ANNUAL REPORT 2020

GOVERNMENT DEBT MANAGEMENT UNIT
ACCOUNTANT GENERAL'S OFFICE
MINISTRY OF FINANCE

TABLE OF CONTENTS

Message from the Accountant General 4

01

SNAPSHOT

Debt-to-GDP Ratio 6
Interest Expenses on Government Debt..... 6
Credit Ratings..... 7
Government Debt Funding in 2020..... 7
Government Debt Portfolio 7
Government Debt Risk Indicators..... 8
Global Debt 9
Government Debt Exposure to Currency Risk 9
Trading Government Bonds in the Secondary Market ... 9
In Summary..... 10

02

COVID-19

Background 12
Economic Impact 12
Covid-19 in Israel 14
Debt Management Policy 15

03

STRATEGY

Government Debt Management Goals 18
Issuance Amount..... 18
Issuance Strategy..... 18

04

PRIMARY MARKET

Issuances 24
Tradable Domestic Debt 24
Funding in the Tradable Domestic Market 25
Coverage Ratio 25
ATM 26
Switch Auctions 26
Buyback Auctions 27

Non-Tradable Domestic Debt 28
Implications of the Covid-19 pandemic 29
Long-Term Implications of Issuing Designated Bonds... 29

Global Debt 34
Sovereign Issuances 34
Privet Placements 34
Sovereign Issuance – January 2020 34
Sovereign Issuance – March-April 2020 35
Israel Bonds Organization 36
Issuances Guaranteed by the U.S. Government 37
Loans from Foreign Governments and Other Lenders .. 37
The State of Israel's Credit Rating 37
Credit Rating Agencies Review Israel 38

05

SECONDARY MARKET

Primary Dealership in Government Bonds 40
Primary Market Ranking 41
Secondary Market Ranking 41
Trading Volumes in Government Bonds 42
Breakdown of Trading by Segments 42
Yield Curve 43
Development of the CDS Spreads 44
Bond Lending Facility 44
Breakdown of Holdings in Tradable Government Bonds .. 45
Benchmark 46

06

DEBT PORTFOLIO

Debt Portfolio 48
Debt-to-GDP Ratio 48
Interest Expenses 50
Government Debt Risk Management 51
Average Series Size and Number of Series 55

Organizational Chart Government Debt Unit 56

Message from the Accountant General

Looking back at 2020, it is remarkable the degree to which daily life transformed around the world. Globally, the COVID-19 pandemic and government actions in response, required millions of people to stay at home for long period of times, many lost their jobs and caused many loss of lives. Most economies experienced significant upheaval and considerable loss of GDP. At the same time, governments were essential in providing unprecedented economic and civilian aid, while central banks supported volatile capital markets. Governments around the world, including Israel, needed to expand fiscal capabilities resulting in increased deficits.

As with other countries, Israel had to navigate the pandemic's consequences starting in March. In addition to three extensive statewide lockdowns, other restrictions were placed on economic activity and businesses throughout the year. In-classroom education closed, numerous businesses were shuttered, and many workers went on unpaid leave. By the end of the year, Israeli GDP contracted by 2.6%. Although this was the state's first year of negative-growth in a long time, the end result was better than initially expected and relatively less as compared to peer countries. The state was able to perform comparatively well due to the overall structure of Israel's economy, including an outperforming high-tech sector, and continued surplus in the current account. In 2020, Israel's credit rating was affirmed by all three major rating agencies.

Israel responded swiftly to the crisis by moving to an expansionary fiscal policy. Budgetary and credit relief programs were implemented out of which approximately NIS 105 Billion were realized in 2020. In addition, for the first time the government budget was managed through the continuation budget policy for the entirety of the year. Broad economic assistance and reduced state revenues resulted in the deficit of approximately 11.6% of GDP, a significant increase from 3.7% in 2019. The sharp rise also meant a notable increase in financing needs.

The Government Debt Management Unit (GDMU), was tasked with raising approximately NIS 265 billion. At roughly 230% the amount required in a typical year; this was an unprecedented volume for the team to raise in a single year. The GDMU was tasked with raising these funds, despite these obstacles challenging given uncertain conditions and shifting markets, in a smooth and straight-forward method.

The professional management of government debt, which combines a long-term strategy and short-term adjustments, supported the government's ability to significantly increase the volume of debt raising without significant additional risk and without increasing financing costs. However, the increased issuances derived from the economic situation led to an increase in the debt-to-GDP ratio in 2020. Going forward, additional fiscal measures will likely be required on both the expenditure and revenue sides, with an emphasis on approving the state budget and ensuring economic growth. It is very important to reduce the deficit after the end of the crisis and return to the trend of consistent and continuous decline in the debt-to-GDP ratio.

In this year, as in previous years, most of the government funding originated in the domestic market, where the volume of issuances increased gradually and was supported by a good market conditions for most of the year and with the assistance of the Bank of Israel's bond purchase program. In the external market, two additional global issues were completed in addition to the issuance in January, each amounting to USD 5 billion and even included a 100-year tranche. The robust and quick access to the capital markets in Israel and abroad testifies to investors' confidence in the Israeli economy and its financial strength, and to the state's ability to reach a broad funding base in a short time, even during a global crisis.

I would like to thank the GDMU employees in the Financing and Credit Division of the Accountant General for their professional and devoted work.

Respectfully,

Yali Rothenberg
Accountant General
Israel Ministry of Finance

SNAPSHOT

01

Annual Report No.19 of the Government Debt Management Unit in the Accountant General's Office, for the year 2020

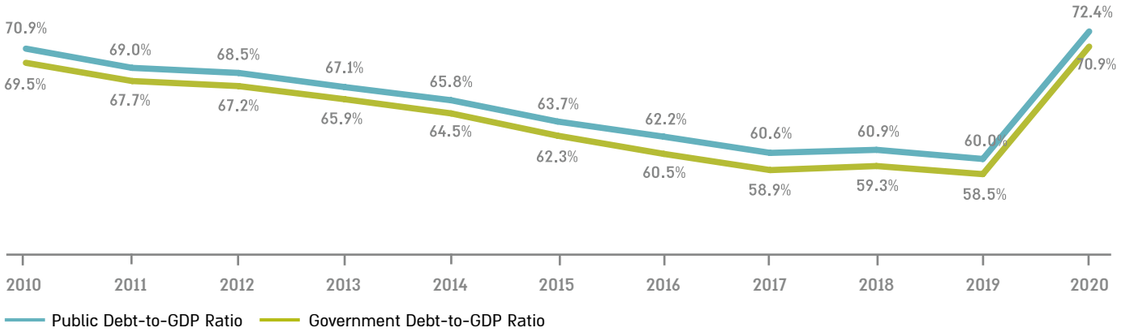
Snapshot

The Government Debt Management Unit in the Accountant General's office is proud to present the 2020 Annual Debt Report.

DEBT-to-GDP RATIO

Over the past decade, the state of Israel has substantially decreased its debt-to-GDP ratio. The trend of lowering the ratio is a direct result of ongoing prudent economic policy. Lowering the debt ratio contributes to the country's financial strength. However, Israel's public debt-to-GDP ratio increased from 2019 to 2020 by approximately 12.4%, to 72.4%. In addition, Israel's government debt-to-GDP (excludes quasi-government and local authorities) increased from 2019 to 2020 by 12.4% to 70.9%.

Government and Public Debt-to-GDP Ratio in 2010-2020

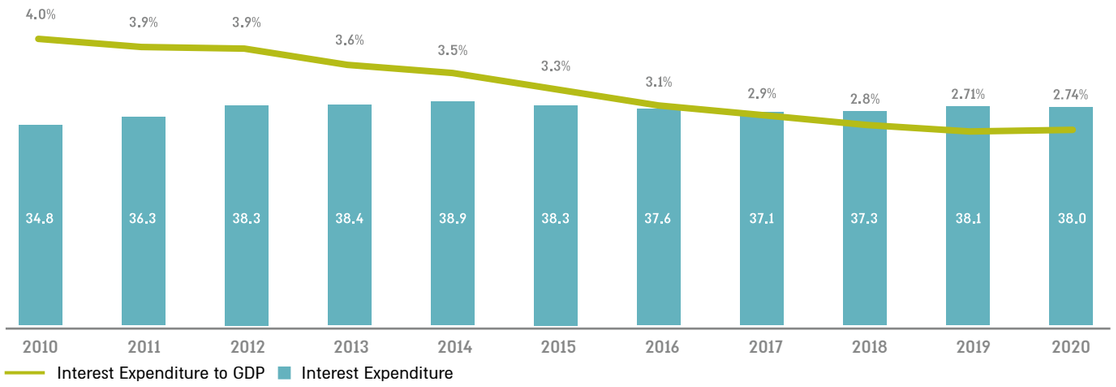


Israel's debt-to-GDP ratio increased, after the ratio fell nearly 11% in the last decade, to 58.5% in 2019. The increase in debt-to-GDP stems from the significant increase of government funding required to respond to COVID-19. Despite the rise, the ratio increased at a lower rate than forecast. This is mainly due to reduced actual funding relative to the preliminary forecast as well as deflation and revaluation of the shekel against the U.S. dollar and euro in 2020.

INTEREST EXPENSES ON GOVERNMENT DEBT

The rate of interest expenses relative to GDP was approximately 2.74% in 2020, compared to 2.71% in 2019. This rate has steadily declined over the past decade. Interest payments on local tradable debt declined nominally.

Interest Expenses Relative to GDP in 2010-2020 (NIS, billions; percentage)



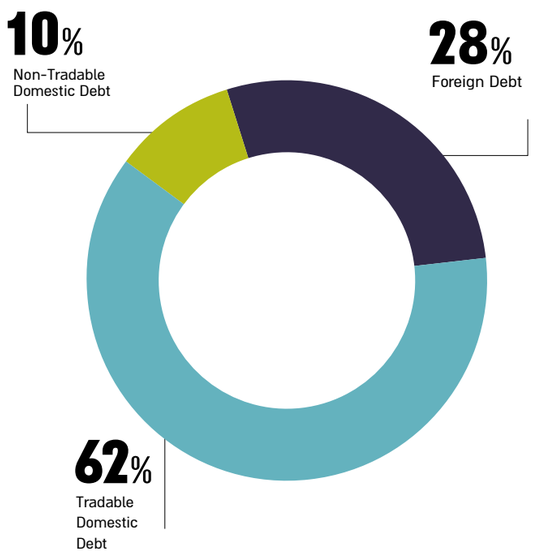
CREDIT RATINGS

In 2020, all three credit rating agencies affirmed Israel's credit rating. In January, May, and November 2020, S&P Global Ratings affirmed Israel's AA- credit rating and "stable" outlook. In April 2020 and January 2021, Fitch Ratings affirmed Israel's A+ credit rating and "stable" outlook. In April 2020, Moody's Investors Service affirmed Israel's A1 credit rating and updated its outlook from "positive" to "stable".

Credit Rating Company	Rating	Outlook
Moody's	A1	stable
Standard & Poor's	AA-	stable
Fitch	A+	stable

GOVERNMENT DEBT FUNDING IN 2020

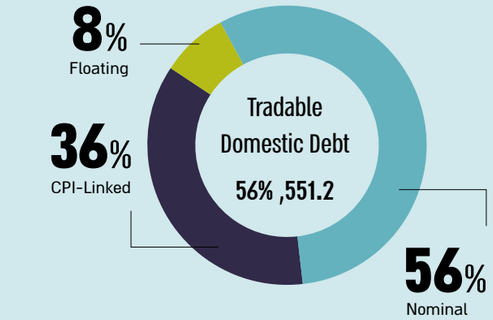
In 2020, approximately NIS 165 billion of tradable bonds were raised along with NIS 26 billion of non-tradable bonds. Additionally, NIS 74 billion of foreign currency bonds were raised in international markets.

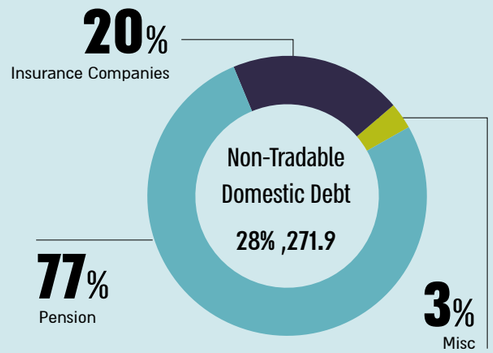


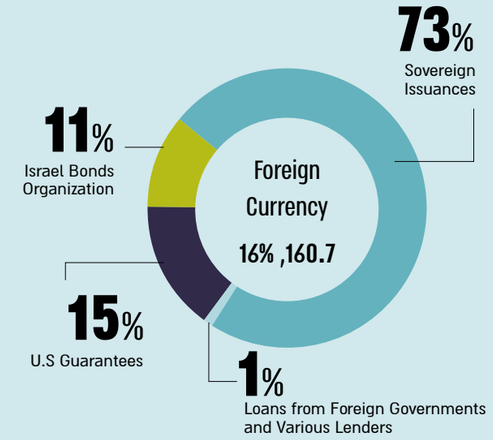
In 2020, government debt increased by approximately 20% to roughly NIS 984 billion, from NIS 823 billion in 2019. Net debt raised is the primary reason for the increase. Other factors leading to the increase in 2020 include market dynamics, such as a significant devaluation of the shekel against both the U.S. dollar and euro.

GOVERNMENT DEBT PORTFOLIO

(NIS, billions, percentage)



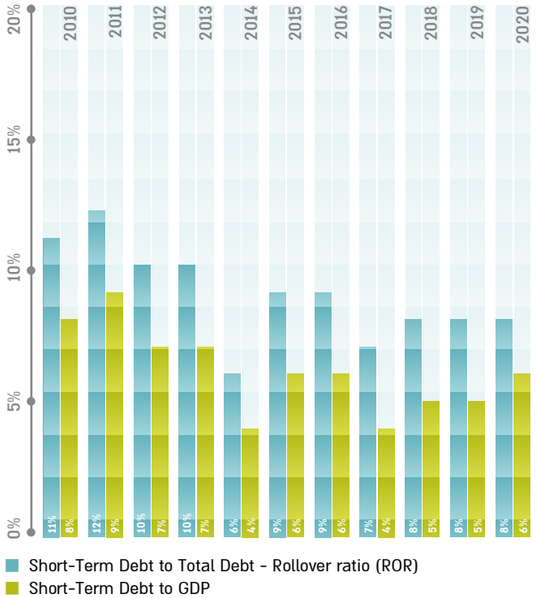




GOVERNMENT DEBT RISK INDICATORS

The rollover ratio[1] remained unchanged from 2019 at 8%, despite significant fundraisng during 2020. The short-term-debt-to-GDP index increased from 5% in 2019 to 6% in 2020. Due to the accountant general's policy of extending government debt maturity, these levels are relatively low in historical terms.

Short-Term Government Debt Relative to Total Debt and Relative to GDP in 2010-2020 (Percentage)



Short-Term Debt to Total Debt - Rollover ratio (ROR)
Short-Term Debt to GDP

Sensitivity of Government Debt to Market Factors in 2020

	Change in Governmen Debt (NIS millions)	Change in Government Debt-to-GDP Ratio (Percent of GDP)
Accumulated Increase in the CPI, in One Percentage Point	4,683	0.34%
Increase in USD-NIS Exchange Rate, in One Percentage Point	1,083	0.08%
Increase in EUR-NIS Exchange Rate, in One Percentage Point	500	0.04%

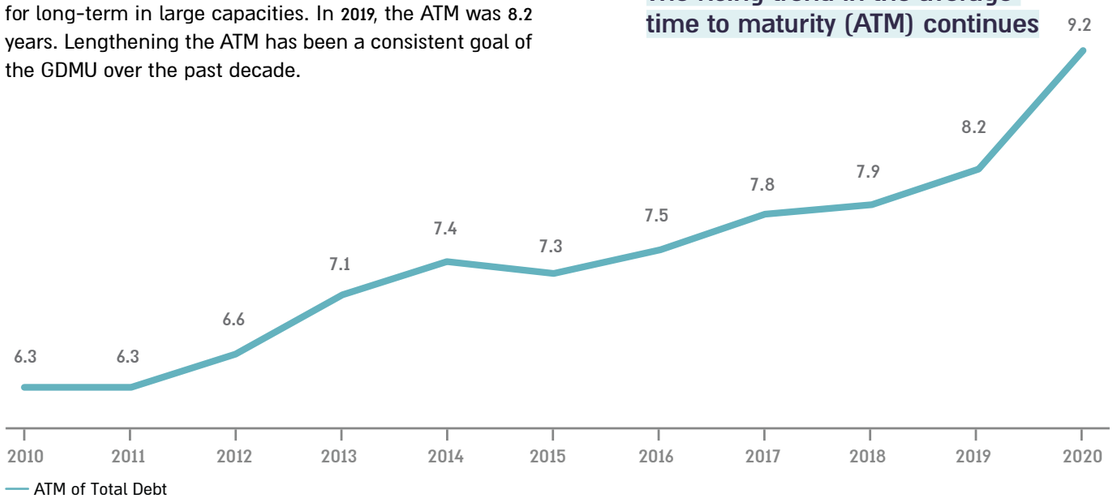
Government debt is highly sensitive to changes in the Consumer Price Index (CPI). In 2020, CPI-indexed debt was approximately 48% of the total government debt portfolio.

Average Time to Maturity of Government Debt in 2010-2020 (Years)

In 2020, the Average Time to Maturity (ATM) index of total debt increased to nearly 9.2 years, due to global issues for long-term in large capacities. In 2019, the ATM was 8.2 years. Lengthening the ATM has been a consistent goal of the GDMU over the past decade.

9.2

The rising trend in the average time to maturity (ATM) continues



[1]Rollover risk (ROR)-is a measure which examines the extent of short-term debt (debt that must be redeemed over the upcoming year) relative to the total debt.

GLOBAL DEBT

In January 2020, a dual-tranche benchmark issuance in U.S. dollars was executed in the global market. The tranches consisted of a 10-year series amounting to USD 1 billion and a 30-year series amounting to USD 2 billion. This issuance was characterized by having the lowest funding cost for the State of Israel in U.S. dollars, with investors from 40 countries participating and approximately USD 20 billion of demand. As a result of the economic impact from the COVID-19 pandemic, Israel's funding needs increased significantly. Israel returned to the global markets in March 2020 with a triple-tranche issuance: a 10-year series amounting to USD 2 billion, a 30-year series amounting to USD 2 billion and a 100-year series amounting to USD 1 billion. This issuance recorded approximately USD 24 billion of demand, the highest for the State of Israel in U.S. dollars. A third public issuance was executed in April 2020. For the first time, Israel co-listed on the Taiwan Stock Exchange ("Formosa") for a 40-year series amounting to USD 5 billion. Additional 2020 funding needs led to a large number of private placement issuances, amounting to approximately EUR 5.6 billion.

