Domestic asset purchases by the Bank of Israel during the pandemic

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Abstract

The Bank of Israel rolled out two large-scale domestic asset purchase programmes during 2020: a government bond programme and a corporate bond programme. The Bank of Israel committed to purchasing domestic assets worth ILS 100 billion – about 7% of GDP. This paper reviews the background, considerations and impact of these two asset purchase programmes, both of which are on a macroeconomic scale and are ongoing. A preliminary assessment suggests that these programmes significantly reduced government bond yields and corporate bond spreads. In our view, the commitment made in advance by the Bank of Israel to purchase well-defined, sizable quantities of bonds, as well as timely rollouts of the programmes, were key to their success.

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1. Introduction

What are the chances that within the space of an hour the Bank of Israel (BOI) and the Board of Governors of the Federal Reserve System (the Fed) would launch uncoordinated government bond asset purchase programmes? This is exactly what happened in March 2020, when a global meltdown of financial markets was triggered by news of the spread of the Covid-19 pandemic and led the Fed and the BOI to move in unison.

As a general principle, it is more efficient and elegant to conduct monetary policy by adjusting the key interest rate rather than through indirect quantitative operations. The simple rationale is that it is better to control prices rather than quantities. However, cracks in this paradigm appeared in the previous decade, when central banks acted as market makers of last resort and the proximity to the zero lower bound interest rate limited the ability of central banks to deliver the extent of monetary accommodation that was deemed necessary. This opened the door for asset purchases (APs) as legitimate monetary instruments. In addition, unconventional tools, including APs, were always part of the toolkit which central banks could use in times of crises when financial markets were disorderly.

The BOI, like other central banks, has two modes of operation. In normal times, inflation and output are the focal points of its policies. In abnormal times, financial market stability, credit flow and liquidity become more important. The Covid-19 crisis clearly falls under the definition of the latter, causing dysfunction in the forex (FX) swap market, disruption in the government bond market and considerable stress in the corporate bond market. After it succeeded in stabilising the markets, the BOI looked for additional tools for "doing more" ie delivering additional monetary accommodation.

This is the context under which the BOI has activated two AP programmes: the government bond purchase programme was rolled out in March 2020 and the corporate bond purchase programme was announced in July 2020. The government bond programme was reactive in nature, motivated by market liquidity and stability concerns that were the background to the decision to intervene. The corporate bond programme was more proactive and preemptive, designed to deliver additional monetary easing and aimed at supporting credit conditions.[3]

This paper reviews the background, considerations and impact of these two AP programmes, both of which are of a macroeconomic scale and ongoing. It is probably too early to give a full account of their pros and cons. The ultimate test – how to smoothly exit from these programmes – is yet to come. Though the lessons from the BOI's 2009 government AP programme suggest that a buy and hold strategy should facilitate a smooth exit. However, our assessment is preliminary at this stage.

[3] In parallel there were targeted programmes aimed at supporting credit provision by banks to private micro and small firms.

2. A chronicle of financial markets distress: turbulence and stabilisation

Government domestic currency bonds are the backbone of the financial market. In addition to funding the government, government bonds are a centrepiece of private wealth and a fundamental benchmark for financial assets. As such, it is imperative to have a well-functioning, liquid and stable market in which those bonds can be traded. Normally, the sovereign bond market is the deepest and most stable part of the financial market. In developed economies, sovereign bonds are a safe haven and the demand for those bonds during crises increases. The correlation between yields and the macroeconomic cycle usually allows governments to issue debt at lower costs exactly when it is needed most, during economic downturns. Because government yields are an important benchmark for the credit market, the decrease in yields during downturns reduces, on the margins, the cost of borrowing for corporates and households alike.

Government bonds in Israel evolved as expected during the first stage of the Covid-19 crisis. Flight to safety compressed the 10-year sovereign yields by half (Graph 1, bottom left-hand panel). However, this phase ended abruptly in early March, when the market became one-sided: with only sellers active, government bond yields spiked and liquidity dried up.

Other markets also showed similar signs of distress. In the corporate bond market, spreads widened sharply (Graph 1, top right-hand panel), issuance dried up and overall liquidity plummeted. In the foreign exchange market, a shortage of dollar liquidity caused the implied shekel interest rate to plummet and participants claimed they were unable to hedge currency exposures. This was a global phenomenon, but it was more pronounced in the shekel-dollar market than in the euro-dollar market (Graph 1, bottom right-hand panel). A non-financial crisis turned into one characterised by severe financial stress through four distinctive factors:

- worldwide equity corrections (Graph 1, top left-hand panel);
- massive outflows from domestic mutual funds, most of which are multi-asset funds;
- margin calls on the foreign equity derivatives holdings of institutional investors; and
- large short-dollar positions by institutional investors.[4]

Financial asset repricing was inevitable in early March, when suddenly it had become clear that the Covid-19 virus was not limited to China and it was spreading uncontrollably. The factors above exacerbated the extent of the problem in Israel and the result was a disorderly adjustment process.

