

TASE IN 2020*

Trading on TASE was marked by high volatility in highly active trading, influenced in large part by developments related to the coronavirus pandemic.

The TA-35 index fell 11%, while the TA-90 index rose 18% over the year.

The TA Tech-Elite and TA-Technologies indices surged 38% on average, reaching all-time record highs. These indices also lead in the five-year period 2016-2020, posting cumulative returns of 131% and 210% respectively.

Average daily trading volume in the equity market, including Israeli ETFs came to US\$ 540 million, a 48% increase relative to the 2019 average.

This year 27 IPOs joined TASE, collectively raising US\$ 1.4 billion. Of these, 10 are large-cap companies, which have joined the TA-90 index.

In addition, 3 companies dually listed their shares on TASE and 5 companies listed on TASE following reverse mergers with inactive TASE-traded companies.

18 of the IPOs this year are high-tech companies, of which 5 constitute the first R&D limited partnerships to list on TASE. The number of IPOs completed this year is the greatest since 2007.

The number of companies whose shares trade publicly on TASE stands at 455 companies, as opposed to 442 companies at the end of 2019; of these, 52 are dual listings.

The total equity raised on TASE came to US\$ 5.0 billion as opposed to US\$ 3.8 billion in the previous year.

Principal shareholders sold equity holdings of US\$ 1.4 billion, and purchased US\$ 0.5 billion this year, raising TASE's free float to 64%.

Average daily trading volume in the corporate bond market (including ETFs) came to US\$ 1.2 billion – 22% higher than that of 2019.

The prices of virtually all classes of corporate bonds fell this year, while prices of virtually all classes of government bonds, starting with fixed-rate non-linked “shekel” bonds, rose following falling local interest rates and growing demand by foreign investors.

US\$ 16.4 were raised on TASE in corporate bond offerings and structures to the public and institutional investors.

***All data in this review are stated in terms of US dollars, except for returns on indices, which are expressed in terms of the local currency – unless stipulated otherwise. In 2020, the exchange rate of the dollar depreciated 7% against the NIS.**

At a time when banks lowered lending activity, the public capital market lent support to the credit market throughout the crisis. The real sector raised US\$ 11.5 billion this year, slightly more than in the previous year, despite the contraction of business activity resulting from the coronavirus crisis.

The financial sector, particularly the large banks, reduced the total debt it raised in the bond market to US\$ 3.5 billion.

Real estate companies continue to lead debt issuers this year, raising 64% of the total raised by the entire real sector.

Israel government bonds were added to the FTSE Russell World Government Bond Index (WGBI) starting in April 2020, an event which attracted purchases by foreign investors.

Trading in TA-35 index options was active this year following the high volatility in the equity market, as reflected in the VTA35 volatility index. Similarly, trading in NIS/dollar options was brisk in wake of the high volatility of the dollar exchange rate.

531 Israeli ETFs and 23 foreign ETFs (managed by BlackRock and traded abroad as well) currently trade on TASE. The total market capitalization of all ETFs comes to US\$ 28.3 billion.

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Equity Market

Share Prices

Stock trading on TASE was highly volatile throughout 2020, as it was on leading securities exchanges worldwide. **This can be attributed to the coronavirus pandemic, which set off a deep economic crisis in all markets across the globe.** The year started on an upswing, continuing the bull rally of the previous year. TASE's leading share price indices, **starting with the TA-35 index, reached all-time record level in February 2020;** the TA-35 coming to 1751.79. This early surge was in keeping with trends in leading world stock markets.

The coronavirus, which broke out in China at the end of December 2019, quickly spread throughout the world, and in March 2020, was recognized by the World Health Organization as a "pandemic". Following the market rally at the beginning of the year, stock prices abruptly **plunged, posting record declines in March 2020,** at a time in which many countries, including Israel entered lockdown to contain the spread of the virus.

The overall reduction of economic activity and the stay-at-home restrictions imposed on residents during the "first wave" of the coronavirus outbreak in March 2020, and subsequently during the "second wave" in September, precipitated an economic crisis in Israel as it did worldwide. Unemployment in Israel soared, the GDP plummeted, and market uncertainty increased.