GOVERNMENT DEBT EXPOSURE TO CURRENCY RISK

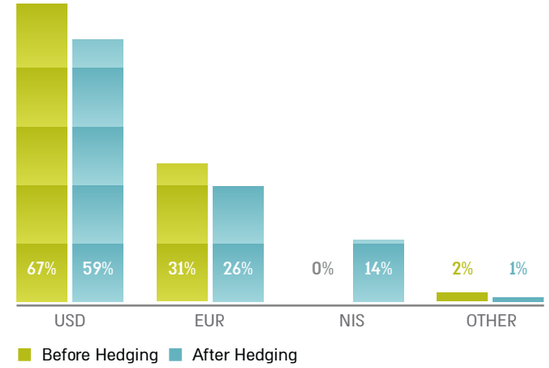
In 2020, Israel's external debt was nearly 16% of total debt. Hedging is utilized to reduce the exposure of external debt to changes in the exchange rates. Hedging transactions are executed over the long-term through cross-currency swaps and over the short-term via forward and FX Swaps.

GDMU focuses on hedging the short-term cash flow exposure, up to one year. In addition, GDMU executes long-term hedging transactions in order to reduce exchange rate exposure in the debt portfolio (5-10 years), according to an orderly methodology and market conditions.

Israel's external debt composition is characterized by a dominance of USD currency. As of the end of 2020, roughly 67% of foreign currency debt was denominated in U.S. dollars (59% after hedging), approximately 31% in euros (26% after hedging) and roughly 2% in other currencies (1% after hedging).

As a result of hedging transactions, approximately 14% of the exchange exposure is denominated in shekels.

Structure by Currency With and Without Hedging in 2020* (Percentage)



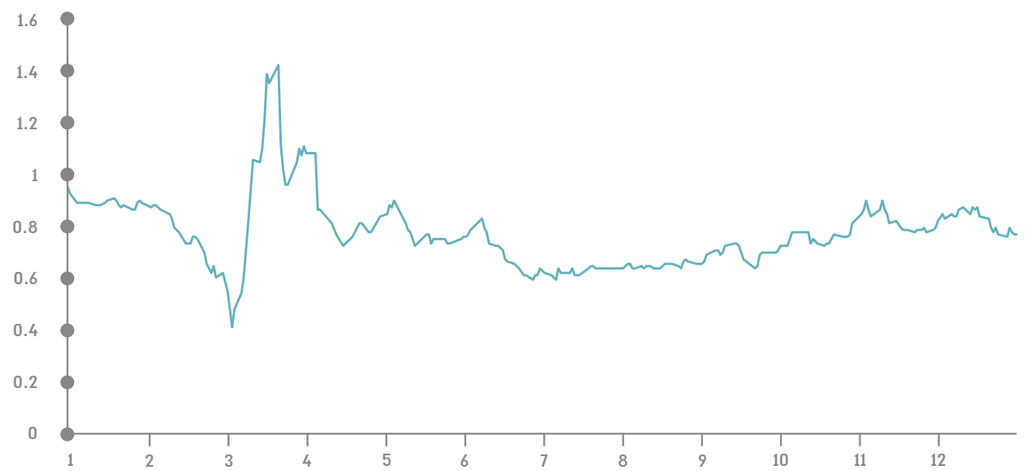
*Without hedging short-term interest

TRADING GOVERNMENT BONDS IN THE SECONDARY MARKET

As with other asset classes, due to the coronavirus pandemic, the Israeli Government Bonds' market was characterized by high volatility in 2020. Market volatility hit its peak in March 2020 when the 10-year government bond yield reached a historic low of 0.42% (March 4) and then increased substantially to 1.41% (March 22).

As with other central banks, the Bank of Israel increased its intervention in the different markets, including initiating a quantitative easing program. The market's volatility stabilized beginning in April 2020 for the remainder of the year. During this period, the 10-year nominal government bond yield remained between 0.6% and 1.1%, ending 2020 at 0.77%, compared with 0.96% at the end of 2019.

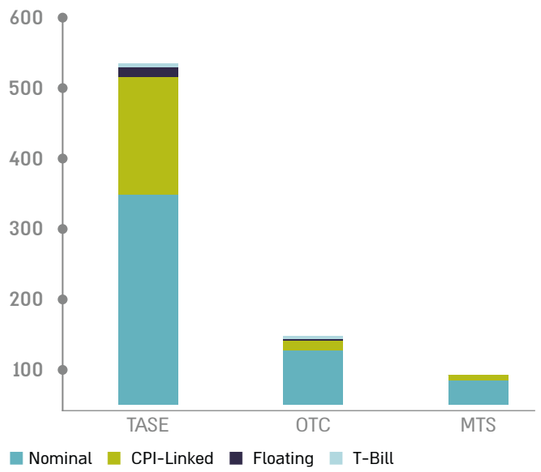
10-Year Nominal Government Bond Yield



Trading volumes in government bonds increased significantly relative to previous years, principally on TASE's trading platform. Several factors that affected volume levels include: increased issuances by the Ministry of Finance, the Bank of Israel's Government Bonds purchase programs, and the inclusion of Israel's Government Bonds in the World Government Bond Index (WGBI).

Total volumes in 2020 reached a daily average of NIS 3.3 billion - the highest since 2015. In 2019, daily average volume was NIS 2.9 billion.

Breakdown of Trading Turnover in Different Segments in 2020 (NIS, billions)



In Summary

Managing debt under normal conditions is an ongoing challenge. Implementing an effective policy for managing the government's debt, financing government activity, and funding the deficit requires both long-term strategic planning and active tactical adjustments based on market conditions and trends in Israel and abroad. This was truly tested in 2020.

The outbreak of the coronavirus magnified the need for ongoing quick, flexible adjustments to strategy as conditions changed, while maintaining long-term objectives as a north-star. Aside from the obvious health and safety effects of COVID-19, the negative consequences of the pandemic struck hard in the economic arena as well. The capital markets and Israel's macro data were negatively affected. The fall in state revenue and sharp increase in government expenditure to fight the virus resulted in a notably high deficit. Fundraising needs hit an all-time high of NIS 260 billion in 2020.

Reflecting on the year, the good news is that the ability to address atypical financing needs during periods of volatility and great uncertainty is a strong indicator of the state's financial strength. It is also a powerful signal of investors' confidence in the state's economy and ability to uphold its obligations. While challenging, we believe 2020 was a test the Government Debt Management Unit passed.

Overall, and in addition to being nimble, debt management policy requires a careful balance between the state as an issuer - aiming to minimize costs given the level of risk and the state as sovereign - and as a debt manager, with the objectives of supporting markets by increasing liquidity of government bonds; improving the government bond market as a whole; exposing the Israeli economy to international investors; expanding the investor base, and creating benchmarks for companies that wish to issue in the capital markets abroad.

Although 2020 was not a typical year, the key factors for determining an effective debt management policy remain the same: establishment and commitment to a strategic policy for managing the financial risks of the government's debt, increased transparency of the strategic policy, and the use of advanced debt instruments for managing funding and liquidity.

Respectfully,

Gil Cohen
Senior Deputy Accountant General
Head of Finance, Debt and Credit Division

COVID-19

02

The Impact of COVID-19 on Debt Management

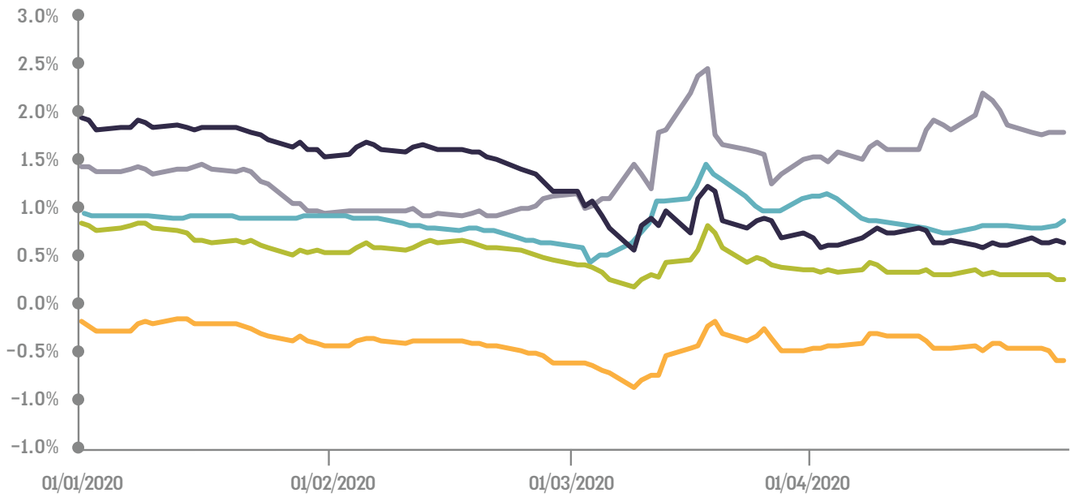
BACKGROUND

In December 2019, the first reports of a coronavirus outbreak in China were made public. By mid-February 2020, the virus - now known as COVID-19 - had already spread worldwide. On March 11, 2020, the World Health Organization officially declared COVID-19 a pandemic. Many countries around the world reacted to COVID-19 by instituting lockdowns, closing borders, and imposing strict social restrictions. As a result of these action aimed act containing the spread of the virus, there were widespread and substantial reductions in economic activity. A significant rise in unemployment followed, restricting some of the world's supply and trade abilities, paired with a fall in global demand. The crisis caused by COVID-19 affected the stability of the financial system and created volatility in capital markets.

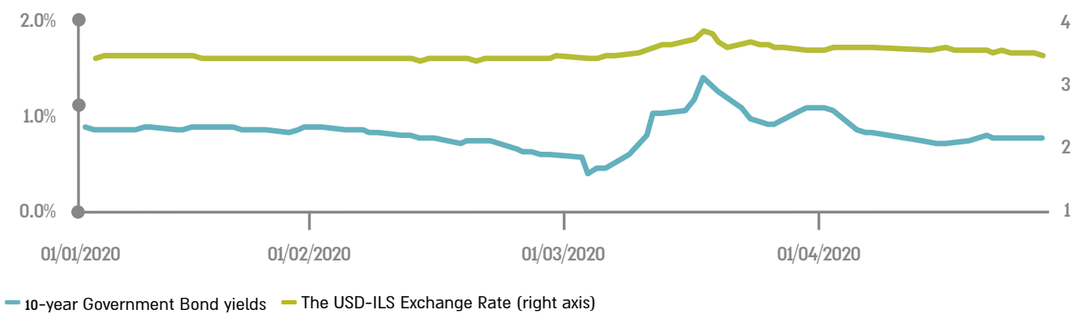
ECONOMIC IMPACT

Uncertainty caused by COVID-19's spread as well as reduced demand due to the subsequent closures, led to high volatility in commodity markets, especially oil. This dynamic led to a significant drop in the price of oil by exacerbating tensions and a trade war between Russia and Saudi Arabia. Concerns over the virus and oil prices increased the volatility of global stock markets as well. In March 2020, the world's leading stock exchanges declined sharply by over 30%. Government and corporate bond yields rose and the U.S. dollar strengthened as investors adjusted their portfolios in a "flight to quality".

International Comparison - Government Bonds Yield to Maturity

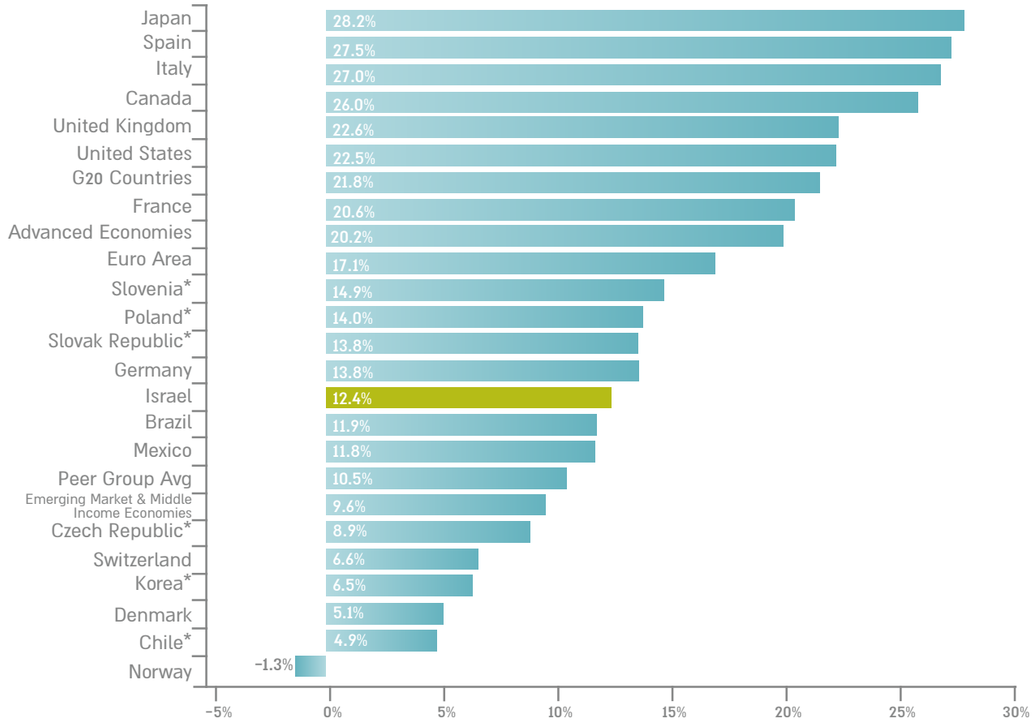


The USD-ILS Exchange Rate and 10-Year Government Bond Yields Trends



Widespread economic downturns and liquidity pressure in the markets pushed governments and central banks to implement unprecedented steps to provide support for the economy in general and to prevent the collapse of businesses. Many governments enacted a wide range of fiscal measures. These included: expanded unemployment benefits for workers, state-guaranteed loans for businesses, financial support for the health system and numerous other measures. These actions led to substantial increases in deficits and debt-to-GDP ratios on countries' balance sheets.

Change in the Ratio of Debt-to-GDP between the years 2019-2020



Source: Ministry of Finance and Bank of Israel, Other countries - Fiscal Monitor,October 2020

On the monetary side, central banks lowered interest rates and took steps to increase liquidity. Actions taken include, but weren't limited to: quantitative easing including purchasing government and corporate bonds, expanding credit and guarantees, and providing discounted financing to banks to provide credit for companies and businesses. These measures, along with social distancing and the accelerated pace of developing vaccines eventually led to improvement in financial conditions. As such, there has been a worldwide recovery in capital markets, to varying degrees.

COVID-19 IN ISRAEL

On February 27, 2020, the first COVID-19 case in the State of Israel was identified. As a result of the virus beginning to spread, the government took bold actions, imposing limits on public life, such as extensive social restrictions - including in-person education. By mid-March, the government had shuttered much of the economy.

At the beginning of April 2020, the morbidity rate had declined. Social restrictions were gradually lifted and the economy slowly reopened. By mid-June, morbidity rates had begun to rise once again. In September 2020, social restrictions were reinstated countrywide. Beginning in October 2020, the economy again steadily reopened. However, as before, morbidity rates rose and by the end of the year a third general closure was reestablished.

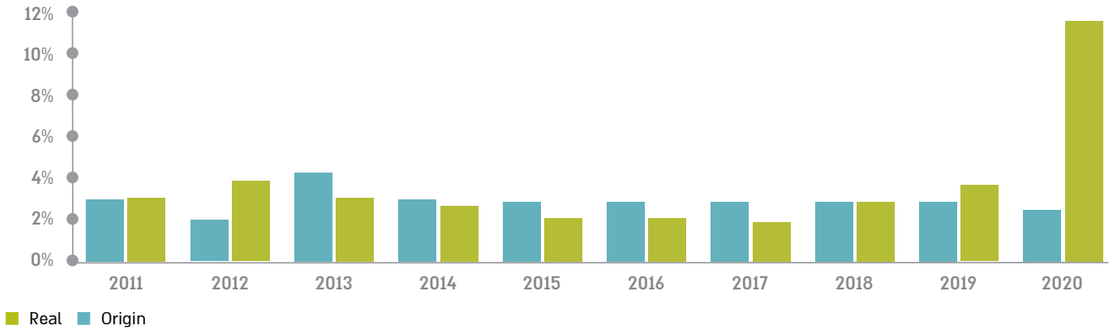
Restrictions severely affected economic activity in Israel. The unemployment rate rose, affecting the earning capacity of many households. As with many countries, uncertainty led to price declines in Israeli capital markets along with large mutual fund redemptions.

To reduce exposure, financial institutions adjusted their portfolio compositions by selling assets, such as government bonds, Makam (Central bank T-bills), and cash in order to purchase foreign currency to cover their obligations. These actions led to a rapid devaluation of the shekel and an increase in government bond yields. The specter of considerable economic damage moved the government to enact quick and extensive fiscal policy measures to provide support and reduce the damage to the economy. These fiscal steps were in concert with wide-ranging monetary measures taken by the Bank of Israel in order to preserve the economic stability and return markets to proper functioning.

Some of the fiscal policy measures taken include: expanded unemployment benefit payments until June 2021, grants for the self-employed and small businesses, provision of credit and state guarantees, deferral of tax payments, and stimulus grants for all citizens.

These actions led to a significant increase in government expenditure. At the same time, there was a reduction in state tax revenues. Combined, this led to an increase in the government budget deficit. In 2020, the deficit reached roughly NIS 160 billion by year-end. This equates to about 11.6% of GDP, compared with 3.7% in 2019.

The Development of the Deficit as a Percentage of GDP

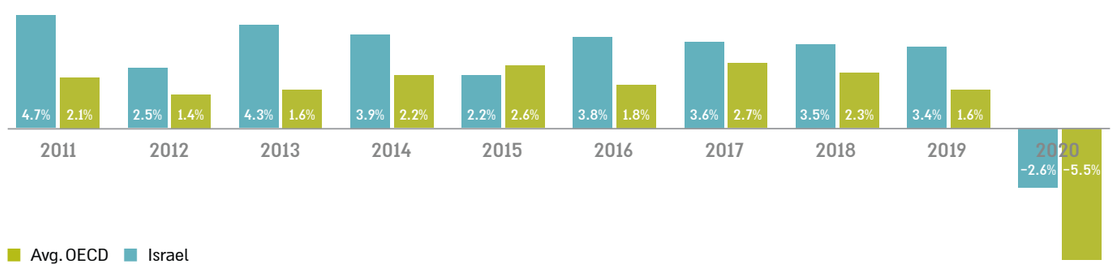


On the Monetary policy side, to address liquidity needs, maintain financial stability, and support rapid recovery from the crisis, the Bank of Israel implemented the following steps: it lowered the interest rate from 0.25% to 0.1%, launched a NIS 50 billion government bond purchase program in March 2020 (later expanding it by NIS 35 billion in October 2020), added roughly USD 15 billion of U.S. dollar liquidity through swaps and repos, lent to banks (including at negative interest rates) on condition they provide credit to micro- and small-businesses, corporate bond purchase program of NIS 15 billion, eased credit terms, deferred mortgage payments as well as other steps.

The actions taken by the Bank of Israel like other central banks around the world, especially the U.S. Federal Reserve's U.S. dollar provisions for liquidity, stabilized the markets and initiated its recovery. Mutual fund redemptions subsided, financial market pressures have since eased and government and corporate bond yields receded from their COVID-19 peaks.

The State of Israel entered the crises in a relatively good economic position. Prior to COVID-19, Israel had, among other metrics, a historically low unemployment rate, a high participation rate, and years of solid growth. This, in addition to government and Bank of Israel support during the crisis, only relatively moderate GDP decline of 2.6% in 2020.