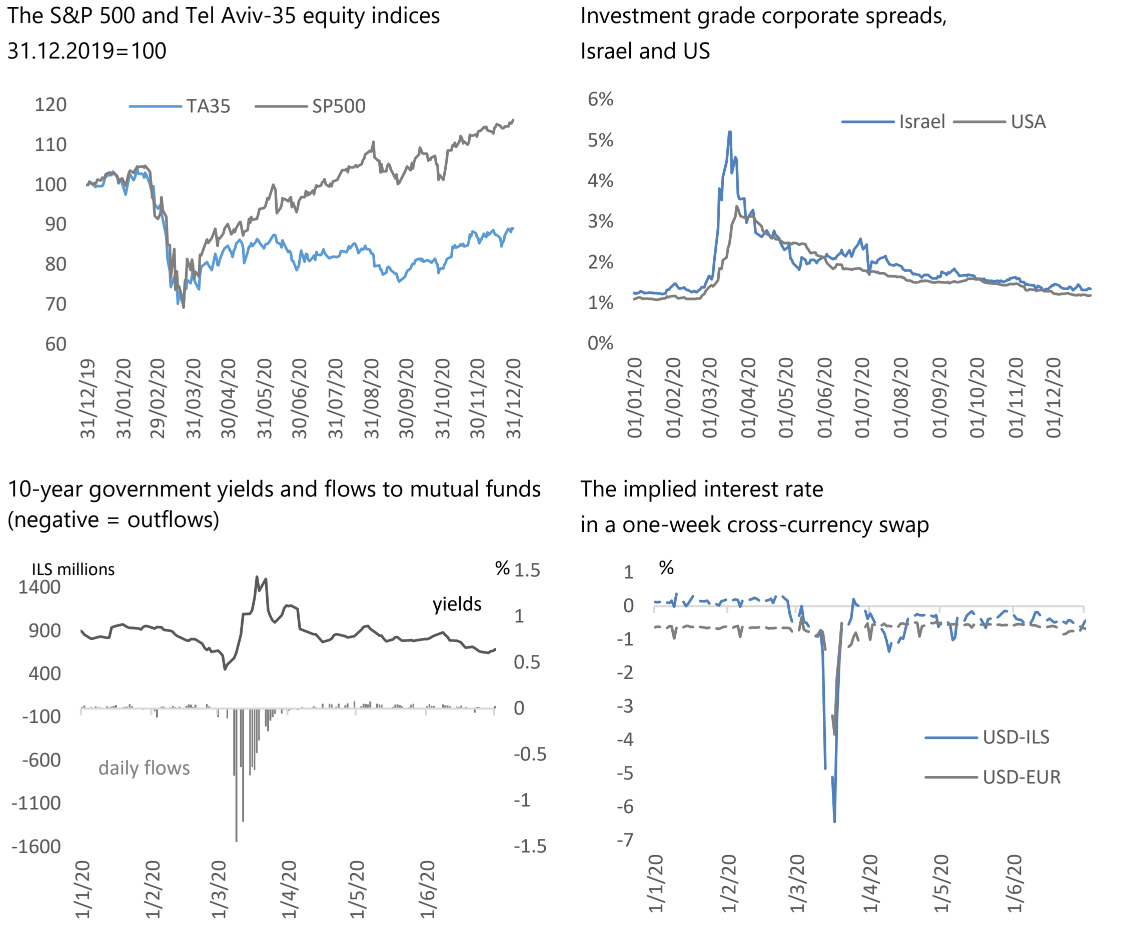
Equities dropped globally and at home (Graph 1, top left- hand panel) while in the corporate bond market spreads widened (Graph 1, top right-hand panel). These events triggered outflows from multi-asset mutual funds, a popular and liquid investment vehicle in Israel. This put additional pressure on the prices of these assets and on government bond yields as well, as these funds hold a large proportion of

4 These factors are not unique to Israel – a similar combination of the last two factors was also at play in Norway. See Alstadheim et al (2021).

government bonds (Graph 1, bottom left-hand panel). In order to meet the redemptions on the funds, the managers were forced to liquidate government bonds, their most liquid asset. Meanwhile, the global risk-off triggered margin calls on foreign equity derivatives held by institutional investors. The institutional investors did not have access to a large enough pool of dollar liquidity to meet these margin calls and were forced to raise dollars, initially in the FX swap market. As a result, the cross-currency basis in the swap market widened (also due to a global dollar shortage). This pushed institutional investors to liquidate their government bonds at any rate and use the shekel proceeds to buy dollars in the spot market. The result of the two processes above was a "fire sale" of Israeli government bonds, which was driven by their interconnectedness with other assets and not by their intrinsic value.