On the other hand, government and central bank stimulus programs in Israel, as in the world, and the fervent and ultimately successful race for the development of vaccines and drugs to contain infection and prevent death from the virus, had a positive impact on the market, contributing to price gains amidst high volatility. **In November,** following announcements from leading pharmaceutical companies, "Pfizer", "Moderna" and "Astrazeneca", regarding the significant progress made in developing their vaccines, **share prices rose by an average of 12% in both foreign markets and Tel Aviv.** The rally continued throughout December, albeit at a more moderate pace. The rollout of the Pfizer-Biontech, initially in the U.K., US and Israel and later in Europe added fuel to rally. At the same time, however, an additional surge in the coronavirus outbreak and the discovery of a mutation of the virus in Britain, which led to tighter restrictions and reinstated lockdowns curbed investor enthusiasm.

In total, the TA-35 index fell 11% in 2020, following a 15% increase in 2019. The index had plunged 31% from the beginning of the year to the low point of the crisis in March 23th, recovering 28% by the end of 2020.

The TA-90 index gained 18% over the year, outperforming the MSCI World Index, which rose 14%, while the S&P 500 and the Dow Jones indices, representing the "traditional" US economy, rose 16% and 7% respectively, and European exchanges lost 5% on average.

The key factors having a positive impact on the Tel Aviv equity market include:

- **Government assistance programs,** like similar programs instituted in leading countries worldwide, totaling US\$ 29 billion, 7% of the Gross National Product, included, *inter alia*: grants to self-employed individuals and small businesses, a government-secured credit fund for large enterprises, payroll protection grants to support employees and return them to the work force, the extension of unemployment benefits to furloughed workers until June 2021, assistance to citizens and tax relief on the withdrawal of savings from professional training funds (*kranot hishtalmout*). In December 2020, the Ministry of Finance announced that unemployment benefits will not be discontinued in June 2021, but rather will be continued until the unemployment rate falls below 7.5%.

- **Bank of Israel stimulus programs**, similar to the programs launched by central banks abroad, included *inter alia*:

- Monetary easing – On April 6, 2020, the Bank of Israel lowered the interest rate by 0.15% to its lowest level of 0.1%, in keeping with the worldwide trend and based on negative inflation rate of -0.7% in 2020. The low interest rate contributed to brisk capital raising activity on the primary equity and bond markets.
- Quantitative easing – A program to purchase government bonds for a total of US\$ 25 billion on the secondary market – a step not taken by Israel’s central bank since the 2008 financial crisis, repo transactions secured by government bonds with financial institutions and dollar/shekel repo transactions with the financial system for a total of US\$ 15 billion – a measure never undertaken before.

For the first time in its history, the Bank of Israel announced a program to buy corporate bonds for US\$ 4.5 billion on the secondary market. The program included investment grade bonds rated A- and above, but excluded bonds issued by foreign entities, bonds with an equity component (such as CoCos), or bonds which are not pegged to the shekel and are not fixed-rate instruments. These purchases provided TASE’s bond market with a positive tailwind. The Bank also announced that it would loan banks funds at a negative interest rate of -0.1% for a period of four years against loans extended by the recipient banks to small businesses and microenterprises. This program remains valid through the end of June 2021, and it was recently announced that starting in January 2021, the central bank will conduct repo transactions with regulated non-bank lenders that provide credit to small businesses and microenterprises.

- **Normalization with Arab states** – The signing of the historic peace agreement between Israel and the United Arab Emirates and declaration of peace with Bahrain in September, October - the normalization agreement with Sudan, and in December – the agreement with Morocco.
- **Israel’s sovereign credit rating** – The international credit rating agency, **S&P** affirmed (in January, May and November, 2020) its highest ever credit rating for Israel (AA-, stable outlook), while rival international credit rating agency, **Fitch**, affirmed its rating for Israel at A+ with a stable outlook (April 2020).
- **Contributing international factors:** the lowering of interest rates in tandem with quantitative easing by central banks abroad, *inter alia*: **the US Federal Reserve (the Fed)** lowered the interest rate twice in March 2020 by a total 1.5% to a level of 0%-0.25%. It announced its program to purchase US treasuries, and for the first time in its history, it announced direct purchases (i.e., not through ETFs) of corporate bonds for up to US\$ 750 billion as well as treasuries and municipal bonds of up to US\$ 500 billion. It also established temporary dollar liquidity arrangements (swap lines) with 15 foreign central banks.