GDP growth in Israel Compared to the OECD



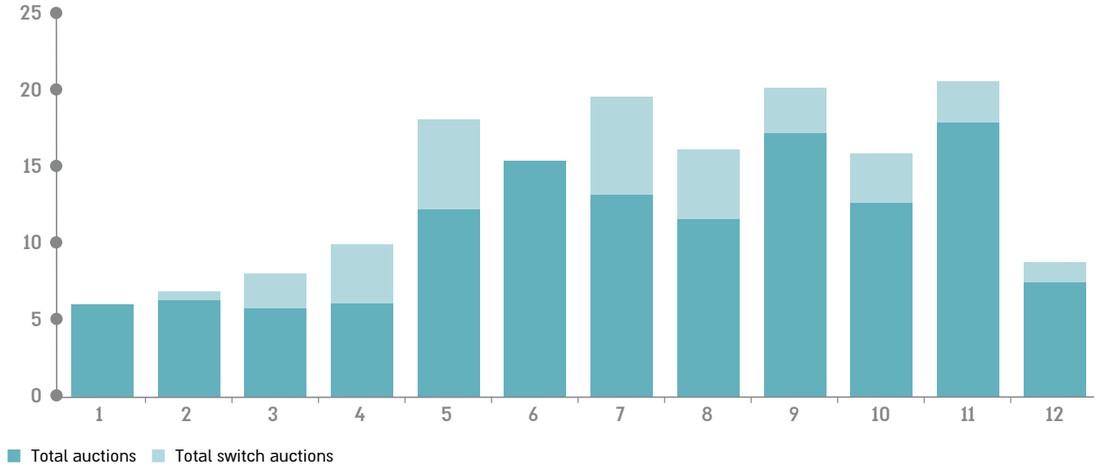
FINANCIAL NEEDS AND MAIN ISSUANCE CHANNELS

Fiscal policy, in response to the crisis, led to substantial government expenditures as well as a decline in state revenues. As a result, financing needs increased significantly, which led to a notable growth in the amount of debt raised in 2020, relative to prior years. This also led to an increase in the public debt-to-GDP ratio by about 12.4% to roughly 72.4% at the end of the year. This increase was not an unusual as compared to other countries around the world, and was even lower than the initial estimates. The relatively moderated level of increase in the Debt-to-GDP as compared to other countries was influenced by Israel's strong economy prior to the crisis, smaller GDP contraction relative to early forecasts, negative inflation, and a significant appreciation of the shekel.

Increased financing needs led to an increase in debt raised in the tradable domestic market, which is the primary source of funding for the deficit. To maintain market stability and due to the uncertainty that prevailed with the outbreak of the crisis, the amount raised in the tradable domestic market was increased at a measured, gradual pace, while continuously monitoring the needs of the market.

Issuance of government bonds continued across all channels, including the nominal and CPI-indexed curves, especially at short-to-medium term maturities. In addition, the issuances of Government T-bills (which have a maturity up to one year) increased and switch auctions were widely used.

Tradable Debt Funding

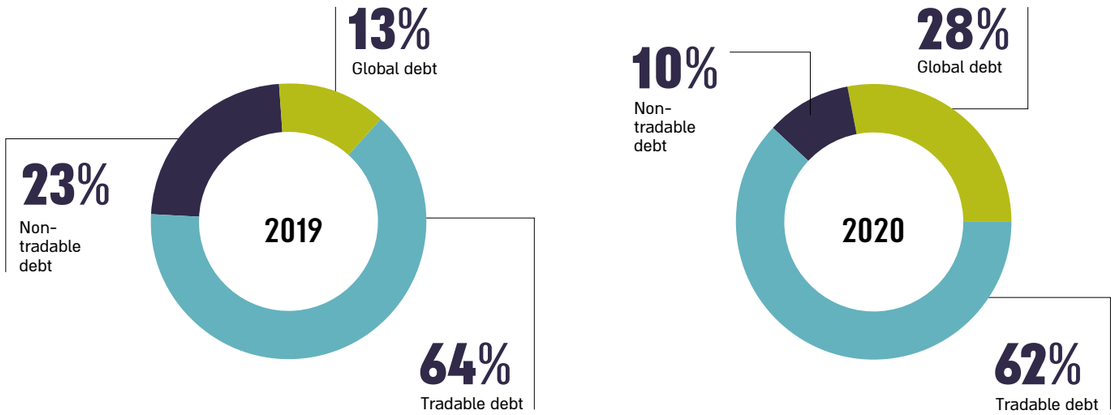


Issuances in the global market through public and private offerings were expanded in 2020. Due to the crisis two public issuances, which totaled USD 10 billion dollar, were completed. They included tranches for 10 and 30 years, and for the first time also 40 and 100 years. All issuances had historically high investor participation and demand from very high quality investors. In total, approximately NIS 74 billion was raised in the global markets during the year.

Designated bonds (bonds issued to pension funds) were one area that provided the Government Debt Management Unit with limited demands early in the crisis. Issuance of designated bonds come at the request of pension funds, is directly connected to the size of their portfolio (pension funds are required to comprise 30% of their portfolios with designated bonds), and is impacted by the yields of the funds and individual contributions. The fall in stock markets in the first quarter of 2020, due to the pandemic, created a situation where designated bonds issuances were close to zero between March and July 2020, leading to a decline in non-tradable domestic debt issuance as a percent of total issuance, relative to previous years.

In 2020, domestic market fundraising totaled approximately NIS 157 billion (excluding switch auctions), of which approximately NIS 131 billion was raised via tradable domestic debt.

Debt Funding by Segment in 2019-2020



The interest payment budget is expected to rise due to the high and rising designated bond interest payments, as well as the significant increase in the overall debt issued in 2020, and the expected increase in the deficit-financing needs in the coming years.

STRATEGY

03

Strategy

GOVERNMENT DEBT MANAGEMENT GOALS

The central role of the Government Debt Management Unit (GDMU) is to finance government activities, while addressing long term debt management objectives. These activities take into account the State, both as an issuer - which strives to balance the trade-off between cost and risk - and the State as a sovereign, with goals of supporting development of the government bond market.

The amount of issued debt directly affects the ratio of government debt-to-GDP, as well as the burden of debt in the state budget, due to interest payments on the debt. The borrowing plan is based on financing needs and expected redemptions in each year in accordance with the government's deficit target. The funding channels, range and mix of issuances are determined according to a strategic plan, with tactical considerations derived from rapid changes in the financial markets.

ISSUANCE AMOUNT

The GDMU plans its long-term borrowing, of tradable debt in domestic and foreign markets, by utilizing structure-debt simulations and models, such as the 'Stairs Model'. Principles of the model include:

a. **Gradual redemption profile** - creating a stable debt structure.
b. **Consistent issuance policy** - issuing for benchmark terms each year.
c. **Steady state** - maintaining a gradual redemption structure and adoption of a stable issuance policy.

In addition, the GDMU aims to smooth issuance amounts and maintain adequate liquidity during the year, through pre-planning of issuances, switch and buyback auctions and other short-term cash flow instruments while maintaining sufficient liquidity cushion throughout the year.

ISSUANCE STRATEGY

Issuance strategy is determined by a number of analyses. These include utilizing models, indicators, and simulations that minimize the debt burden given various levels of risk and qualitative considerations. These considerations include supporting and extending the government bond curve, increasing liquidity in government bonds, expanding the investor pool, and others. The issuance strategy is based on three main issuance channels:

- Tradable domestic borrowing
- Non-tradable domestic borrowing
- External issuance

1 TRADABLE DOMESTIC ISSUANCE

Tradable domestic borrowing is the state's prime funding channel and provides easy access to the financial markets, even at times of uncertainty and significant financing needs. Additionally, this channel serves a strategic sovereign importance as it builds a foundation for financial markets, corporate financial instruments, loans, mortgages, derivatives and more.

Main principles of issuance strategy in the tradable domestic market:

Nominal debt issuance

This is the dominant type of issuance in the local market due to current high exposure of the debt portfolio to the consumer price index (CPI). As of the end of 2020, the volume of CPI-linked debt was 48%. This is mostly due to non-tradable designated bonds. These types of bonds are issued by law, according to previous agreements. Despite a high exposure to the CPI index, the GDMU also issues tradable domestic bonds linked to the CPI index to diversify financing sources, provide benchmark points in the CPI-linked market, and to meet demand in the market.

Floating rate issuance

The GDMU issues floating rate bonds due to cost-risk analysis, diversification of the government's sources of financing, and increasing flexibility for debt management.

Government debt extension

In accordance with debt management policy for reducing refinancing risk and supported by a low interest rate environment, the GDMU extended the debt maturity to its highest level in ten years. Despite the extension of government debt, interest on tradable domestic debt has been steadily declining over the past decade. This is a result of market conditions, mainly the low-yield environment of government bonds.

The issuance strategy is implemented via weekly issuances as well as the following tools:

A SWITCH TENDERS

a switch tender assists in the strategic planning of government debt management and constitutes an integral part of the annual borrowing plan. Over the past three years switch tenders accounted for 21% of tradable domestic issuances. Goals of the switch tender include:

- **Reducing refinancing risk** - the debt unit executes switch auctions on purchased bonds with a short-term maturity (less than one year). These tenders enable the GDMU to smooth the redemptions curve over the year and reduce refinancing risk.
- **Cash management** - Switch tenders are carried out using the cash neutral method, in which the nominal value of the issued bond and the purchased bond is the same. This allows debt refinancing to be carried out without using funds. Switch tenders are also used as a tool for managing the government's cash flow, as they enable early redemptions and allow issuances to be spread out over the course of the fiscal year, as well as between years.

Switch tender policy:

- **Channel** - Switch tenders are an essential financing channel derived from the annual borrowing plan. Bonds are chosen according to the borrowing strategy (linkage, maturities, and series fill rate) and with tactical adjustments based on market conditions and demand.
- **The purchased bond** - in addition to the conventional execution of switch tenders, where bonds with short-term maturities (less than one year) are exchanged for bonds with longer maturities. The GDMU also utilizes switch tenders for issuing new bond series. Subject to market conditions, the new series issued are On-The-Run bonds, while Off-The-Run bonds are purchased.
- **Frequency** - the GDMU aims to carry out switch tenders on a consistent basis, subject to market conditions and other debt management considerations.
- **Issuances of Off-The-Run bonds** - the issued bonds are selected based on market demand, liquidity enhancement, support for small series, or correction of distortions in the secondary market.
- **Smoothing of issuance and redemptions** - the implementation of switch tenders for bonds maturing over the next calendar year (cross-year) allows for smoother issuances and redemptions over the years.

In 2021, the GDMU expects to execute switch auctions on bonds maturing throughout the year: Nominal Debt Bond 0421, Galil 5903, Floating Rate Bond 1121, Nominal Debt Bond 0122, which matures in 2022.

B BUYBACK TENDERS

Buyback tenders allow the State to purchase debt before it is redeemed against cash. These tenders are a customary tool in debt management policy and can strengthen debt portfolio structure and costs.

Buyback tender goals:

- Manage government cash flow effectively
- Reduce budgetary interest payments
- Reduce refinancing risk

Buyback tender policy:

- **Frequency** - the GDMU aims to perform buyback tenders on a consistent basis, subject to market conditions and other debt management considerations.
- **The purchased bond** - the maturity of the purchased bond will be up to one year.
- **Tender size** - tender size depends on government financing needs, cash balance, and prices offered at the time of the tender.
- **Issuance and redemption smoothing** - similar to switch tenders, buyback tenders for bonds that mature over the following calendar year (cross-year) allows for smoother payments of funds over the years.

C T-BILLS

The state will continue issuing short-term bonds in 2021, according to cash flow needs and demand. The issuance will be carried out according to the following model:

a. Between January to March for the series maturing in November
b. Between April to June for the series maturing in February
c. Between July to September for the series maturing in May.
d. Between October to December for the series maturing in August

As part of the GDMU's debt management policy, and in order to maintain short-term bond inventory, the series issued are expected to amount to NIS 6 billion, with a monthly issuance of around NIS 2 billion. The monthly issuance may change significantly depending on financial needs and changing conditions of the state's cash flow. The exact monthly issuance is published monthly in the GDMU's issuance plan.

BANK OF ISRAEL BOND PURCHASES IN THE SECONDARY MARKET (QE)[1]

In response to COVID-19 greatly increasing government spending and the deficit, and in line with common policy of many central banks, the Bank of Israel announced a plan to purchase a total of NIS 85 billion of Israeli government bonds in the secondary market (inclusive of an increase announced later in the year). By the end of 2020, the Bank of Israel purchased NIS 46.4 billion, approximately 55% of the original plan. It is expected that the Bank of Israel will continue purchasing both CPI-linked bonds and nominal bonds in similar quantities throughout 2021.

NEW SERIES IN THE DOMESTIC MARKET

In 2021, the GDMU expects to open the following series:

A 3-year fixed-rate series in place of ILGOV 0723, A 5-year fixed-rate series in place of ILGOV 0425, A 10-year fixed-rate series in place of ILGOV 0330, A 30-year fixed-rate series in place of ILGOV 0347, A 10-year CPI-linked series in place of ILCPI 0529.

The timing of exchanges will be decided based upon the size of the exchanged bond series, the issuance amount in the tradable domestic market, and the duration of the exchanged bonds.

MARKET

In 2020, six Israeli banks and seven global banks (13 total), acted as primary dealers in Israeli government bonds. The foremost purpose of a primary dealership is to develop an efficient and competitive government bond market.

Primary dealers must meet obligations in the primary market (participation and purchases) and in the secondary market (such as providing liquidity in the MTS, a designated marketplace for primary dealers). Additionally, primary dealers are entitled to exclusive benefits such as participation in the primary market, 'greenshoe' issuances, access to the government bonds lending facility, and participation, as a potential counterparty, in hedging transactions.

INCREASING LIQUIDITY

The liquidity and tradability of government bonds have a significant influence on the government's funding costs. Because of this, there is great importance in increasing liquidity in the secondary market.

In late 2006, a reform was made by the Accountant General to create the primary dealership program and tasked primary dealers with the responsibility of purchasing, supporting, promoting, and distributing government bonds. In addition to the primary dealership reform, funding strategy and debt management responsibilities were assigned to the GDMU.

In order to increase liquidity and tradability of government bonds, the GDMU utilizes switch auctions for new bond series. This is to replace off-the-run bonds with new benchmark on-the-run bonds.

Since May 2020, Israeli government bonds have been included on the World Government Bond Index, WGBI, which is calculated by the index firm FTSE Russell[2] . As a result, since the second quarter of 2020, the amount of Israeli government bonds owned by foreign investors has increased.

GLOBAL BOND INDEXES

In September 2019, the Index firm FTSE Russell announced its intent to add Israel to two international bond indexes, beginning in 2020:

1. The World Government Bond Index (WGBI), a global nominal government bond index.
2. The World Inflation-Linked Securities Index (World ILSI) This is a CPI-linked index.

As a result of volatility and uncertainty in the markets due to the Covid crisis, the addition of the Israeli government bonds was delayed from April to May 2020. As of January 2021, Israel's weight is 0.38% in the WGBI index and 1.7% of the World ILSI index.

Israel's addition to the index led to an increase in foreign participation in the local government bond market.

2 NON-TRADABLE DOMESTIC ISSUANCE

According to law, issues of non-tradable bonds must be carried out in the form of designated bonds. The volume of designated bond issuances can be volatile depending on pension portfolio returns and needs in a given month. As a result, it is challenging to exactly estimate the volume of near-term issuance in the non-tradable channel. Any level above or below the forecast comes at the expense of debt issuance in the tradable domestic market. Further details on the implications of designated bonds can be found in the section on non-tradable domestic debt.

3 GLOBAL DEBT

In addition to being a significant financing source, as detailed in the global debt chapter, the GDMU views the issuance of debt in the global capital markets as an important tool for exposing the Israeli economy to foreign investors and expanding the investor pool. In accordance with debt management strategy, an annual issuance is planned in the global capital markets for the purpose of maintaining a government yield curve, in both U.S. dollar and euro currencies. Global issuance size and timing are subject to capital market conditions and the government's annual financing needs. In 2020, because of increased financing needs due to the COVID-19 crisis, the global debt market played a key role in providing a large amount of capital. This led to the government's overall debt portfolio to increase its exposure to the U.S. dollar and euro.

As part of the strategy to reduce exchange rate exposure in the debt portfolio, the GDMU executes long-term hedging transactions through cross-currency swaps as well as short-term cash flow hedging through forwards and FX-swaps. Further details on borrowing policy can be found in the global debt chapter.

[1]Quantitative Easing (QE) is a form of monetary policy used by central banks as a method of increasing the domestic money supply by purchasing financial assets.

[2]FTSE Russell is a subsidiary of London Stock Exchange Group, which provides a range of indexes.

04 PRIMARY MARKET

Issuances

As a result of the coronavirus outbreak and its implications on the economy, tactical adjustments were made to increase issuances and provide the necessary support for the economy and high financing needs. These adjustments were made according to fundraising policy for 2020, according to GDMU strategy.

As in previous years, the majority of funding was financed by the domestic tradable market. The total domestic tradable debt raised in 2020 was approximately NIS 165 billion, compared to roughly NIS 87 billion in 2019.

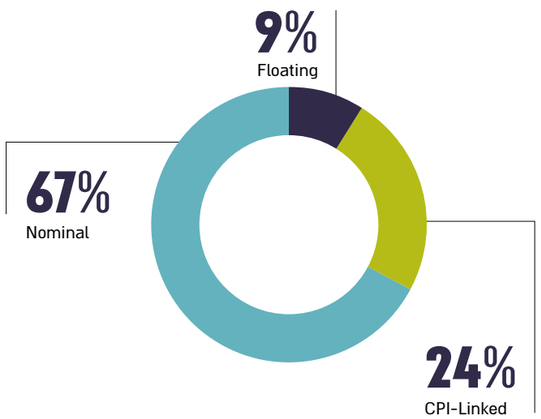
In 2020, net funding in the local tradable market was nearly NIS 102 billion. In 2019, net funding amounted to almost NIS 18 billion. Funding and its deployment during the year is adjusted according to the monthly deficit as well as changes in government cash flow.

TRADABLE DOMESTIC DEBT

Funding in the domestic tradable market is comprised of nominal fixed-coupon bonds, inflation-indexed bonds, and floating rate bonds.

Nominal fixed-coupon bonds encompassed the largest share of domestic funding with approximately 67% of total issuances (of which 54% were fixed-coupon bonds and 13% were T-bills). This comprises the largest share due to the debt management policy of creating a liquid nominal curve while diversifying away from CPI-linked issuances.