Equity, bond and FX swap markets in 2020

Graph 1



Source: Bank of Israel

These events led the BOI to move swiftly in order to stabilise the markets on several fronts. First, on 15 March, the BOI announced that it would purchase government bonds in order to stabilise the markets. In addition, the repo facility was made more flexible and access to it was widened to institutional investors.[5] These measures were taken to stop the "fire sale" in the government bond market and to

5 The repo facility was introduced in March and the collateral spectrum was widened in April.

facilitate an alternative source of shekel liquidity without having to actually sell the bonds.[6] The FX swap market dysfunction was dealt with on 18 March by offering banks and institutional investors swap lines with the BOI, at up to USD 15 billion, at rates set lower than those in the market.[7]

While all these actions were necessary and managed to stabilise the markets, government and corporate bond yields remained elevated. Given the sharp downturn in economic activity and inflation, the Monetary Policy Committee (MPC) was interested in delivering additional monetary accommodation. As the interest rate was already very low at 0.25% and medium- and long-term bond yields were relatively high, the MPC decided to apply "quantitative easing" and announced a large-scale government bond purchase programme.

3. The government bond asset purchase programme

On 23 March, the BOI announced that it would purchase government bonds worth ILS 50 billion. The strong, unequivocal commitment (ie not "up to 50 billion" etc) delivered a signal of the BOI's actions in the future – a "forward guidance" component that the 15 March announcement had lacked. The size of the programme – at about 4% of GDP and 10% of domestic tradable debt – was set to balance between the need to have an impact on yields and considerations regarding liquidity and risks of fiscal dominance (real or perceived).

The impact on yields of the announcement and the subsequent purchases that followed were substantial. The curve flattened almost immediately – about 30 minutes after the announcement – and 10-year yields dropped by 30 basis points. External help came in the form of a contemporaneous and comparable move by the Fed. In a few days, after the dust had settled, it became clear that the programme delivered exactly what it was supposed to – a relatively flat and stable yield curve, similar to the one in early 2020. A recent cross-country study (Rebucci et al (2020)) shows that the short-term effect of the BOI's announcement on yields stands out when compared to advanced economies and it resembles the average effect in emerging markets (Graph 2, left-hand panel). In addition to its direct impact, the programme immediately triggered a compression of corporate spreads that decreased to comparable levels to those in the US (Graph 1, top right-hand panel).

Still, it was unclear how long this achievement would hold and how the market would react to the sharp increase in the fiscal deficit and the issuance of unprecedented quantities of government bonds.[8] Although fiscal conditions have become much more challenging and the coverage ratio in the primary market auctions fell, the market was able to absorb the higher quantities in the rest of 2020

6 Non-banks have been included in the group of potential counterparties and corporate bonds have become eligible collateral.

7 Dollar illiquidity was a global problem and led several other central banks to offer swap lines as well. Unlike other central banks that had back-to-back swap lines with the Fed, the BOI used its own FX reserves to finance the operation.

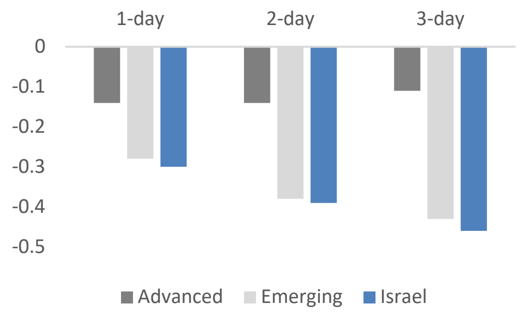
8 The BOI purchases government bonds in the secondary market only. The BOI law prohibits purchases of government bonds directly from the government either in or out of the market.

(Graph 2, right-hand panel) without an adverse price reaction (Graph 1, bottom left-hand panel).

The BOI purchased government bonds worth ILS 46 billion in 2020 under the programme.[9] In November 2020, the BOI replenished the programme's budget by an additional ILS 35 billion, bringing the total budget to ILS 85 billion. The additional allocation enables a continuous execution at the current pace of purchases throughout most of 2021.