The **European Central Bank (ECB)** announced that it is considering lowering the interest rate from 0% to minus 0.1% and has undertaken additional supporting measures, including the purchase of government securities. The scope of the assistance program comes to 1.9 trillion Euro and has been extended to March 2022.

In addition to the monetary easing by foreign central banks, the provision of unprecedented government fiscal assistance, reaching 10%-25% of GDP. The United States stands out with its US\$ 3 trillion stimulus program (16% GDP). It is noteworthy that following the Fed’s policy to print money to finance the US government’s comprehensive assistance programs, the exchange rate of the dollar fell to NIS 3.21 on 30 December 2020 – its lowest level in 24 years, 7% lower than the rate at the beginning of 2020.

Announcements by international pharmaceutical companies in November regarding progress in the development of vaccines against the coronavirus led to a spike in market prices averaging 12%. **The rollout of vaccinations against the coronavirus in December** contributed to a continuation of the market rally.

The key factors negatively affecting the Tel Aviv equity market include:

- Negative macroeconomic indicators:
 - Soaring unemployment – Data released by Israel’s Central Bureau of Statistics (CBS) indicate that the rate of coronavirus- related furloughed employees and unemployed reached a record level of 65% in April, and later stabilized at 10.4% in December, 2020.
 - Recession –GDP is expected to contract by 5% in 2020.
 - Increase in the national budget deficit following the economic support programs to 13% in 2020, as opposed to the 3.7% annual deficit in 2019.
 - Anticipated increase in the ratio of debt to the GDP in 2020 to 77%, after declining to 60% in 2019. This is a result of the increase in government bond issues and decrease of the GDP.
 - The Composite State-of-the-Economy index, which has been on an upward trajectory over the past ten years, began falling in March 2020. In April, it dropped 2.5% - the sharpest decline posted for this index in more than 20 years.
- Repeat national elections in March, 2020 for the third time in less than a year, and failure to approve the 2020 budget.

In the international arena:

- According to International Monetary Fund (IMF) economists, the coronavirus crisis is expected to engender a contraction of 5% - the sharpest drop in growth since World War II. The ratio of debt/GDP in developed economies will reach 132% in 2021 as opposed to 105% in 2019.
- In the United States, the contraction of GDP is expected to culminate at 6%, as opposed to the 2019 3% growth rate. The unemployment rate spiked to 15% in April, 2020 after reaching a record low 3.6% at the beginning of the year, and is expected to end the year at 10%.
- In European countries, the contraction is expected to be as much as 10%, while in China, the growth rate for 2020 is anticipated to be 2% - the lowest rate since 1992.
- The price of oil dropped this year by 22%, while on 28 April 2020, the price of crude oil was US\$ 23 a barrel, a twenty-year low. The price of gold, on the other hand, gained 25% over the year, reaching an all-time high of US\$ 2,064 an ounce on 7 August, 2020.

Table 1: Rate of Return on Select TASE Equity Indices

	2020	2019	2016-2020
TA-35	-11%	15%	-2%
TA-90	18%	40%	128%
TA-125	-3%	21%	19%
TA-SME60	16%	10%	14%
TA-Growth	29%	26%	69%
Ta Tech-Elite	39%	40%	131%
TA-Technology	38%	55%	210%
TA Banks-5	-22%	27%	52%
TA –Real Estate	-5%	73%	113%

The TA-90 index gained 18% this year, following sharp gains of 40% in 2019, **and reached an all-time record high**. The rally enjoyed by technology and biomed shares outweighed the negative impact of oil & gas and real estate shares in the index. **The TA-Growth index, which also attained all-time record highs, rose 29% this year**, repeating its performance of the previous year.

The coronavirus crisis had a particularly adverse effect on the following sectoral indices:

- **The TA Oil & Gas index** of energy companies and limited partnerships plunged **45%** following the drastic reduction of manufacturing activity worldwide and the sharp decline of oil and gas prices.