Tradable Debt Funding by Segment in 2020



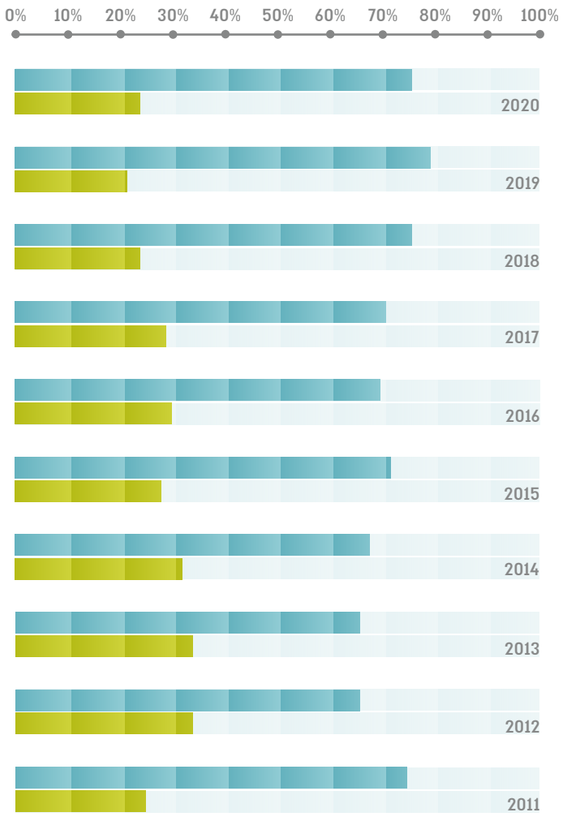
NIS 102 BILLION

Net funding in the local tradable market was nearly NIS 102 billion

CPI-linked bonds comprise roughly 24% of the total. A large share of CPI-linked bonds stem from the issuance of designated bonds, which are all CPI-linked. Lastly, floating rate bonds comprise the remaining domestic issuances, with approximately 9% of the total.

The balance of domestic tradable debt was roughly NIS 551 billion in 2020, compared to approximately NIS 459 billion in 2019.

Breakdown of Tradable Debt Types in 2011-2020



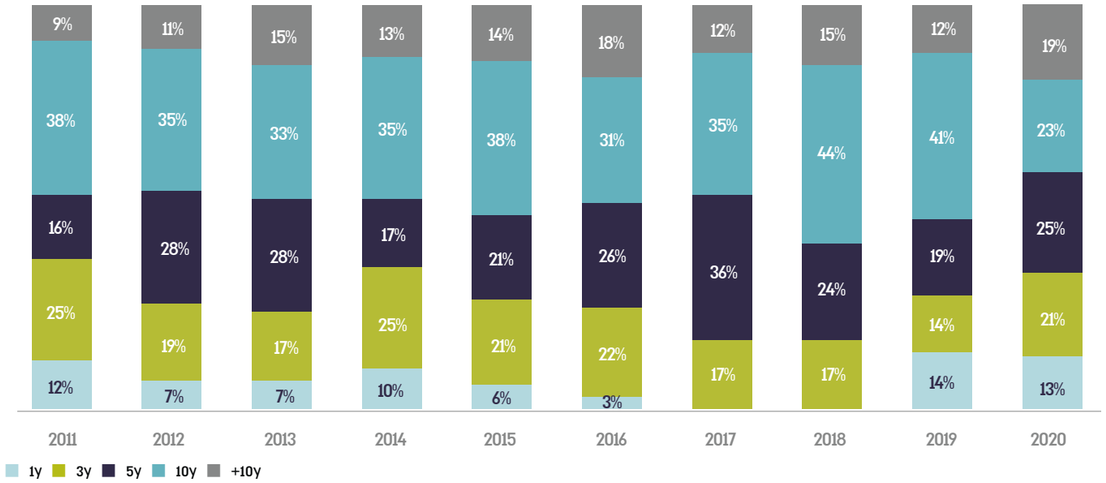
* Floating rate bonds and T-bills are included in the nominal bonds column

FUNDING IN THE TRADABLE DOMESTIC MARKET

Domestic debt is issued with benchmark maturities of 3,5,10 and 30 years. In light of the coronavirus's outbreak on financing needs, the GDMU opened, for the first time a new series with a maturity of 20 years. Issuances for this maturity are in accordance with the government's financing needs.

The following graph illustrates the distribution of funding by term-to-maturity.

Distribution of Funding by Term to Maturity in 2011-2020



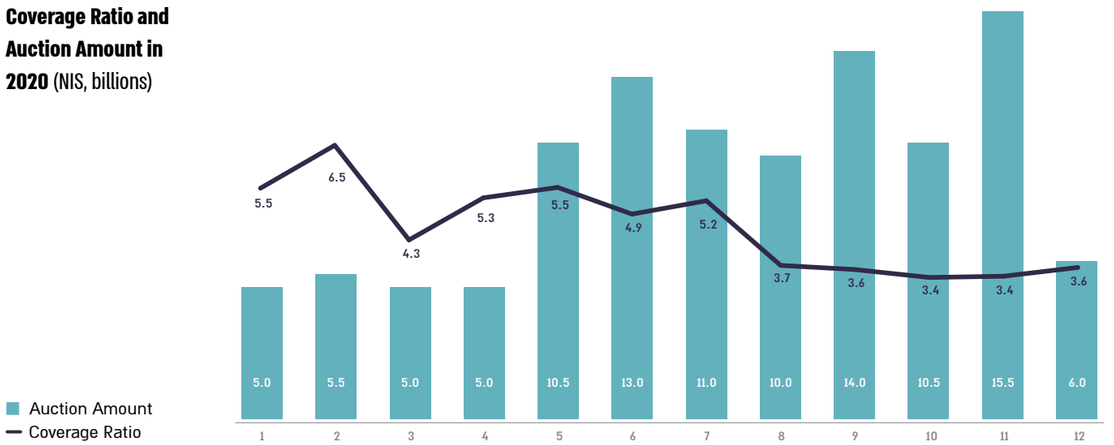
COVERAGE RATIO

The coverage ratio is calculated by dividing a requested amount of bonds (demand) by an offered amount of bonds (supply). This ratio reflects market demand and can be an indicator for various trends in the local economy.
Factors influencing coverage ratios:

- Domestic and global market conditions
- Seasonality
- Funding types and sizes

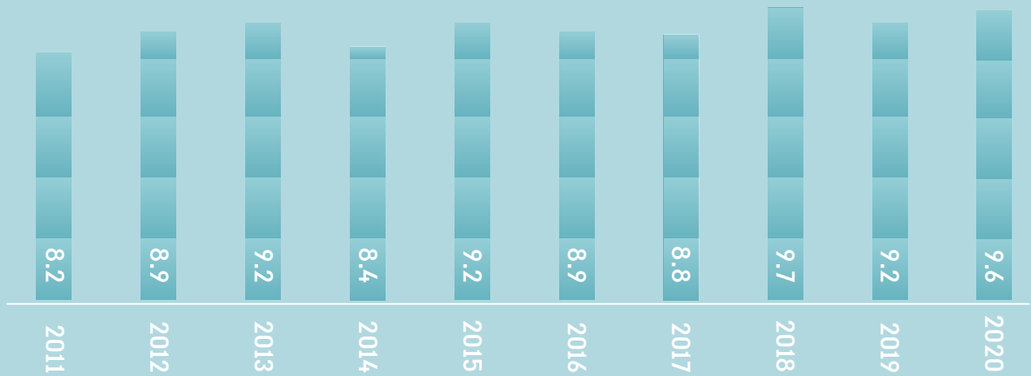
The following graph examines the coverage ratio (monthly average) relative to the amount offered. The average coverage ratio in 2020 was about 4.4, compared to approximately 5.1 in 2019.

Coverage Ratio and Auction Amount in 2020 (NIS, billions)



ATM

The following graph illustrates the average term-to-maturity (ATM) of funding. The average term-to-maturity remained high, as has been the case in recent years, at approximately 9.6 years (roughly 8.5 years inclusive of T-bills).



SWITCH AUCTIONS

At the end of 2007, the GDMU began using switch auctions to perform early redemptions of tradable government bonds with shorter-dated maturities (less than a year) and replace them with different bonds with longer-dated maturities.

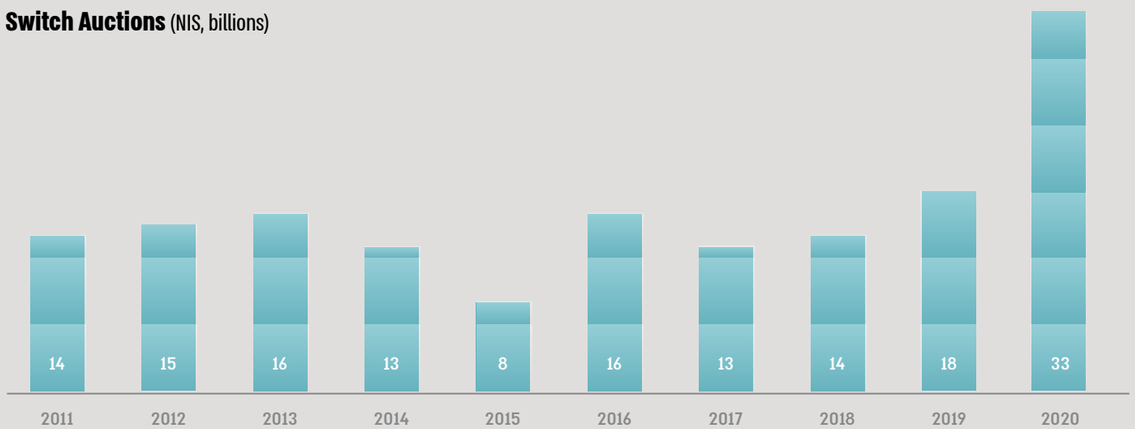
Switch auctions enable funding to be spread out over the course of a year, allow more efficient management of the government's cash flow, and help replace bonds with lower liquidity with newer benchmark on-the-run bonds. Switch auctions also reduce rollover risk, budgetary interest payments, and increase ATM. Additionally, it improves flexibility when managing the government's debt and enables the GDMU to implement tactical adjustments in response to rapid changes in financial markets.

In 2020, there was approximately NIS 33 billion in total funding raised by switch auctions, compared to roughly NIS 18 billion in 2019.

The graph below illustrates switch auction sizes over the past decade.

In 2020, there was approximately NIS 33 billion in total funding raised by switch auctions

Switch Auctions (NIS, billions)



BUYBACK AUCTIONS

More than a decade ago, the GDMU began utilizing buyback auctions to redeem bonds prior to their maturity by purchasing them off the market.

Buyback auctions differ from switch auctions because no new bonds are switched for the redeemed bonds. They are simply redeemed early.

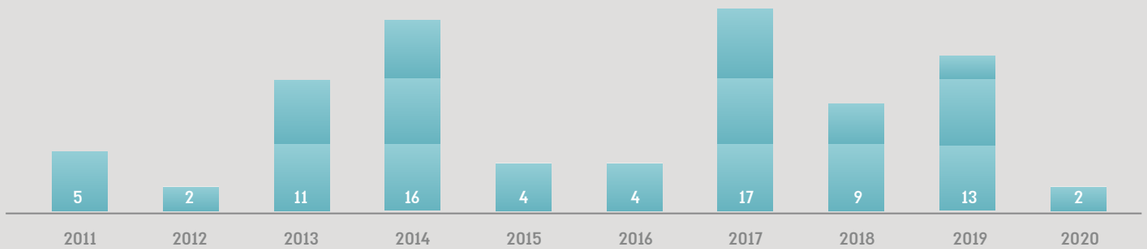
Main Objectives of Buyback Auctions:

- Managing the government's cash flow more efficiently
- Reducing refinancing risk
- Reducing budgetary interest payments

In 2020, there was approximately NIS 2 billion in total buyback purchases, compared to approximately NIS 13 billion in 2019.

The graph below illustrates buyback auction sizes over the past decade.

Buybacks (NIS, cost in billions)



Non-Tradable Domestic Debt

In 2020, the total amount of non-tradable domestic debt was roughly NIS 26 billion. This was raised using the following instruments:

Designated bonds for pension funds ("Arad") - These bonds have a fixed interest and CPI-linked rate. Arad's yields are higher than corresponding bonds in the tradable market and constitute a subsidy to pension funds. In 2020, the volume of issuances for these bonds was approximately NIS 21.5 billion, a decrease of nearly 13% from 2019 (approximately NIS 24.7 billion). In 2020, the net amount raised with Arad bonds was roughly NIS 18.1 billion.

Designated bonds for insurance companies ("Hetz") From 1965 to 1990, non-tradable bonds called "Hetz" (life-linked) were issued for insurance companies and featured a guaranteed yield. They had a fixed interest rate linked to an index between 4% and 6.2%. In the early 1990's, new entrants were excluded from receiving these bonds. Despite this, legacy insurance companies remain eligible. In 2020, the volume of Hetz bond issuances was roughly NIS 3.9 billion, a decrease of nearly 40% from 2019 (approximately NIS 6.4 billion). This resulted in roughly NIS 280 million in net capital raised.

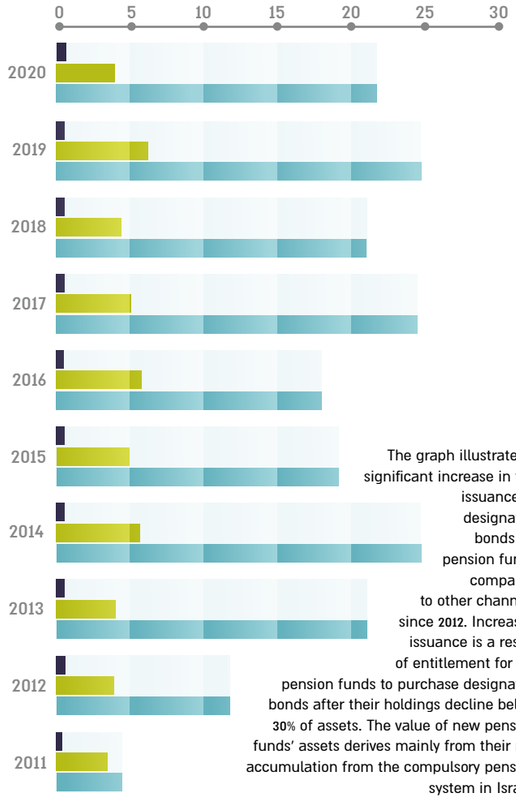
Various deposits ("Emissions") - In 2020, nearly NIS 579 million was raised in this instrument, resulting in a negative net raise of approximately NIS 63 million.

As part of the pension fund reform in 2003, and in light of the actuarial deficits in some of the old pension funds, it was decided to lower the maximum investment rate of designated bonds to 30% of the estimated value of the fund's assets.
Additionally, it was agreed that in the future, all pension funds will purchase "Arad" bonds, yielding an effective coupon of 4.86% per annum, rather than "Meron" bonds which yield an effective coupon of 5.58% per annum.
The restriction of 30% led to zero issuance of "Arad" bonds in 2004 and a low volume of issuances from 2005-2008.

Funding Segment	Principal Funding	Principal Redemptions	Net Funding
Arad and Meron	21,507	3,456	18,051
Hetz	3,909	3,629	280
Others	579	641	(63)
Total	**25,995**	**7,727**	**18,268**

*NIS millions, 2020

Domestic Funding by Non-Tradable Debt in 2011-2020 (NIS, billions)



The graph illustrates a significant increase in the issuance of designated bonds for pension funds compared to other channels since 2012. Increased issuance is a result of entitlement for old pension funds to purchase designated bonds after their holdings decline below 30% of assets. The value of new pension funds' assets derives mainly from their net accumulation from the compulsory pension system in Israel.

IMPLICATIONS OF THE COVID-19 PANDEMIC:

The outbreak of coronavirus during the first quarter of 2020 caused negative implications for the capital markets and led to a sharp decline in Israeli and global stock indices. Issuance of designated bonds has a direct link with the size of pension funds' asset portfolio, which is affected by the funds yield and net accumulation. Due to the pandemic effect on the markets, between March-July 2020, there was nearly zero designated bond issuances. Rising financing needs led to increased issuances in both the tradable domestic market as well as the global markets. However, in 2020, unlike previous years, there was a decrease in non-tradable funding as a percentage of total funding and a decrease in non-tradable stock as a percentage of total stock, for the first time since 2012.

LONG-TERM IMPLICATIONS OF ISSUING DESIGNATED BONDS:

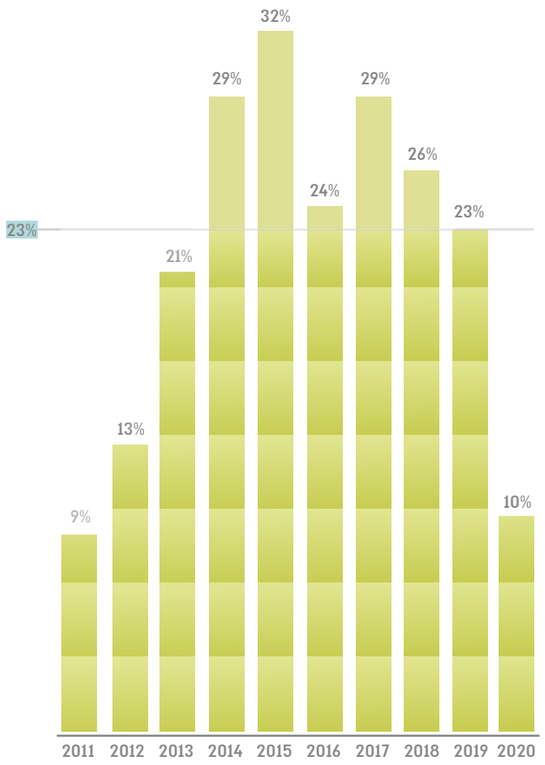
1 **An increase in the stock of CPI-linked debt**
CPI-linked debt comprised nearly 48% of total debt stock in 2020. The rise in CPI-linked stock is mostly due to the increase in net issuances of designated bonds, all of which are CPI-linked. Issuances of designated bonds come at the expense of issuances in the tradable market.

2 **A decrease in tradable debt issuance**
The increase in non-tradable debt led to an erosion in tradable debt issuance. This has an overall negative effect on the volume of tradable government bond issuances in the primary market (mainly in the long end of the curve), as well as the level of liquidity and tradability in the secondary market.

With the assumption of a steady deficit of 3%, the level of 'tolerance' (percentage of non-tradable funding out of total funding without a reduction in tradable and external financing) is 23%. With certain adjustments, it can reach 25%[1].

The chart at right denotes the rate of non-tradable domestic debt issuance out of total funding between 2011-2020. As illustrated in the chart, since 2014 the average issue rate was above the tolerance threshold. The singular exception is in 2020, in light of the effects of the pandemic as described above.

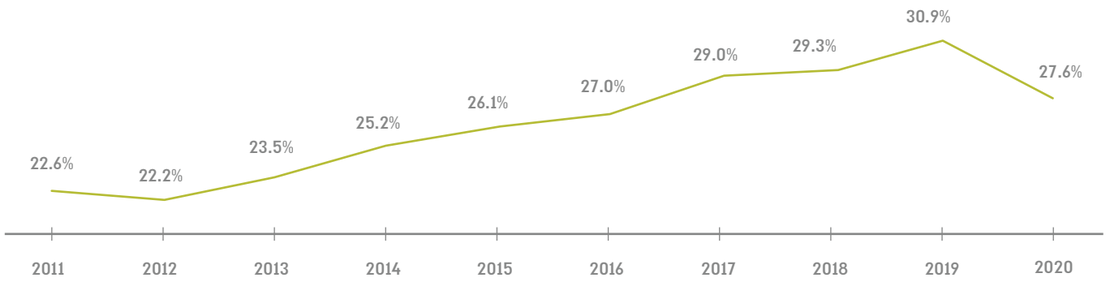
Non Tradable Funding as a percentage of Total Funding in 2011-2020



[1]Source: Increasing Certainty in Pension Savings Report (2015) "Babad Committee"

At the end of 2020, the stock of non-tradable domestic debt increased by approximately 6.6% to roughly NIS 271.9 billion. This constitutes approximately 27.6% of total debt. The stock of designated bonds issued to pension funds ("Arad" and "Meron") grew by nearly 9% in 2020 and totaled roughly NIS 210 billion, compared to nearly NIS 192.7 billion in 2019. Despite the increase, 2020 was the first year since 2012 that non-tradable stock as a percentage of total stock fell year-over-year.