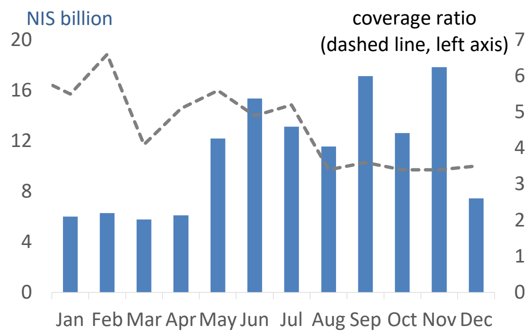
The impact of the government asset purchase programme on yields and issuance — Graph 2

The impact of asset purchase programmes on 10-year yields, in a 1-2-3 day window after announcement, %



Source: Based on estimates by Hartley and Rebucci (2020)

Monthly issuance of tradable government debt and the average coverage ratio in 2020



Source: Israeli Ministry of Finance

4. The corporate bond AP programme

The spike in the corporate spreads in March was drastic and some of the mechanisms that were discussed in the previous section, such as the outflows from mutual funds, were also at play here. After the announcement on the government AP programme, corporate yields dropped by more than the drop in government bond yields due to an additional drop in corporate spreads – and the spread continued to narrow in April. At that point, it seemed the corporate bond market did not require additional direct support. However, concerns about a potential credit squeeze and a slow but steady increase in corporate spreads in May and June, led the BOI to roll out a corporate AP programme in early July.

The corporate bond programme was designed early on as a contingency. The plan was to purchase corporate bonds based on their market cap of outstanding eligible debt.[10] The credit quality threshold for purchases was set to bonds rated "A-" or higher (local ratings in Israel are two notches higher than elsewhere, so the top tier of high-yield debt was also included).

The corporate AP programme invoked several controversial issues at the outset. Firstly, intervention by the BOI in the corporate bond market might exacerbate moral

9 Although the BOI's AP programme is sizable, it is still lower than the increase in debt issuance. In addition to issuing debt in local currency presented here, the MOF stepped up issuance of foreign currency denominated debt since March 2020.

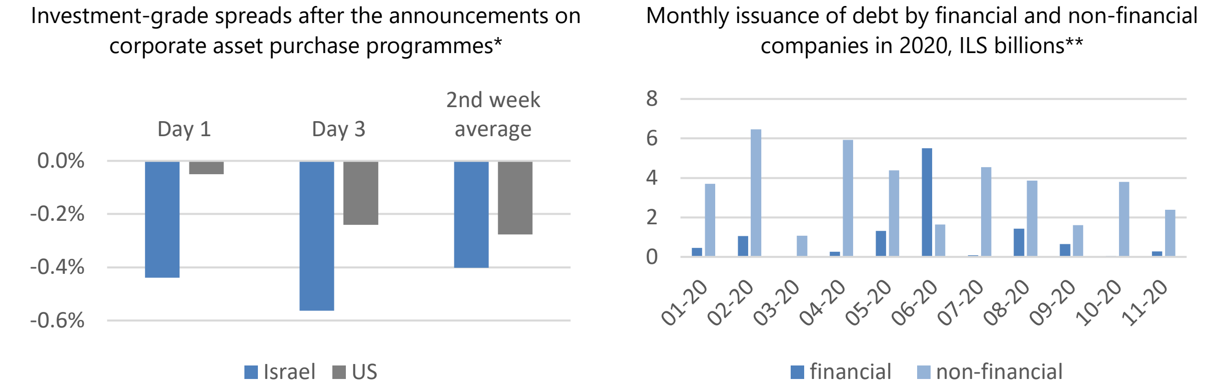
10 Foreign companies that issued debt in Israel and unconventional bonds were excluded.

hazard risks. In the event of future credit events, the BOI would have to write-off the losses and transfer resources between the public and private sector – a quasi-fiscal operation. Unlike other central banks, the BOI does not have a reimbursement mechanism in place with the government to compensate for these losses. The programme also puts the BOI in an awkward position and creates a potential conflict of interest because the BOI is both a debtor and the supervisor of banks at the same time. Nonetheless, the BOI Law is flexible enough to accommodate the programme. The investment grade (IG) credit rating is expected to keep credit losses at a low level, and the total return on the corporate portfolio is expected to be positive even under adverse conditions – credit losses are expected to be financed by capital gains on the rest of the portfolio.

The increase in spreads between May and June was neither dramatic nor erratic. Therefore, launching the corporate AP programme was not an easy, straightforward decision. Perhaps an additional factor helped the BOI to reach the tipping point – the BOI routinely invests in corporate bonds in the US and Europe as part of its FX reserves portfolio, via an in-house corporate desk. Hence, the asset class and its associated risks are well known. The availability of well-trained staff and the organisational know-how paved the way – psychologically and practically – to doing so at home. In addition, corporate bonds in Israel are traded on the stock exchange electronically, which enables a streamlined process.

