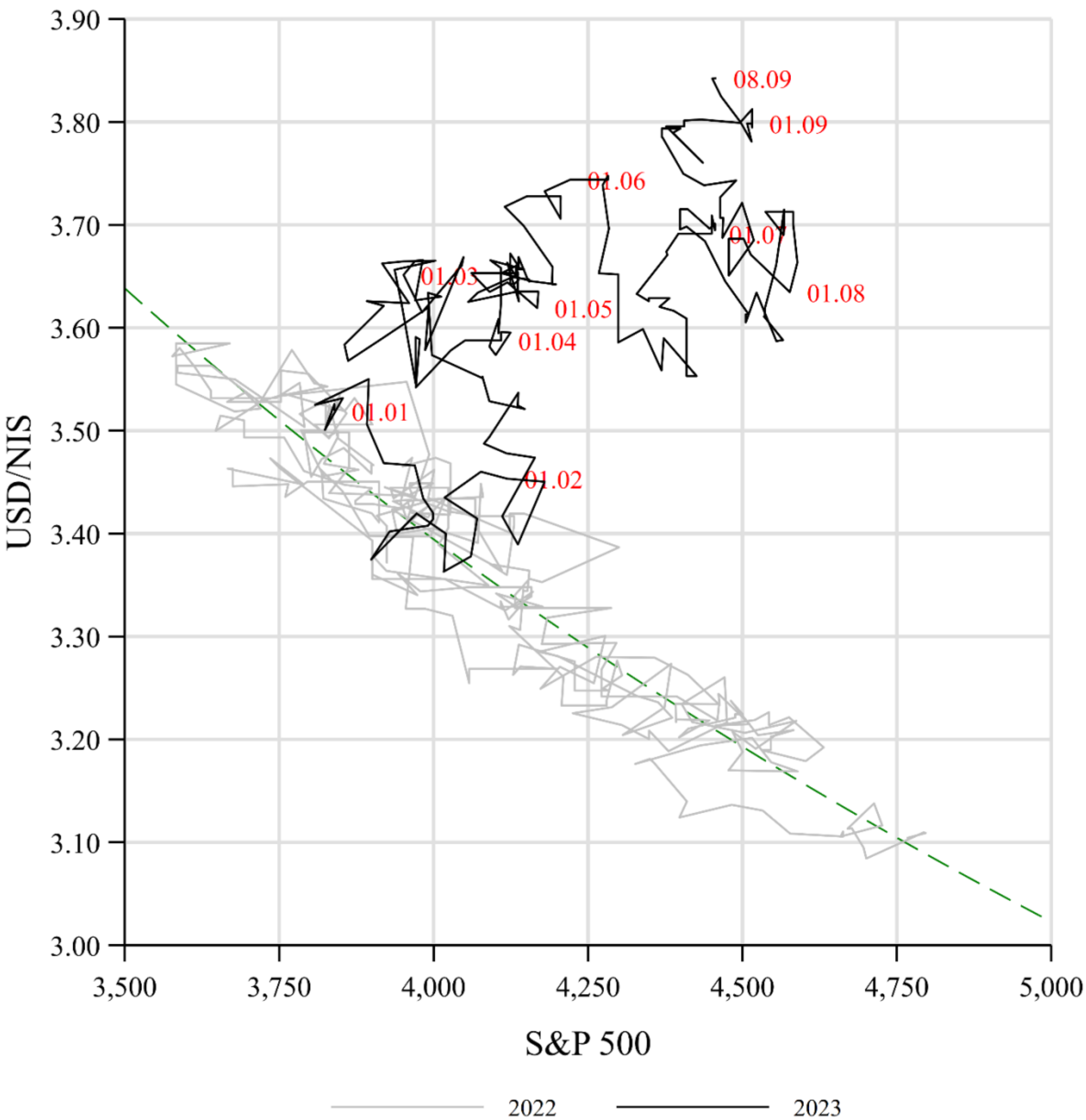
[17] At the more fundamental level, excess currency depreciation is attributable to a shock to Israel's asterisk-adjusted country risk premium, which is captured by the risk-adjusted interest parity arbitrage condition (Krugman, Obstfeld and Melitz 2021, Ch. 14). Our approach is descriptive and does not account for the full complexity of the determination of exchange rates, but since the patterns we document are striking, we choose to trade off analytic rigor for simplicity. In particular, the interest rate spread between US treasuries and Israeli NIS-denominated bonds was approximately fixed throughout the period, as both rates increased almost simultaneously and at a similar pace. Therefore, accounting for this spread does not affect the results.