Non Tradable Stock as a percentage of Total Stock in 2011-2020



3 **Increase in interest expenses due to subsidies for designated bonds -**

The long-term trend of decreasing interest expenses in tradable debt and increasing expenses in not-tradable debt continued in 2020. This is due to the high positive net funding in non-tradable debt and lower rates in the tradable market.

The subsidy for designated bonds at the end of 2020 was approximately NIS 9.4 billion. This is an increase of roughly 15% from nearly NIS 8.2 billion at the end of 2019.

9.4

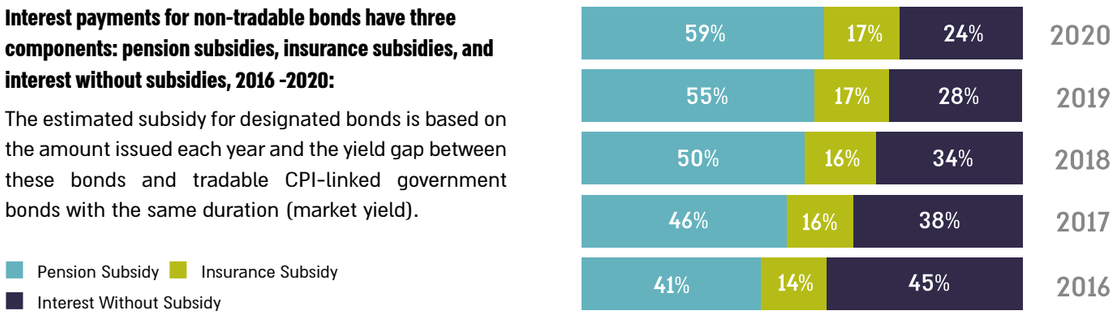
The subsidy for designated bonds at the end of 2020 was approximately NIS 9.4 billion

The Annual Budget Estimate Subsidy for Designated Bonds in 2016-2020 (NIS, millions)

Year	Pension Subsidy	Insurance Subsidy	Total	Percentage of Total Interest Payments for Designated Bonds
2020	**7,375**	**2,057**	**9,431**	**79%**
2019	6,259	1,927	8,186	74%
2018	5,416	1,765	7,181	69%
2017	4,652	1,558	6,210	65%
2016	3,829	1,368	5,197	57%

Interest payments for non-tradable bonds have three components: pension subsidies, insurance subsidies, and interest without subsidies, 2016 -2020:

The estimated subsidy for designated bonds is based on the amount issued each year and the yield gap between these bonds and tradable CPI-linked government bonds with the same duration (market yield).



4 Designated bonds reduce debt management flexibility. The amount of designated bonds issued for pension funds consist of three main components:

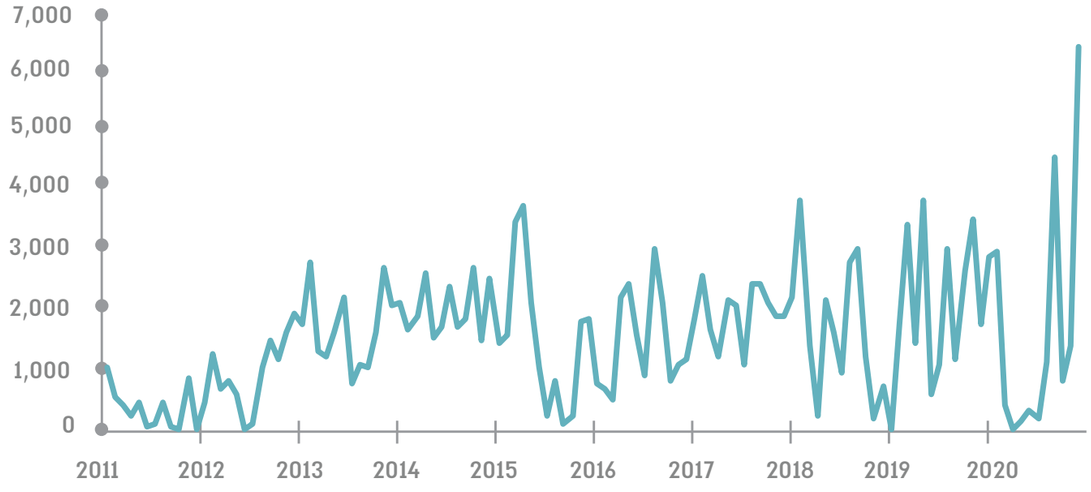
- The funds' net accumulation
- The funds' yield during the examined period
- Redemption of designated bonds

Designated bonds have a higher sensitivity to an increase in yield versus an increase in accumulation:

Factor	Issuance Increase (NIS, millions)
Increase of NIS 1 billion net accumulation	300
Yield increase of 1%	1,950

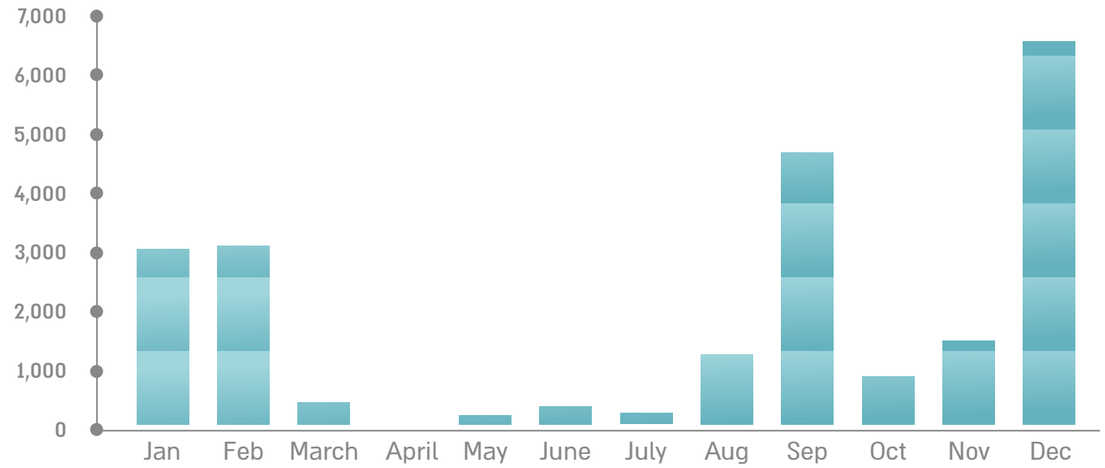
The combination of sensitivity to yield and high volatility for designated bonds makes it difficult to predict the amount of funding needed. This limits the flexibility of debt and cash management. In addition, monthly issuances have high volatility, as illustrated in the graph below. Since 2011, the average monthly issuance has been approximately NIS 1,575 million with a standard deviation of nearly NIS 1,113 million.

Monthly Fund Raising in Designated Bonds in 2011-2020 (NIS, millions)



The pro-cyclical nature of monthly volume of non-tradable issuance, which is directly linked to the size of the pension funds' asset portfolio, can be problematic, as highlighted in 2020. In the first two months of 2020, the average issuance of designated bonds for pension funds was roughly NIS 2.9 billion. However, the outbreak of the COVID-19 pandemic led to a decline in the markets indices and therefore the 30% asset threshold was more than met by the funds. This resulted in nearly zero issuances of designated bonds between March and July 2020, a time when government funding needs rose. As illustrated in the graph below, high volatility can be seen between September and December 2020. As an example, between the months of November and December there was a difference of nearly NIS 5 billion in funding. In a short period of time, the GDMU was required to balance this funding with other sources.

Non Tradable Funding in 2020 (NIS, millions)



Global Debt

SOVEREIGN ISSUANCES

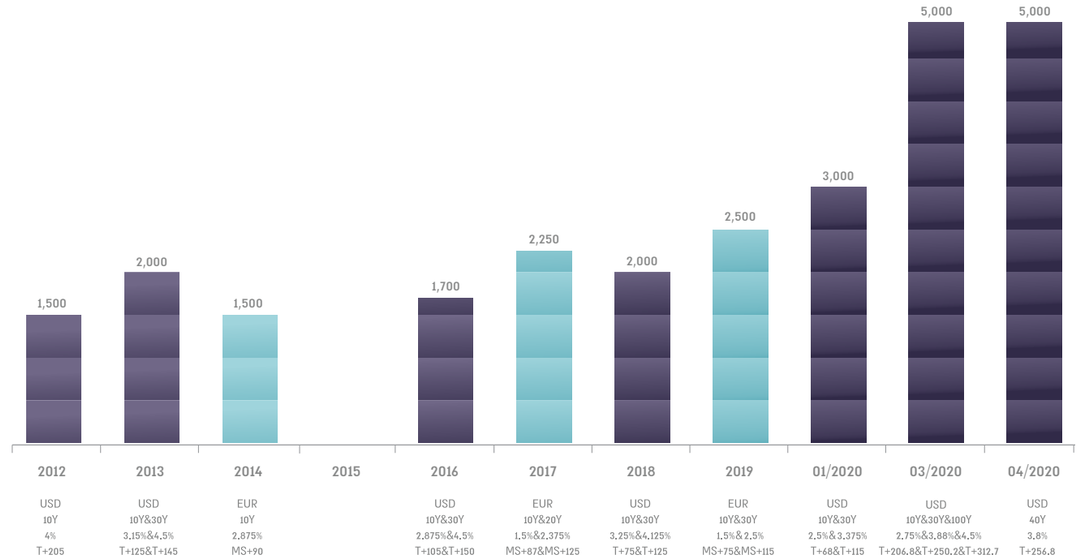
At the end of 2020 the total external debt, is NIS 160.8 billion. Of this, the stock of sovereign bonds denominated in foreign currency totaled approximately NIS 117 billion. At the end of 2019 it was approximately NIS 62 billion. The sharp increase was due to the special funding needs caused by the COVID-19 crisis.

Foreign currency debt issuances in international markets serve a number of strategic goals:

- Maintaining an additional source of funding to finance the government deficit.
- Expanding the State of Israel's investor base.
- Creating U.S. dollar and euro benchmarks that allows accessibility of foreign investors to government bonds and assist Israeli businesses in pricing and rising funds abroad.

Historical Sovereign Issuances (USD/EUR millions)

From 1995-2020, 23 sovereign issuances were executed by the State of Israel in the global capital markets, including in the United States, Europe, Taiwan, and Japan. In recent years, issuance size has increased. This is due to both the policy of issuing in benchmark-sizes as well as high global demand for State of Israel bonds.



Private Placements

Due to increased funding needs caused by the COVID-19 pandemic, 14 private placements were executed in 2020 (13 denominated in Euros and one denominated in Yen), amounting to approximately EUR 5.6 billion. In comparison, in 2019 two private placements were executed. Private placement funding costs in 2020 were at record lows. Three of the issuances, totaling EUR 2.05 billion, were issued with a yield of 0%, for a term of two years. All private placements were carried out under the State of Israel's EMTN shelf programme.

Sovereign Issuance

JANUARY 2020

In January 2020, a dual-tranche issuance in U.S. dollars was executed in the global market. The tranches consisted of a 10-year series amounting to USD 1 billion, with a yield of 2.550% and a spread of 68 basis points above the benchmark U.S. Treasury rate, and a 30-year series amounting to USD 2 billion, with a yield of 3.509 % and a spread of 115 basis points above the benchmark U.S. Treasury rate. This issuance was characterized by having the lowest funding cost for the State of Israel in U.S. dollars. The issuance was well-received with over 400 investors from 40 countries participating, and approximately USD 20 billion of demand.

Sovereign Issuance

MARCH-APRIL 2020

Due to increased funding needs stemming from the economic effects of COVID-19, at the end of March 2020 a three-tranche, U.S. dollar denominated issuance was executed. The issue was comprised of: a 10-year series amounting to USD 2 billion, at a yield of 2.75% and a spread of 206.8 basis points above the benchmark U.S. Treasury rate; a 30-year series amounting to USD 2 billion, at a yield of 3.875% and a spread of 250.2 basis points above the benchmark U.S. Treasury rate; and for the first time for an Israeli government issuance, a 100-year series amounting to USD 1 billion, at a yield of 4.5% and a spread of 312.7 basis points above the benchmark U.S. Treasury rate. This issuance was characterized by having the highest investor demand for a State of Israel issuance, with over 350 high quality investors from 30 countries participating, and approximately USD 25 billion of demand.

In April 2020, a public issuance was executed in the Asian markets for the first time via a "Formosa" issuance. This type of issuance means that the bonds were dual-listed on the Taiwan Stock Exchange in addition to the London Stock Exchange. These types of bonds are advantageous for Taiwanese investors since they are considered domestic bonds, although denominated in foreign currencies. The issue consisted of a 40-year series amounting to USD 5 billion, at a yield of 3.8%. This issuance was characterized by having very high investor demand, with over 300 high quality investors from 30 countries in the order book.

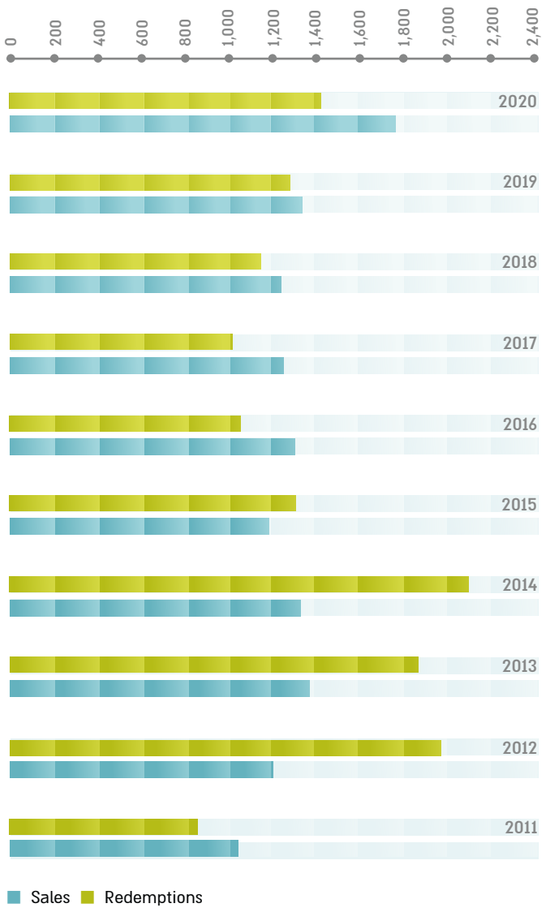
ISRAEL BONDS ORGANIZATION

The Development Corporation for Israel (State of Israel Bonds or Israel Bonds organization), established in the 1950s, is a platform for raising non-tradable debt in foreign currency and maintaining a connection to the Jewish diaspora. Over the years, the Israel Bonds organization has displayed a counter-cyclical nature; in years of recession or geopolitical shock, the amount of debt raised by the organization increases. The Israel Bonds organization raises funds in order to assist with the government's financing needs. Its primary goal is to expand the base of investors and diversify government funding sources, mostly through retail customers, but also through institutions.

In 2020, the organization raised approximately USD 1.8 billion, the most in its history. At the end of 2020, the stock of bonds sold through the Development Corporation for Israel, in shekel terms, totaled approximately NIS 18 billion.

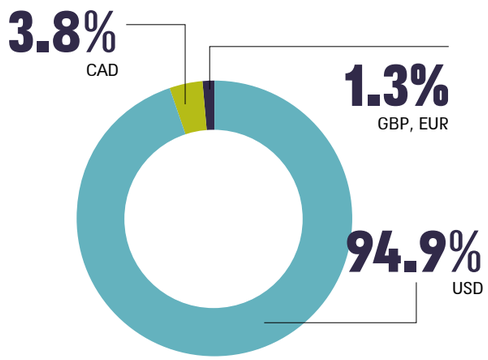
Israel Bonds Organization, Sales and Redemptions in 2011-2020

(NIS, millions)

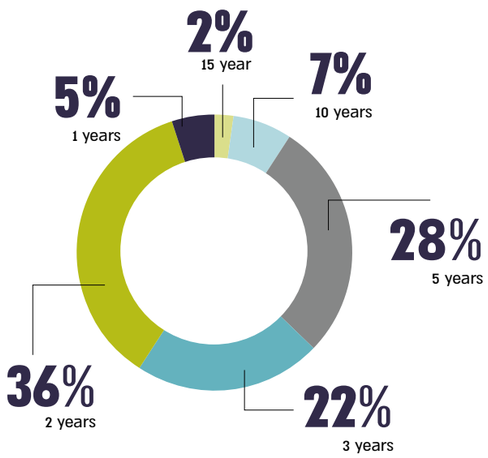


BONDS DEBT IN 2020

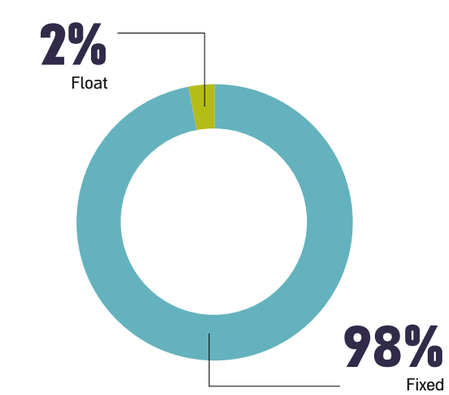
By Currency



By Time to Maturity



By Interest Rate



ISSUANCES GUARANTEED BY THE U.S. GOVERNMENT

At the end of 2020, the stock of bonds guaranteed by the U.S. government totaled approximately NIS 24 billion. In April 2003, the U.S. Congress approved a three-year program to provide guarantees to newly-issued Israeli government debt abroad at a par value of USD 9 billion. As a guarantor of the debt, bonds issued under this program have a credit rating comparable to the United States. Thus, the yield at which the bonds were sold was only slightly higher than the yield on U.S. government bonds at the time. The U.S. guarantee framework supports the State of Israel's ability to raise money in international markets, even during times of emergency.

The program has been extended by the U.S. government over the years, most recently in 2019, to continue through 2023.

Under the guarantee program, in 2003 and 2004 (years with major deficits in the state budget) the State of Israel issued bonds with a par value of USD 4.1 billion. The Israeli government has not utilized the guarantees program since November 2004. As of the end of 2020, the balance under the program totals USD 3.8 billion.

The U.S. guarantees program serves as a financial "safety net" for the Israeli government. At this time, there is no intention to utilize it, unless in extraordinary financial need.

LOANS FROM FOREIGN GOVERNMENTS AND OTHER LENDERS

Additional balance of non-tradable debt is comprised of loans from foreign governments, international institutions, foreign banks, and bi-national funds. At the end of 2020, stock of non-tradable debt totaled approximately NIS 1.6 billion, constituting roughly 1% of total foreign currency debt.