As the real economy deteriorated as a result of a severe lockdown, considerations tilted, on balance, towards activating the programme. On 6 July, the BOI announced it would purchase bonds worth ILS 15 billion, representing slightly above 1% of GDP and 6% of the eligible corporate debt at the time. The BOI started to implement the programme minutes after the announcement, which attests to the capacity mentioned above.

The impact of the corporate asset purchase programme on spreads and issuance — Graph 3



*The figure shows the drop in investment grade spreds in Israel following the 6 July announcement, compared with the drop in IG spreads in the US following the Fed's announcement on the Secondary Market Corporate Credit Facility (SMCCF) on 23 March 2020. The third colunm is the weekly average one week after the announcemments.

**Financial companies include banks, insurance companies and non-bank credit providers.

Source: Bank of Israel

The programme came as a surprise, and the spreads reacted accordingly by a drop of about 40 basis points.[11]

A comparison of the impact of the BOI's corporate bond programme on spreads vs the Fed's announcement on the Secondary Market Corporate Credit Facility (SMCCF), in a methodology in line with Rebucci et al (2020) – ie at variable time spans – points to the relatively high impact of the BOI's programme (Graph 3, left-hand panel). The difference may be explained by the fact that while the BOI moved to immediate implementation, the Fed began to purchase corporate bond ETFs a month after the announcement, so the Fed's impact on the Investment Grade (IG) spread is a clean announcement effect (see Sharpe and Zhou (2020)). In addition, the comparison does not control for the possibly higher uncertainty around Covid-19 in March vs July.[12] It is also possible that the BOI's announcement had a stronger impact than the Fed's because this is the first time a corporate bond programme had been announced in Israel. The IG spread in Israel continued to decrease slowly in the rest of 2020 and since the programme launched, it has usually only been slightly higher than the US IG spread.

The programme was also motivated by the goal of supporting the primary market and enabling firms to rollover their debt at a relatively low cost. After the primary market froze in March, debt issuance by non-financial corporates bounced back in full in April following normalisation in the market and the decrease in yields, but started to decline again in May and June.[13] The corporate AP programme reversed this trend and issuance by non-financials bounced back in July and August. As for financial corporates, the BOI offered very attractive substitutes, such as medium-term lending to banks.[14] This reduced the banks' reliance on wholesale funding and released supply for issuances among non-financials.

5. Conclusions

The BOI rolled out two large-scale AP programmes during 2020. Put together, the BOI committed to purchase domestic assets worth ILS 100 billion. While government bonds were purchased in 2009, the corporate bond AP programme is a novel addition to the BOI's toolkit. Both programmes are a form of quantitative easing – additional monetary accommodation near the zero lower bound, but they were also designed to stabilise financial markets and to reduce the probability of market turbulence.

Yields have been low and stable since the inception of the government AP programme in March 2020. It is difficult to isolate the programme's contribution to this outcome, as clearly other factors were at play: inflation in Israel is exceptionally low, the economy has outperformed relative to most OECD economies in terms of output and Israel has maintained its credit rating in a global environment of credit

[11] Although on the same day, the BOI lowered its macroeconomic forecast.

[12] The SMCCF also had other benefits as was introduced when liquidity dried up and it reduced the transactions cost. See O'Hara and Zhou (2021).

[13] The bounce in April may have been the result of a completion of issuances that were already in the pipeline.

[14] The cheap loans, some of which carry a negative interest rate, were designed to encourage banks to lend to micro and small firms.

downgrades. Even so, the AP programme is probably a major contributor to the favourable conditions in the government bond market.

The corporate bond programme reversed a slow but steady increase in corporate bond yields between May and July 2020 and contributed to a boost in the issuance of corporate debt. Although the programme had clear benefits, it is unclear whether it was essential. Only ILS 3.4 billion has so far been purchased (as of 31 January 2021). It is possible that the spreads are still affected by the programme's framework even when actual purchases do not take place. Thus, the programme might have eliminated a "bad equilibrium" with a negative feedback loop between the spreads and defaults, and added a safety net at a bearable cost. In a major crisis, it is probably better to err on the side of doing too much monetary easing rather than too little.

The strong signal that was associated with the government and corporate bond purchase programmes was imperative for normalising conditions in the bond markets. In our view, the commitment made by the BOI in advance to purchase well-defined, sizable quantities was key. This explicitly Odyssean form of forward guidance comes at a cost, but may nevertheless be indispensable.

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