To substantiate the strength of this statistical relationship, let us focus on the period from January 2022 to September 2023 (Figure 1). Until the beginning of 2023, the USD/NIS exchange rate closely tracked a downward-sloping curve relative to the S&P 500 index. On the basis of 2022 data, the standard deviation of the daily residuals from the predicted exchange rate was only 1.3 log points (!), the equivalent of 4.5 Agorot.[18] In other words, given the S&P 500, one could predict the USD/NIS rate with an error of no more than 8 Agorot on around 90 percent of days, with hardly a day with a larger error than 10 Agorot. To fix ideas, in January 2023 one dollar was equal to about 3.3 shekels (330 agorot).

[18] An *Agora*, pl. *Agorot*, is 1/100 of a New Israeli Shekel; during the period of interested it was equivalent to 0.25-0.3 US cents.

Figure 1

Relation between the S&P 500 and the USD/NIS exchange rate since early 2022



Note: This figure plots the USD/NIS exchange rate against the S&P 500 index on each day during 2022-3. The first day of each month in 2023 is labeled. The dashed line represents the predicted exchange rate based on a log-linear regression on 2022 data.

As one may also see in Figure 1, the tight curve that prevailed since early 2021 was breached outward in late January 2023, coinciding with the stepwise increase in concern about the economic risks associated with the judicial overhaul. In particular, it was in the last week of January 2023 that the former governors of the Bank of Israel issued their warning and hundreds of economists in Israeli academia and dozens of former directors general of economy-related government ministries signed the "Economists' Letter." Such a deviation from the curve is highly uncommon and we are unaware of any evident reason for it to have happened just then other than the turmoil surrounding the judicial overhaul.[19] In fact, in the past five years, such breaches took place only twice and for obvious reasons in both cases: first for only two days at the peak of uncertainty surrounding the eruption of the COVID-19 pandemic (March 17–18, 2020) and again when the Bank of Israel revised its policy on purchasing foreign currency (January 2021). Thus, the depreciation in early 2023 was unusual and rapid relative to the longstanding pattern.

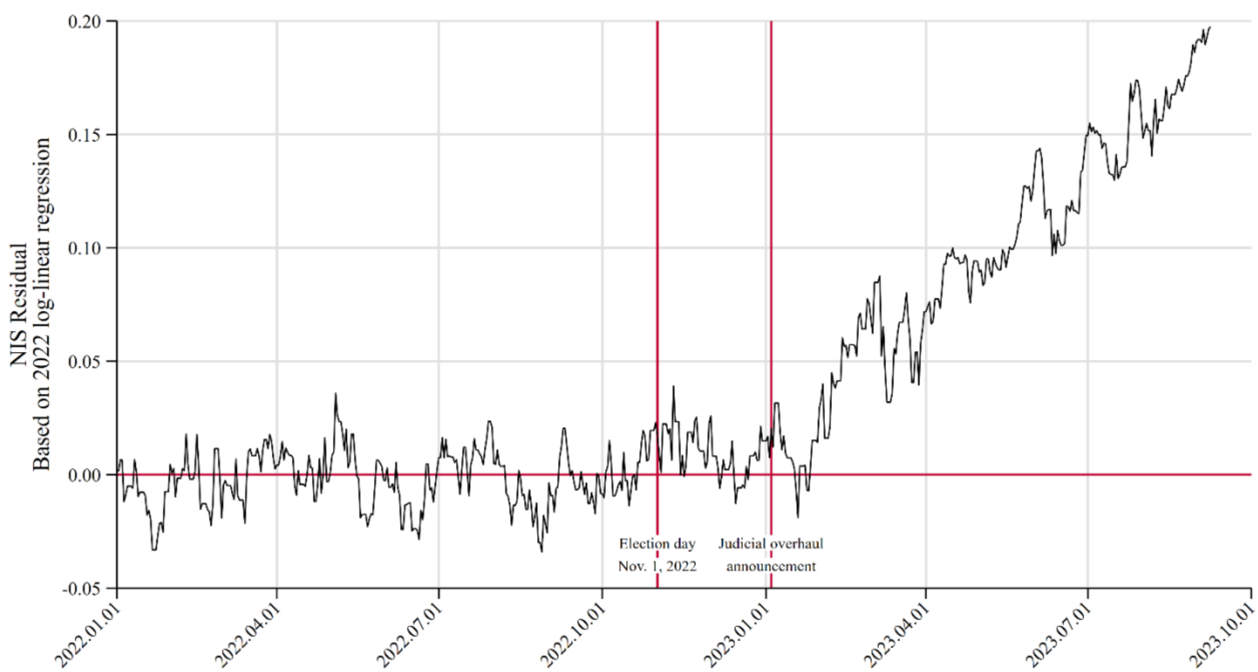
The "errors" relative to the forecasts, based on the regression coefficients for 2022, are plotted over time in Figure 2. Until the end of January 2023, the absolute value of excess