THE STATE OF ISRAEL'S CREDIT RATING

	Moody's	S&P	Fitch
Rating	A1	AA-	A+
Outlook	Stable	Stable	Stable

In 2020, all three credit rating agencies affirmed Israel's credit rating. In January, May, and November 2020, S&P Global Ratings affirmed Israel's AA- credit rating and "stable" outlook. In April 2020 and January 2021, Fitch Ratings affirmed Israel's A+ credit rating and "stable" outlook. In April 2020, Moody's Investors Service affirmed Israel's A1 credit rating and updated its outlook from "positive" to "stable".

Credit Rating Agencies Review Israel

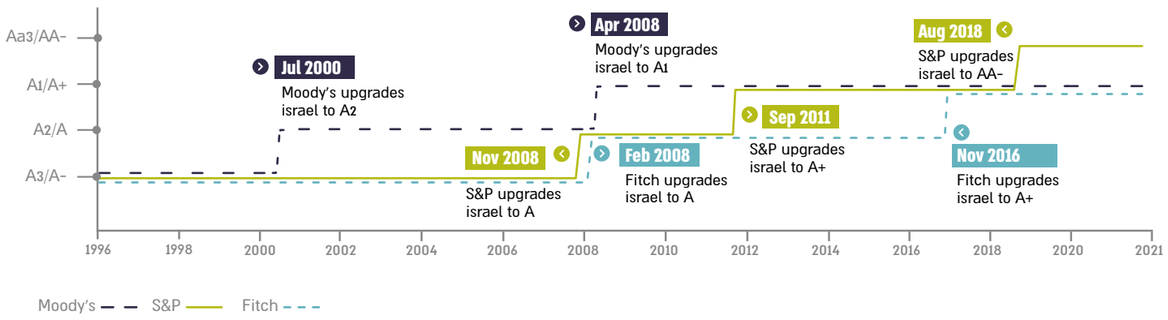
Strengths

- The ratings are supported by Israel's prosperous and diversified economy, well-developed institutions strong external balance sheet and financing flexibility.
- Historically strong and steady economic growth, expected to remain so once Israel emerges from the pandemic.
- Israel economy proved resilient in the face of recurring restrictions. The technology sector retains a key role for the Israeli economy and has expanded strongly in recent years.
- Israel has excellent access to capital markets both domestically and internationally. This has supported the government's efforts to diversify its funding base and lengthen the average debt maturity to over nine years. Domestic debt markets are deep and liquid and provided the majority of funding needs during the crisis.
- Strong export performance and the development of Israel's offshore natural gas fields, with significant export capacity, will support the country's current account position, with external surpluses projected to stay around 3% of GDP in the medium term.
- The Abraham Accords signed with UAE and Bahrain are expected to lead to cooperation between the countries and moderately contribute to stability in the region.

Weaknesses

- Relatively high general government debt/ GDP and high defense spending limit fiscal flexibility.
- Political instability resulted in a growing structural deficit, from 0.5% of GDP in 2015 to approximately 4% in 2019, as well as to a lack of budget and new elections, that might also fail to lead to a formation of a government that will consider fiscal consolidation a priority.
- Geopolitical risks due to ongoing instability in Syria, escalating tensions with Iran and intermittent conflicts with militant groups operating in the region.
- Weaker educational and income outcomes among some communities could weigh on Israel's growth in the long run.
- Israel's weakening fiscal policy effectiveness, driven in part by a more polarized political environment.

State of Israel - Credit Ratings



SECONDARY MARKET

05

Due to the effects of the coronavirus pandemic, 2020 was characterized by high volatility in the financial markets. The year began with gains across leading indices, including the TA-35 index, which rose to its highest point in February. Since March, however, the spread of the pandemic prompted business closures, manufacturing and trading shutdowns, resulting in stock markets falling sharply around the world. Likewise, the global economy was characterized by rising unemployment rates and a sharp drop in GDP.

In response to the economic crisis, central banks implemented quantitative easing (QE)[1] programs and lowered interest rates. Governments also took significant measures for economic stimulus, which increased deficits and debts. These measures, along with accelerated vaccine development, supported market recovery.

The Federal Reserve (FED)[2] lowered its rate twice in March 2020, from a range of 1.50%-1.75% to 0%-0.25%. The FED also initiated a purchase program of government bonds and, for the first time, corporate bonds as well. The European Central Bank (ECB) kept its rate near zero, while the rate on deposits remained -0.5%. The ECB also launched a EUR 1.85 trillion asset purchase program of private and public sector securities.

The Bank of Israel (BOI) lowered its interest rate from 0.25% to 0.1%, returning it to a historic low. BOI implemented a total of NIS 85 billion government bond purchase program and, for the first time, a corporate bonds purchase program in the amount of NIS 15 billion. In 2020, inflation fell to -0.7% on an annual basis from 0.6% growth in 2019.

The global economy contracted by 4.2% in 2020 after expanding 2.9% in 2019. The U.S. economy is expected to have declined -3.7% in 2020. German GDP fell by 2.7% in 2020, following 0.6% growth in 2019. China recorded 1.8% growth in 2020, while positive, the expansion was the lowest in decades.

Global markets were characterized by high volatility. The S&P 500 and the Dow Jones indices both fell by more than 30% in February and March, but recovered by yearend, rising 16% and 7%, respectively. The German DAX index rose 4% in 2020, after decreasing 39% with the onset of the global crisis earlier in the year. The Japanese Nikkei rose 16% in 2020.

The U.S. 10-year Treasury yield fell in March to below 1%, for the first time in history. By August 2020, the yield stood at 0.51%, and by the end of the year it settled at 0.92%. For comparison, the yield was 1.92% at the end of 2019. The German 10-year Bund yield has been negative since May 2019, and ended 2020 at -0.57%. For comparison, at the end of 2019 it was -0.19%. The Italian 10-year government bond yield rose to 2.43% in March 2020, compared with 1.1% at the end of February. Since May 2020, the yield declined, reaching a historic low of 0.52% in December.

The Israeli economy contracted by 2.6% in 2020, less than earlier estimates and lower than the world's average economic contraction. Due to a drop in revenues and greater expenditures, Israel ended 2020 with a budget deficit of 11.6%, compared with 3.7% in 2019.

The yield of 10-year nominal Israeli government bonds fell to a historically low level of 0.43% on March 4 2020. By March 22, it increased to 1.41%. From April to the end of the year it traded below 1% and ended the year at 0.77%. At the end of 2019, the rate was 0.96%. The yield on 10-year CPI-linked bonds decreased from -0.53% to -0.74% by the end of the 2020.

The TA-35 index rose to its highest level in February 2020. As a result of the pandemic, this was followed by 33% drop. The Bank of Israel's quantitative easing program, together with government relief and accelerated development of vaccines, supported market recovery. The index rebounded somewhat to end the year with a decline of 11%. TA-125 index ended 2020 -3%, after rising 21% in 2019.

PRIMARY DEALERSHIP IN GOVERNMENT BONDS

Market Making reform began in 2006 with several objectives:

- developing an efficient and competitive government bond market
- introduction of international investors
- increase of demand for government bonds
- reduction of financing costs

Primary dealers are required to comply with primary market and secondary market obligations. When in compliance with these requirements primary dealers are entitled to benefits, such as:

- Exclusive issuance auctions
- Noncompetitive auctions ("green-shoe")
- Access to the government bond lending facility
- Eligibility to participate as counterparties in government hedging transactions

In 2020, there were 13 primary dealers in government bonds, seven of which were international banks.

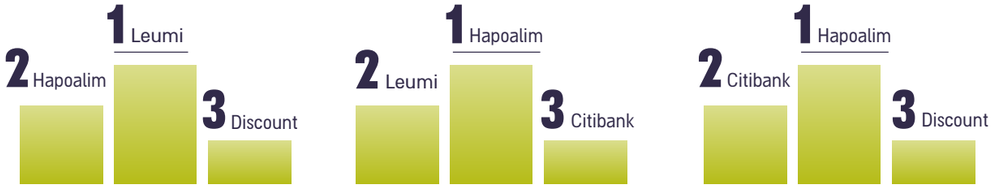
[1]Quantitative Easing (QE) is a form of monetary policy used by central banks as a method of increasing the domestic money supply by purchasing financial assets.
[2]The Federal Reserve (FED) is the central banking system of the U.S.

PRIMARY MARKET RANKING

Primary market ranking is based on the volume of purchases in government bond auctions during the year.

SECONDARY MARKET RANKING

Secondary market ranking is based on trading and quoting activity on the MTS (an exclusive trading platform for Primary Dealers in government bonds), in each asset class (Nominal and CPI-linked). Secondary market rankings are calculated weekly, monthly, quarterly, and annually. The Green-shoe allocations for Primary Dealers are determined based on weekly rankings.



	Yearly Primary Market Ranking	Yearly Secondary Market Ranking - Nominal	Yearly Secondary Market Ranking - CPI-linked
01	Bank Leumi	Bank Hapoalim	Bank Hapoalim
02	Bank Hapoalim	Bank Leumi	Citibank
03	Discount Bank	Citibank	Discount Bank
04	Goldman Sachs	Mizrahi Bank	Bank Leumi
05	Barclays Capital	Discount Bank	Mizrahi Bank
06	Mizrahi Bank	Barclays Capital	Goldman Sachs
07	Citibank	Goldman Sachs	Barclays Capital
08	Merrill Lynch	JP Morgan	JP Morgan
09	Union Bank	Union Bank	Union Bank
10	Deutsche Bank	Deutsche Bank	Deutsche Bank
11	JP Morgan	FIBI	FIBI
12	BNP Paribas	Merrill Lynch	Merrill Lynch
13	FIBI	BNP Paribas	BNP Paribas

*NIS 1 of T-Bill is calculated as NIS 0.50.

TRADING VOLUMES IN GOVERNMENT BONDS

Trading in government bonds take place in several arenas: The Tel Aviv Stock Exchange (TASE), MTS (exclusive for Primary Dealers in Israeli government bonds), as well as over-the-counter (OTC).

In 2020, government bonds were characterized by strong trading volumes in the secondary market, especially on TASE. Trading volumes were influenced by several factors in 2020: increased issuances in the domestic market, the Bank of Israel's quantitative easing program, as well as the inclusion of Israeli government bonds to the World Government Bond Index (WGBI) in May 2020.

Daily average trading volume in government bonds on TASE was approximately NIS 2.5 billion - the highest level since 2015. In 2019 it was NIS 2.2 billion. Total trading on TASE amounted to NIS 623 billion in 2020. In 2019 it was NIS 534 billion. Volumes on MTS decreased from roughly NIS 47 billion in 2019 to NIS 39 billion in 2020, while OTC trading totaled NIS 139 billion in 2020.

TASE
77.74% of trade (2019 - 77.57%)

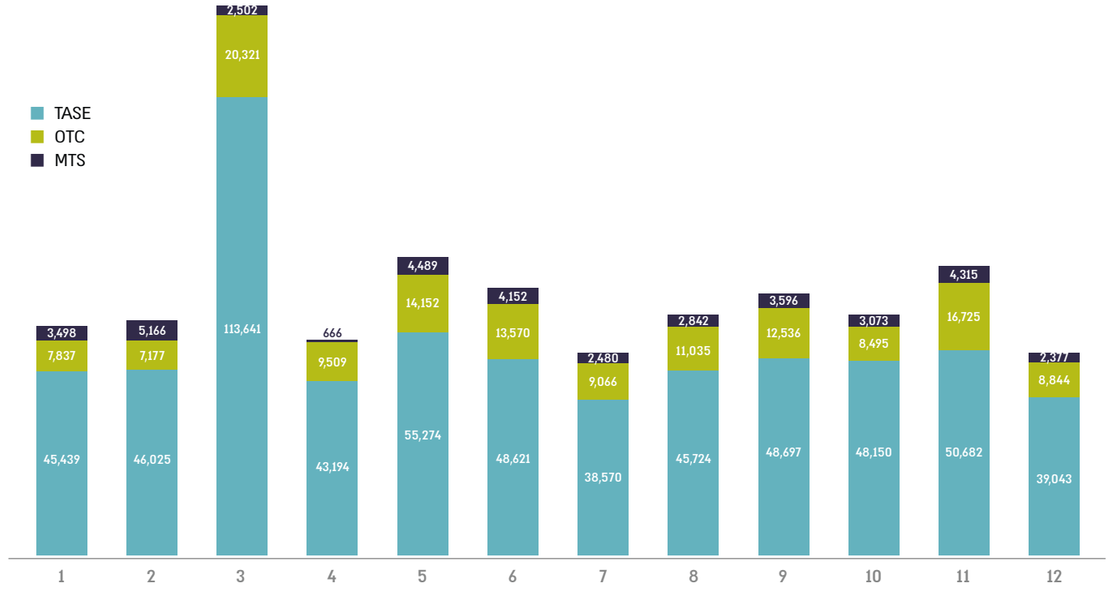
MTS
4.88% of trade (2019 - 6.86%)

OTC
17.38% of trade (2019 - 15.57%)

Total trading volumes of government bonds in 2020 reached a daily average of approximately NIS 3.3 billion. In comparison, in 2019 the daily average was NIS 2.9 billion

*Trading on the MTS platform takes place Monday-Thursday.

Trading Volumes of Government Bonds in 2020 (NIS, millions)



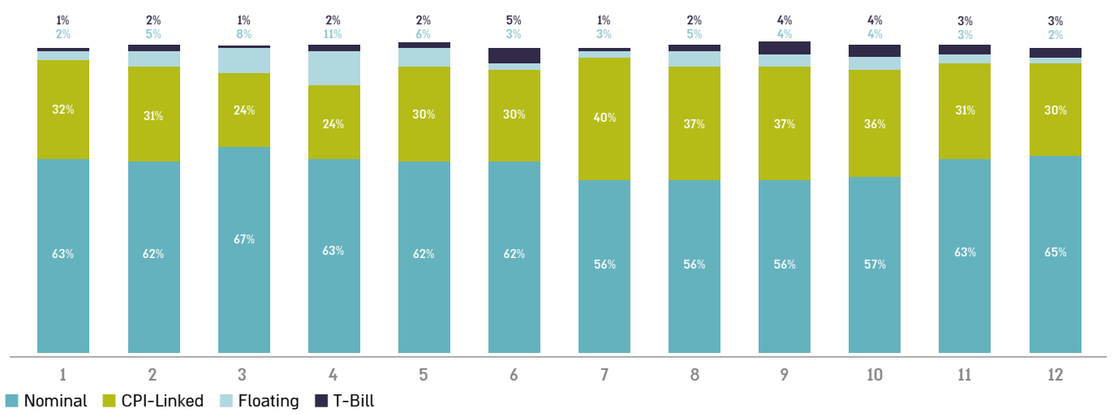
BREAKDOWN OF TRADING BY SEGMENTS

As with previous years, government bond trading in 2020 was concentrated in the nominal fixed-coupon segment.

Ratio between different segments in 2020, % of trade:

Nominal fixed-coupon: 61.59% of trade (2019 - 65.42%). CPI-linked: 31.14% of trade (2019 - 30.38%). Floating rate: 4.97% of trade. T-Bills: 2.30% of trade.

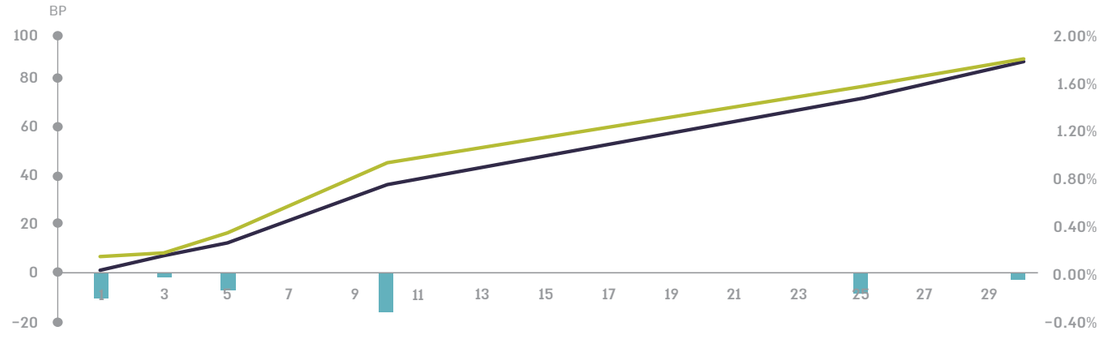
Breakdown of Trading Turnover in Different Segments in 2020



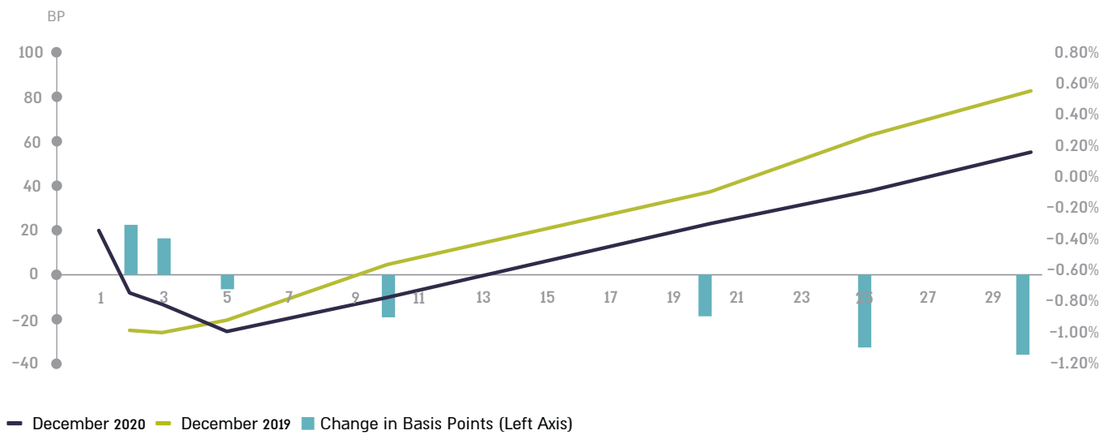
YIELD CURVE

CPI-linked and nominal fixed-coupon yield curves at the end of 2020 and spreads from 2019 yields.

Nominal Curve



CPI Curve



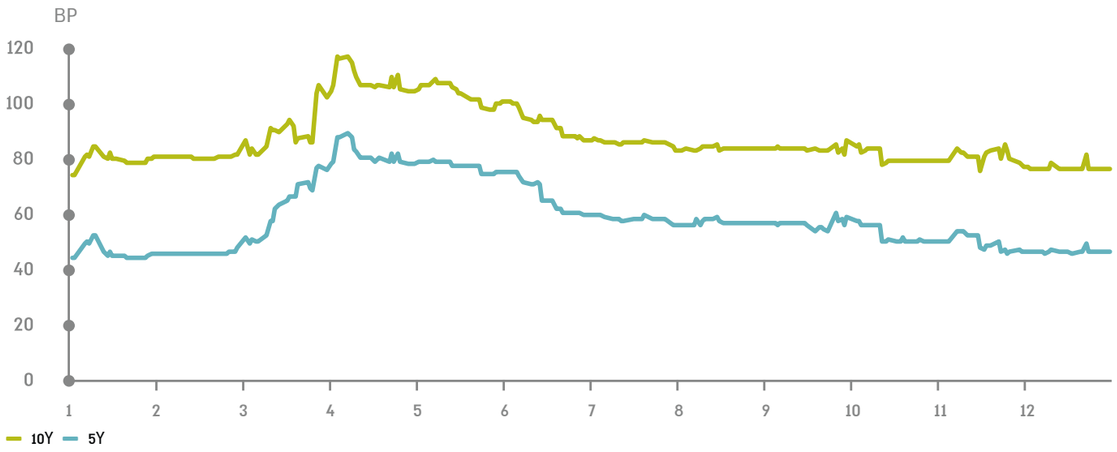
DEVELOPMENT OF THE CDS SPREADS

Credit Default Swap (CDS) transactions are agreements that enable two parties to transfer a third party's credit risk between them. In practice, such transactions represent the sale of bankruptcy insurance.