[19] In the past year, for example, the Israeli and American central banks raised their rates, but the upturns were foreseen, gradual and, more important, almost concurrent in both markets. Similarly, there was no sudden intervention of the Bank of Israel in the foreign exchange market, as the Bank's reserve did not undergo an unusual change during that time. Therefore, these factors cannot explain the steep depreciation of the NIS relative to the forecast based on the S&P 500 index.

depreciation was almost always smaller than 2 percent. Since then, however, excess depreciation has been rising persistently, reaching 20% by early September 2023; by that time, the predicted USD/NIS exchange hovered around 3.19–3.23, while the actual rate was more than 60 Agorot higher (NIS 3.80–NIS 3.85).

Figure 2

Excess NIS depreciation



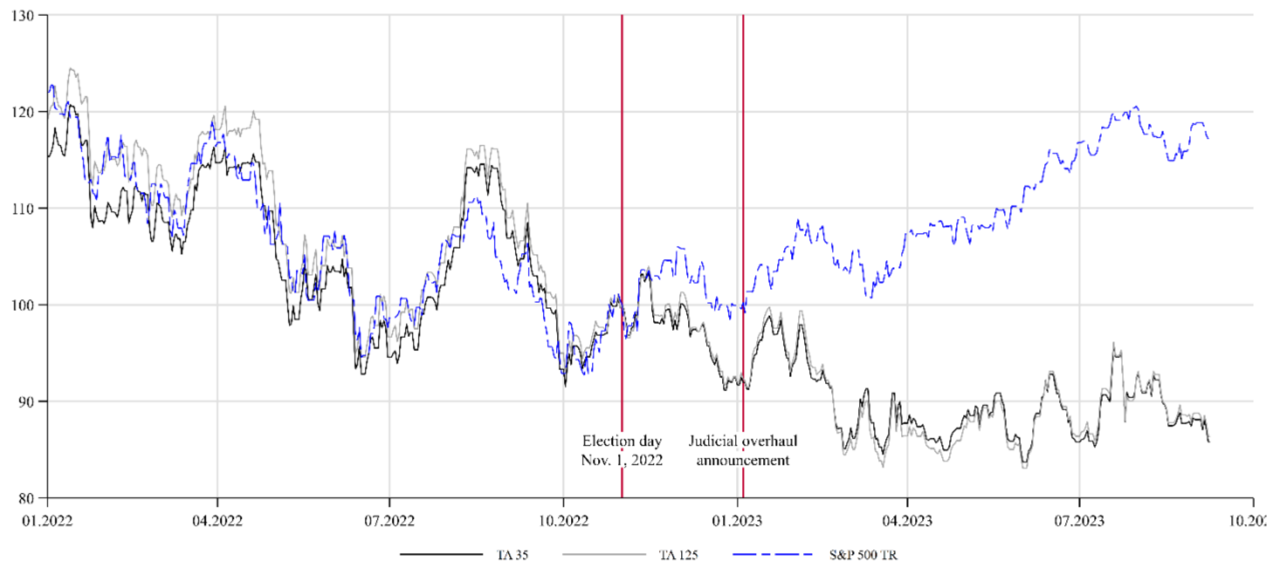
Note: Excess depreciation is the difference between the USD/NIS exchange rate and its predicted value based on log-linear regression on 2022 data, as a ratio of the predicted exchange rate. For example, on Sept. 8, 2023, the actual exchange rate was 3.842 whereas the predicted exchange rate was 3.209, and therefore excess depreciation was $\frac{3.842-3.209}{3.209} = 0.197$.