CDS spreads are generally regarded as an indication of an investor's confidence in a third party's redemption ability, which serves as the underlying asset for the transaction.

The graph below shows CDS spreads for the state of Israel in 2020:

CDS



BOND LENDING FACILITY

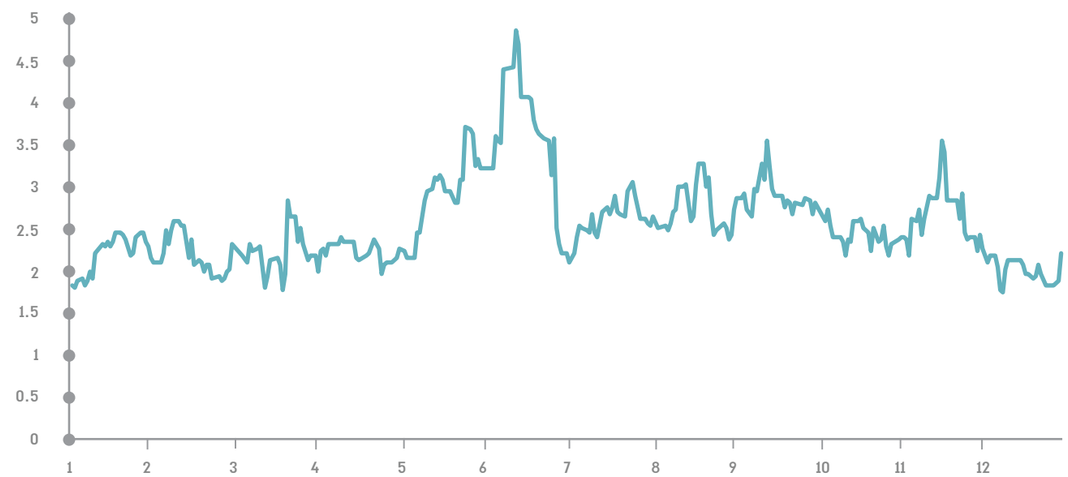
The bond lending facility began operating in September 2006 as part of the Primary Dealership reform.

The Accountant General, along with the TASE Clearing House, established a bond lending facility that allows Primary Dealers to borrow government bonds.

Each Primary Dealer is entitled to borrow up to NIS 1.5 billion. Following Israel's inclusion in WGBI index, the Government Debt Management Unit granted each Primary Dealer an additional NIS 1 billion to its borrowing limit, for a limited period of three months.

In 2020, borrowing totaled between NIS 1.5 billion and 4.7 billion in market value, which was similar to 2019 totals.

BORROWING (NIS, Billions)

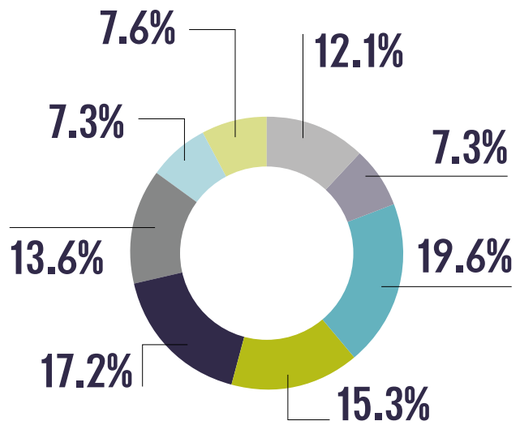


BREAKDOWN OF HOLDINGS IN TRADABLE GOVERNMENT BONDS

Significant Changes:

- The weight of pension and provident fund holdings was approximately 34.9% in 2020, compared with 40% at the end of 2019.
- The weight of foreign investors' holdings in government bonds increased to 7.3% in 2020, from 5.5% in 2019.
- The Bank of Israel's share of holdings in domestic tradable government bonds increased significantly, for the first time since 2009, to a level of 7.6%, compared with 0.4% last year.

Government Bonds Holdings in 2020



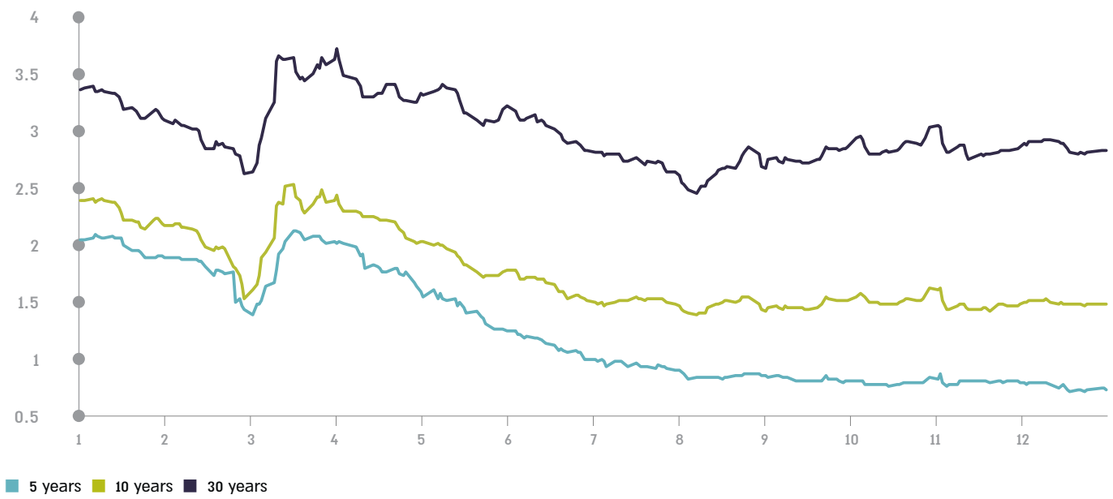
Year	Total Listed Capital (NIS billions)	Public	Mutual funds	Provident and education funds	Pension funds	Banks	Insurance companies	Foreign investors	Bank of Israel
2020	630.9	12.1	7.3	19.6	15.3	17.2	13.6	7.3	7.6
2019	532.8	14.9	10.4	22.3	17.8	12.2	16.6	5.5	0.4
2018	483.9	15.0	10.8	21.9	16.4	11.8	16.5	6.7	0.9
2017	491.9	14.9	10.5	22.1	17.1	12.6	15.9	5.6	1.3
2016	498.7	15.2	11.4	20.7	16.1	16.0	13.7	5.2	1.7
2015	502.7	17.1	13.5	20.0	14.9	14.0	13.0	5.5	2.0
2014	496.2	18.5	13.6	20.1	15.4	11.9	12.6	5.5	2.4
2013	480.7	19.9	11.8	20.3	15.9	13.0	12.3	3.7	3.1
2012	459.5	21.7	9.6	19.8	15.5	12.8	11.2	5.6	3.7
2011	408.8	22.3	8.5	19.3	14.9	14.1	9.8	6.3	4.8
2010	388.7	24.2	13.2	18.8	13.3	12.8	9.7	3.0	5.1
2009	367.5	26.4	13.0	17.9	12.3	12.9	9.3	2.7	5.5

Source: Bank of Israel, 2020, breakdown of tradable government bond holdings (as of 18.2.2021)

BENCHMARK

The following graph denotes yields of Israeli bonds, denominated in foreign currency, maturing in 5, 10, and 30 years. These yields form a benchmark curve illustrating the Israeli economy's risk in U.S. dollars and euros. This benchmark curve helps Israeli companies find efficient pricing when looking to issue debt abroad.

Yields of Sovereign Bonds in Foreign Currency in 2020



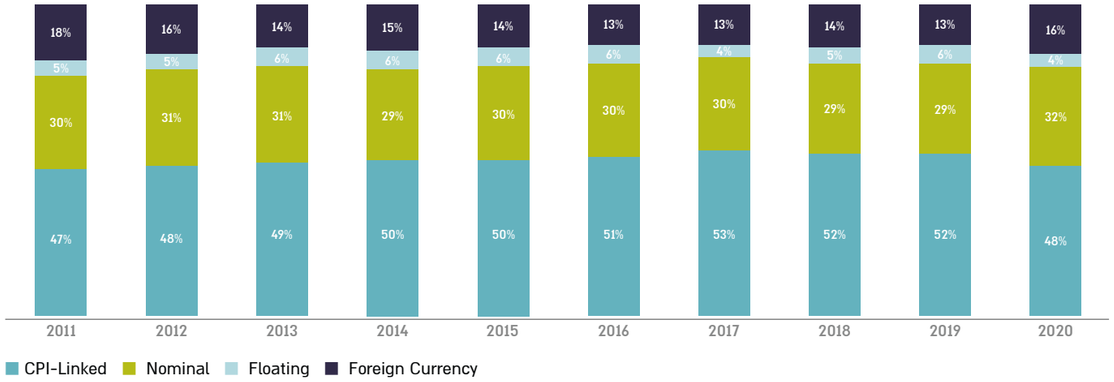
06 DEBT PORTFOLIO

DEBT PORTFOLIO

In 2020, government debt increased approximately 20% to NIS 983.9 billion, from NIS 823.2 billion in 2019. The primary reason for the rise was a net funding of NIS 182 billion, due to an increase in expenses as a response to Covid-19. Market factors, on the other hand, partially offset the increase. These included: appreciation of the shekel against the U.S. dollar, which affected foreign debt, and a negative inflation rate, which affected CPI-linked debt.

As illustrated in the chart below, over the past decade, the portion of external debt, relative to total debt, has been decreasing. In recent years, external debt has accounted for 12.5% of the total debt. Due to the increase in government expenses in 2020, external debt rose to approximately 16% of total debt. This year, CPI-linked debt decreased to 48% of total debt. This was due to an increase in issuance abroad and the local non-CPI-linked market, a decrease in the issuance in the non-tradable domestic market, and a negative inflation rate.

Structure of the Government Debt in 2011-2020



DEBT-to-GDP RATIO

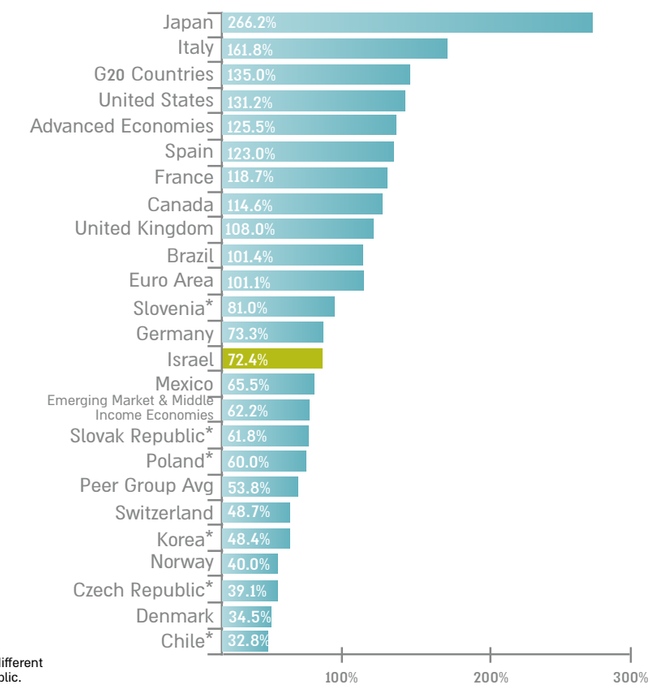
The debt-to-GDP ratio is a key indicator for determining the state's credit rating and financial stability.

Over the past decade, Israel has substantially reduced its debt-to-GDP ratio relative to other advanced countries[1]. The long-standing trend of reducing debt-to-GDP is a direct result of prudent fiscal policy. However, the debt-to-GDP ratio, including municipalities, rose by approximately 12.4% from 2019 to 72.4% in 2020.

From 2010 to 2019, the debt-to-GDP ratio fell by approximately 11%. In 2019, public debt-to-GDP reached 60% with central government debt-to-GDP reaching a low of 58.5%. The rise in 2020 is largely a result of increased government spending to fight Covid-19. Despite the sharp upsurge in the ratio, the increase was less than anticipated. This is mostly due to a stronger-than-expected GDP growth rate, appreciation of the shekel against the U.S. dollar, and a negative inflation rate.

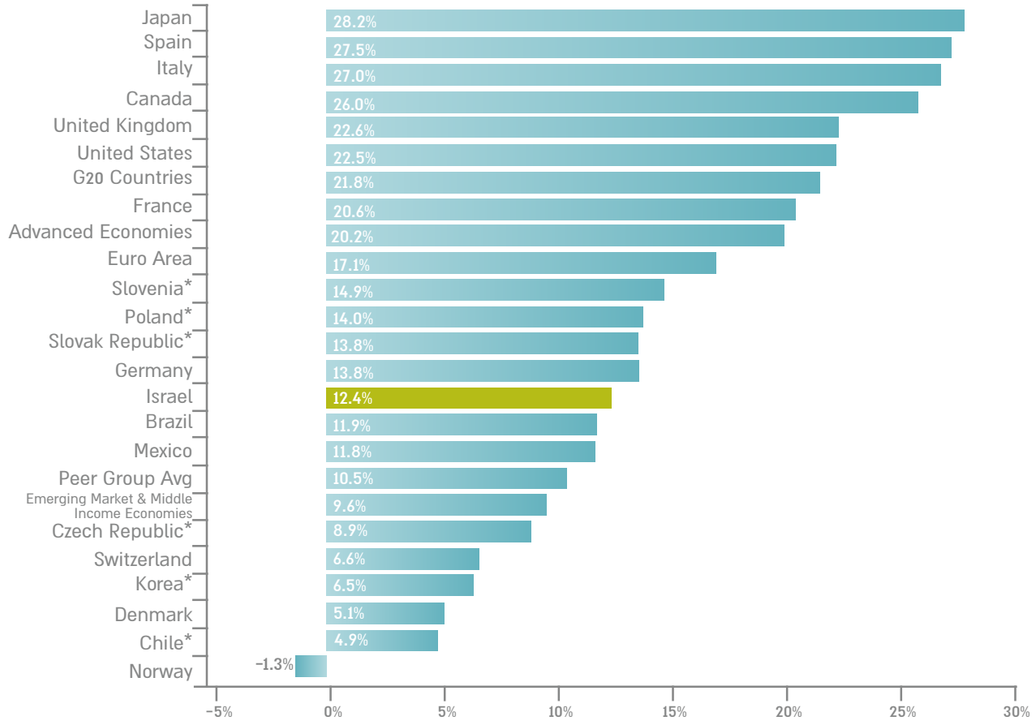
[1]Source: Ministry of Finance and Bank of Israel, Other Countries Fiscal Monitor, October 2020.

Ratio of Public Debt-To-GDP in 2020

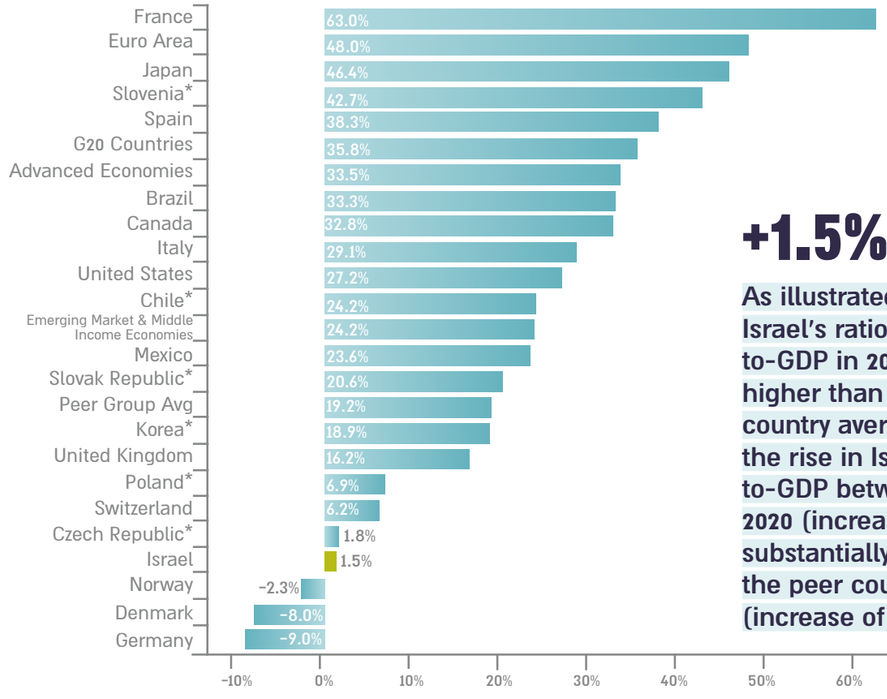


*When referring to the State of Israel's peer countries, rating agencies mention different countries such as Slovenia, Chile, Slovakia, South Korea, Poland and Czech Republic.

Change in the Ratio of Public Debt-to-GDP between 2019 and 2020



Change in the Ratio of Public Debt-to-GDP between 2010 and 2020



+1.5%

As illustrated in the chart, Israel's ratio of public debt-to-GDP in 2020 is relatively higher than the peer country average. However, the rise in Israel's debt-to-GDP between 2010 to 2020 (increase of 1.5%) is substantially lower than the peer country average (increase of 19.2%)

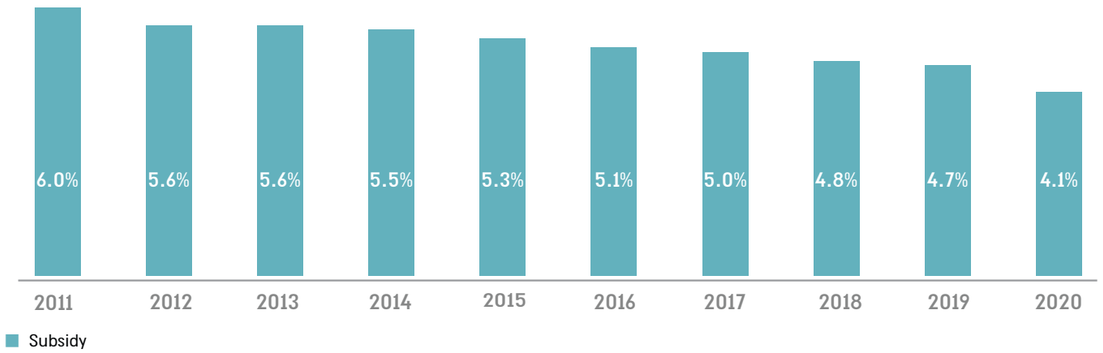
*Peer countries

INTEREST EXPENSES

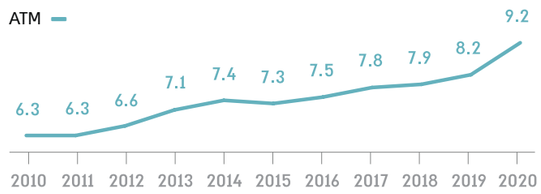
Interest expenses in 2020 reached NIS 38.0 billion, from NIS 38.1 billion in 2019. Total government expenditures (including Covid-19 expenditures) in 2020 reached NIS 479 billion, compared with NIS 401 billion in 2019. The rate of interest expenditures relative to total government expenditures in 2020 was 7.9%, compared with 9.5% in 2019.

As seen in the following graph, the interest expense rate relative to government debt has been on a downward trend over the past decade from a rate of 6.0% in 2011 to a rate of 4.1% in 2020.

Interest Expenses Relative to Government Debt in 2011-2020 (percentage)



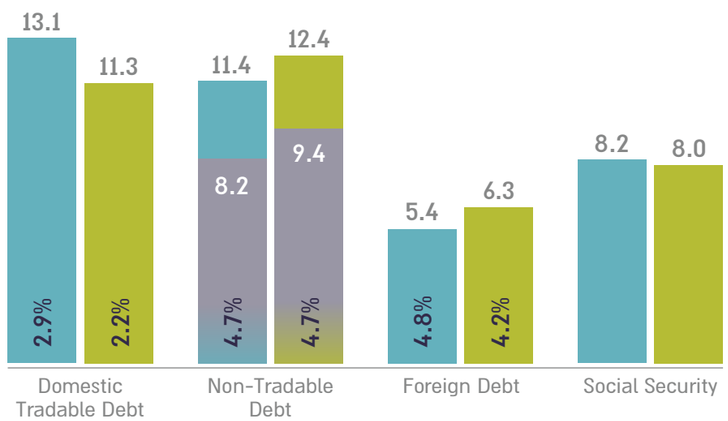
Although interest expenses relative to debt are on a downward trend, the ATM of the debt portfolio is on an upward trend and reached a level of 9.2 in 2020. This trend, together with the decrease in interest expenses, is a result of ATM extension while lowering issuing costs.



The following graph shows a comparison between the years 2019-2020 of interest expenses for each segments in relation to the total debt in that segment.

For the domestic tradable segment, interest expenses decreased by NIS 1.8 billion from a level of NIS 13.1 billion to a level of NIS 11.3 billion. The rate of interest expenses for the tradable segment of total tradable debt decreased by 0.7% from a level of 2.9% to Of 2.2%.
For the external debt segment, interest expenses increased by NIS 0.9 billion from a level of NIS 5.4 billion to a level of NIS 6.3 billion. The rate of interest expenses for the external segment from the total external debt decreased by 0.6% from a level of 4.8% to a level of 4.2%.
For the non-tradeable segment, interest expenses increased by NIS 1.0 billion from a level of NIS 11.4 billion to a level of NIS 12.4 billion.
For the Social Security Institute, interest expenses decreased by NIS 0.2 billion from a level of NIS 8.2 billion to a level of NIS 8.0 billion.

Interest Expenses Relative to Debt by segments in 2019-2020 (NIS, billions)



*The Social Security debt is not considered part of the government debt

GOVERNMENT DEBT RISK MANAGEMENT

The top-line risks for the government debt portfolio are: refinancing risk; liquidity risk; market risk, and credit risk. Risk management is carried out in accordance with organized policy and as part of the long-term strategic plan for managing the government's debt, treasury, and liquidity. The Ministry of Finance's risk management strategy relies on sophisticated models, scenarios and simulations that help minimize economic and budgetary risks. Designated systems for government debt risk management are utilized to this end.

The following dashboard indicators represent the various risks of managing the government's debt. Each indicator presents ten-year history and indicates the maximum, minimum, and average metric for that period. The arrow points to the current figure and the color of the panel represents the desired direction.

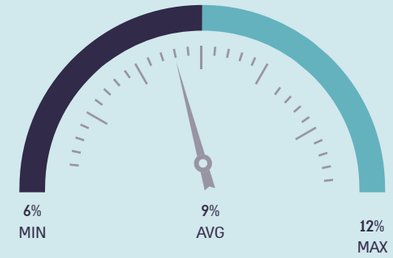
KEY FINANCIAL RISKS:

1 **Refinancing risk** - a situation whereby the state is unable to uphold its obligations to pay past debts and is, in effect, approaching insolvency. Reliable debt-raising of consistent amounts leads to greater confidence for both decision-makers and capital market operators. It may also lead to higher bid-to-cover ratios, which enable more efficient debt refinancing - thus reducing refinancing risk. Issuing for longer maturities extends the government's debt ATM (average term-to-maturity) and further helps reduce refinancing risk.

Refinancing risk is projected by the following measures:

- Examining the extent of short-term debt (debt that must be redeemed over the upcoming year) relative to total debt (rollover ratio). According to the risk management policy, this should remain within the range of 8%-12%.

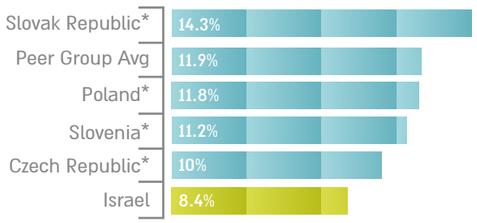
ROR Index



As of the end of 2020, this index was in the lower end of the target range at 8.4%, up from 7.9% in 2019.

The graph below presents a global comparison of the ROR index with the peer countries, as can be seen, both Israel and the average of the peer countries (Excluding Israel) is in the accepted range between 8% to 12%.[2]

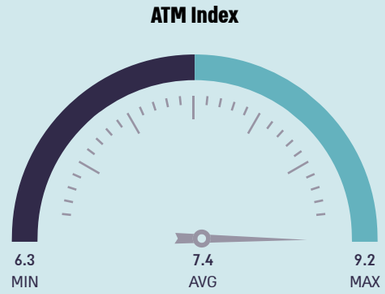
ROR Index - Global Comparison



[2]Source: World Bank Q3-2020

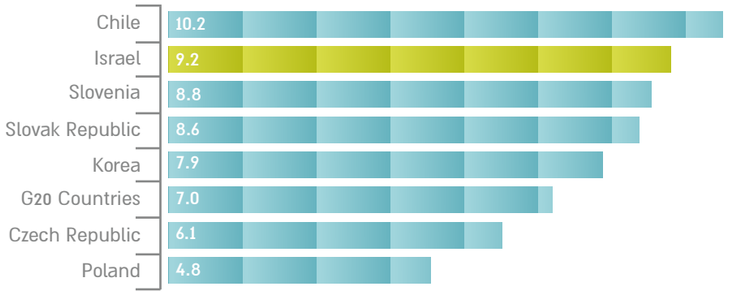
- Average time-to-maturity (ATM): This index reflects the average life of the debt portfolio by the weighted average of principal repayment dates. As this index is only an average, it is incomplete when estimating the risk. Thus, it is used in combination with the rollover ratio for projecting refinancing risk one to three years ahead. Refinancing risk is reduced by maintaining a policy in which reliable amounts of bonds are issued for consistent periods of time, such as 3, 5, 10 and 30 years (benchmarks). The aim of keeping issuances consistent is to smooth the redemptions curve. As of the end of 2020, this index was 9.2 as opposed to 8.2 in 2019. Illustrated in the graph below, the ATM of the debt portfolio increased dramatically over the years and is now at its highest rate of the past decade.

The debt portfolio's ATM has been significantly extended and is at its highest level in the past 10 years



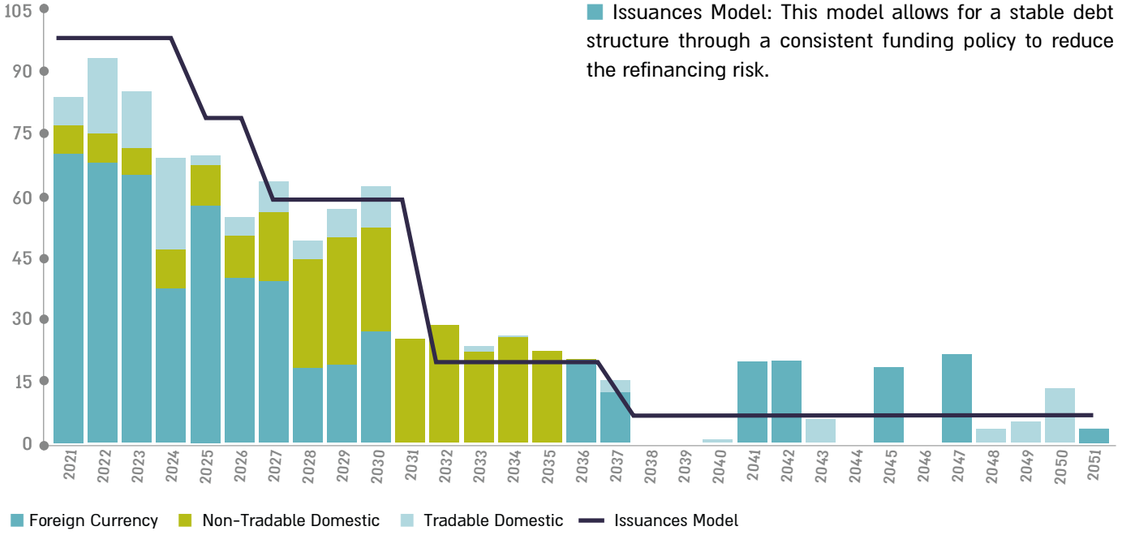
When determining a target ATM for the debt portfolio, a comparative analysis is conducted. This analysis compares Israel with other countries, examines various global macroeconomic trends, and identifies countries with similar characteristics. As illustrated in the graph, the ATM index of the debt portfolio is higher than most of the peer countries and other developed countries[3].

ATM Index - Global Comparison



[3]Source: Ministry of Finance and Bank of Israel, other countries - Fiscal Monitor, October 2020.

SEVERAL MODELS WERE USED TO MANAGE THIS RISK:



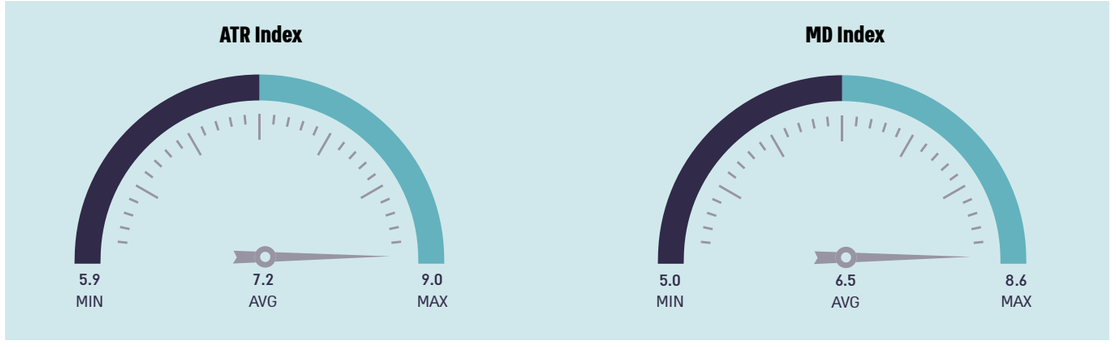
- Issuances Model: This model allows for a stable debt structure through a consistent funding policy to reduce the refinancing risk.
- New Series Model: This model plans new bond series in advance. This minimizes monthly redemptions and volatility in the interest rate budget.
- Continuous examination of key indicators, such as ATM and the rollover ratio.

2 **Liquidity Risk** - The risk that existing sources of financing are not large enough to meet the state's needs. Estimation and management of this risk are measured through models, scenario analysis (central scenario, stress scenarios and extreme scenarios) and simulations for daily monitoring. Liquidity instruments are also used. These include short-term bonds, switch auctions, and buyback auctions. In order to deal with various scenarios, the State of Israel maintains a liquidity cushion, in accordance with its risk management strategy, while examining the deficit between income and expenses.

3 **Market Risks** - The risks of changes in government debt and interest budgets as a result of market-factor fluctuations (CPI, interest, and exchange rates). Estimates for these risks are carried out via sensitivity analysis. Management is carried out through hedging exposure with various financial instruments, such as forward transactions.

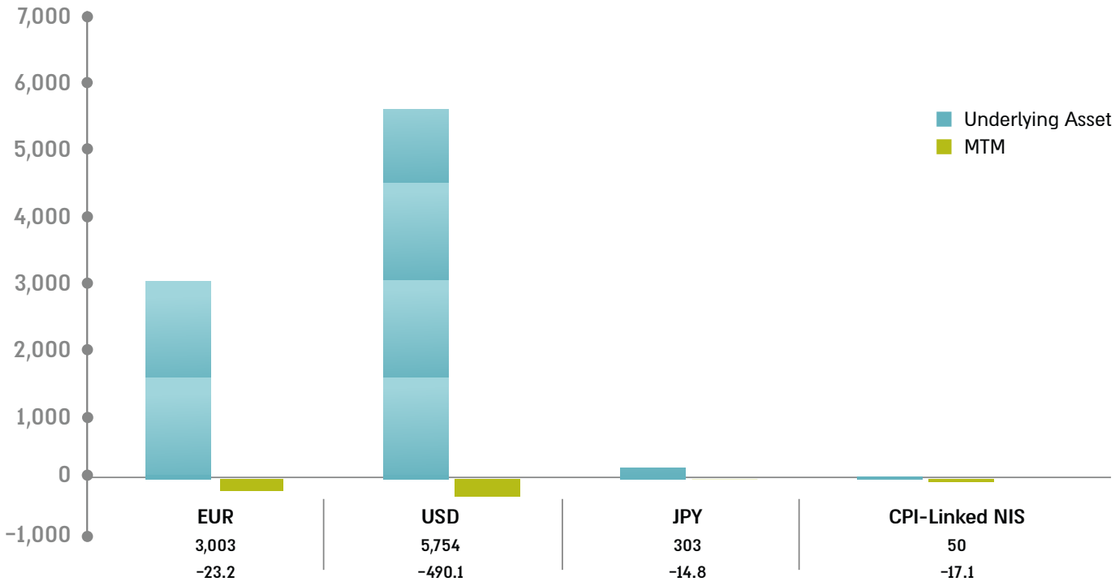
This risk is estimated using the following indices:

- Modified Duration is an index that helps determine the influence of the interest rate on the debt's market value. In 2020, the modified duration increased to 8.6 from 7.7 in 2019 mainly as a result of long-term issuance in large quantities.
- Average Time-to-Refixing (ATR): Is an index that examines interest risk to an issuer. The dashboard below illustrates that most of Israel's government debt is at a fixed interest rate, so ATR is 9.0, similar to the ATM.
- Exposure to Consumer Price Index (CPI): CPI-linked debt comprises 48% of total debt. Thus, the a large percentage of the debt portfolio's sensitivity is affected by changes in the CPI. A 1% rise in the CPI leads to an increase of approximately NIS 4.7 billion in debt.
- Exchange Rate Changes - As of the end of 2020, approximately 16% of the total debt is denominated in foreign currency. Therefore shifts in exchange rates against foreign currencies can have a significant impact on government debt levels. As part of market-risk management, hedging is utilized to reduce exposure of government debt to these shifts.



Credit Risks - The State's activities in hedging agreements expose the government to credit risk should the counterparty become insolvent. The strategic goal of hedging deals is minimizing the impact of changes in the value of foreign debt as part of managing market risks. Hedging deals consist of long-term, hedging via cross-currency swap, and short-term, hedging via forward and FX swaps, in both USD and Euro. As of December 31, 2020, the government's inventory of hedging transactions totaled USD 9.11 billion. The fair value (mark-to-market) of all positions as of December 31, 2020, was approximately USD 545 million in the counterparty's favor, due to the strengthening of the shekel relative to the U.S. dollar.

Total Amount of Hedge Deals and MTM



Additional Risks - The Risk Management Department is always monitoring additional factors or risks that may affect the government's debt portfolio.

Additional models for managing government debt risks:

- Risk cost model - analysis of the risk cost of the issuance policy for the short-, medium-, and long-term.
- Structure debt simulations - building simulations of issuance in the short-, medium-, and long-term, creating different scenarios to view effects of different exposures and issuance strategies.
- Debt-to-GDP forecasts - The debt-to-GDP ratio is a key indicator for evaluating the state's financial stability. Projections of the ratio are analyzed under different market and economic scenarios.
- Financial pricing - Use of various analytic models and financial tools to price bonds and hedge foreign currency exposure.
- Interest payment forecast - Utilizing a bottom-up method to look at changes in market factors, both in Israel and abroad, and changes in redemption schedules (new issues, switch auctions, buyback auctions) to better forecast distribution of current payments.

AVERAGE SERIES SIZE AND NUMBER OF SERIES

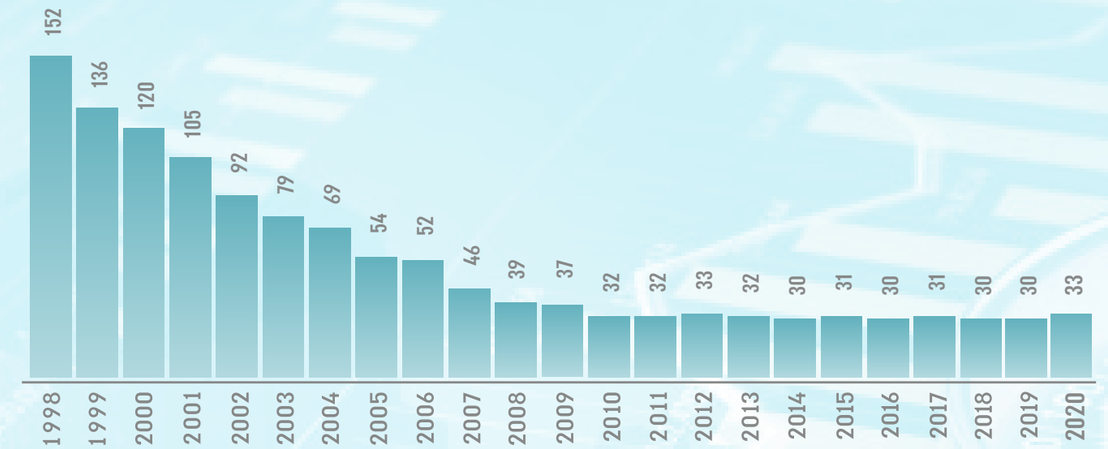
The GDMU's policy is to minimize the number of bond series while increasing each series' size. The graph below illustrates the result of GDMU policy: a decrease in the number of series and increase of series size over the years. This policy improves the tradability and liquidity of the bonds, which reduces the issuance cost. Over the course of 2020, short-term bonds were issued as part of the debt management strategy.

In 2020, six new series were issued in the tradable domestic market:

- Three Nominal Tradable domestic bonds (0723 maturing in 2023, 0425 maturing in 2025, 0537 maturing in 2037)
- Two CPI Linked Bonds (0726 maturing in 2026, 1151 maturing in 2051)
- One Floating Rate Bond (1130 maturing in 2030)

In 2020, three old series matured. With six new series added, the total tradable series increased from 30 in 2019 to total 33 series at the end of 2020.

Number of Tradable Series in 1998-2020



Average Series Size in 1998-2020 (NIS, Bilions)