Yield spreads in the equity markets

The performance of the Israeli stock market gives yet another perspective on Israel's capital outflow. As in the case of excess depreciation of the NIS, we use the strong short-run correlation between the American and the Israeli stock indices in order to detect excess negative returns of Israeli stocks. Figure 3 juxtaposes the time trend of the S&P 500 and that of the TA 35 and TA 125—the latter two converted into USD terms and all indices normalized to 100 on the most recent Election Day (November 1, 2022). Up to the end of 2022 the Tel Aviv indices tracked the American index with exactitude, with a few deviations and no drift. In fact, what we have here is an almost perfect pre-trend that allows us to hypothesize that, absent of shocks, the Israeli indices would have continued on the same path. Shortly after Election Day, however, the trends decoupled, the Tel Aviv indices branching away from the S&P 500 with remarkable vigor. By early September 2023, the TA indices were underperforming by 25–27 percent relative to the comparison index, which, in our judgment, approximates the counterfactual scenario absent the political shocks of recent months (12–14 percent loss of value in USD terms as against a 15–18 percent increase in value in the American index). The underperformance reflects not only the NIS slump of the Israeli indices but also the currency depreciation that occurred. In other words, an investor who bought Israeli stocks on Election Day would be left at this writing with 27 percent less in USD terms than an investor who invested the same sum in American stocks on the same day.

Figure 3

The Tel Aviv and S&P 500 indices



Notes: the values of the TA 125 and TA 35 indices and the American S&P 500 index are normalized to 100 on Election Day (November 1, 2022). The three indices trended almost identically until Election Day; afterwards, the Israeli indices and the American index parted ways. The spread widened steadily until the end of the sample period in early September 2023.

Concluding Thoughts

In this short paper, we document two large changes in the value of Israeli financial assets. We attribute these changes to the judicial overhaul that was advanced by the new government starting in January 2023. Our interpretation is that these changes stem mainly from an expected long-run damage to the Israeli economy. In other words, the judicial overhaul lowered investors' expectations regarding the performance of the Israeli economy in the long and medium run. That said, at the present writing, the coalition's ability to realize its schemes fully seems unlikely. If so, may some of the short-run damage already sustained be repaired? And may the long-run damage be avoided? On the one hand, there is reason to fear that the answer to both questions is negative. The sweeping move to pass the judicial overhaul into law without trying to anchor it in broad consent broke the unwritten rules of the political system, those that define how comprehensive changes such as these should take place. Therefore, even if a short-run compromise is found, there is reason to fear that future political alignments will again try to apply a similar reform and this time, perhaps, succeed. Accordingly, when foreign investors consider whether to place their money at long-run risk and tether its fate to that of the Israeli economy, they will take into account the possibility of material and fundamental change in the business environment and the statutory framework in which they operate.

On the other hand, the events of the past few months demonstrated the strength of Israel's civil society and its willingness to mobilize in defense of democratic values and, through them, to bolster its long-term economic outlook.[20] Insofar as Israel's civil society power persists and even grows, it will be possible to assume, cautiously, that some of the damage already inflicted on the Israeli economy may be reversed.

---

20 For instance, According to Moody's in-depth report on the Israeli economy from November 20, 2023, (p.7): "The strength of civil society and the judiciary is scored at "a", with civil society having emerged as a highly effective check on the exercise of government power in the context of the government's judicial overhaul plans."