- The **TA Banks-5 index**, which had reached record highs in January 2020 and closed **22%** lower following the sharp increase in credit losses and a reduction in the scope of lending activity. To encourage bank lending activity, the Supervisor of Banks lowered the capital adequacy requirements imposed on banks by one half of a percent, launched a bank lending program at a minus 0.1% interest, and more recently, raised the ceiling on the credit banks can extend to the real estate and infrastructure sectors from 24% of their total credit to 26%.
- The **TA- Real Estate index** peaked in February but ended the year with negative returns of **5%**. **The shares of investment property companies** dropped as much as **25%** following the shift to online commerce and remote working, the closure of shopping malls during lockdowns and the lowering of rents. In contrast, **construction company shares** posted slight losses of 1% until December, but rebounded dramatically at the end of the year, rising 17% in December, following the Bank of Israel's announcement of its intention to expand variable rate lending (prime) for apartment buyers and to raise the ceiling on loans at this rate from one third to two thirds of the total mortgage – a measure which is expected to increase demand for apartments given the lower effective mortgage costs.

In contrast, the coronavirus pandemic helped technology companies flourish. Most of these are engaged in technologies for working remotely and for e-commerce, while some operate in alternative energies – a growth area of late. **The TA Tech-Elite and TA-Technologies indices shot up by 39% and 38%** respectively, returns similar to those of the NASDAQ-100 index (which gained 44% over the year), **and reached all-time record levels. These indices also lead the sectoral indices in five-year returns, posting respective gains of 131% and 210% for the period 2016-2020. The TA-Biomed index** posted gains of **18%**.

The positive price returns posted for these shares was well reflected in the semi-annual rebalancing of TASE indices which took place on August 9th and included the entry of six companies, all of which are from the high tech and cleantech sectors, to the TA-35 index: **Opko Health, Energix, Matrix, Maytronics, Nova, and Sapiens.**

These shares have replaced those of traditional economy companies, which were hit by the coronavirus amid plunging stock prices: **Bazan, Gazit Globe, Delek Group, Delek Drilling, Israel Corp and Fattal Holdings.**

Five new equity indices were launched in 2020:

- **On 9.2.2020, TASE launched three real estate indices: TA-Investment Properties in Israel index, TA-Investment Properties Abroad index and TA-Construction index**

The launch of these new indices enables investors seeking to invest in investment property real estate companies, the ability to make a geographic distinction between specialization in investment properties in Israel and investment properties abroad, as well as the opportunity to invest in a basket of listed construction companies.

The **TA-Investment Properties in Israel index** currently includes 26 shares with a total market capitalization of US\$ 30.6 billion, of which 17 are also constituents of the TA-125 index (and 6 of which are constituents of the TA-35 index).

The **TA- Investment Properties Abroad index** currently comprises 15 shares for a total market capitalization of US\$ 6.8 billion, of which 6 are also included in the TA-125 index.

The **TA-Construction index** has 25 constituents with a combined market capitalization of US\$ 10.2 billion, of which 6 are also constituents of the TA-125 index (one of which is also included in the TA-35 index).

- **TASE launched two “green” indices:**

- **On 8.11.2020, the TA-Cleantech index**, comprises shares of companies categorized in the Cleantech subsector of the Technology Sector.

It is anticipated that electricity based on renewable energy will come to Israel by the end of 2020 but will contribute only 9% to the total electricity production. Electricity production from renewable energy is expected to increase in the future, due to environmental regulation and the development of local cleantech industries. By 2030, renewable energy will provide a projected 30% of Israel’s electricity. There are currently 12 constituents in the index with a total market capitalization of U.S.\$ 12.2 billion, of which 7 are also constituents of the TA-125 index (and 2 of these are included in the TA-35 index as well).

- **On 6.12.2020, TASE launched the TA-125 fossil fuel-free Climate index**, which comprises TA-125 companies that are not part of the fossil fuel production chain (gas, coal, oil, oil shale and their derivatives). The list of disqualified “fossil entities” is set by the “Fossil-free Money Forum” of the “Life and Environment” – the umbrella organization for Israeli environmental NGOs. There are currently 112 shares (of which, 32 are constituents of the TA-35 index) in the index, with a total market capitalization of US\$ 191.1 billion.

Equity Trading Volume

Table 2: Average Daily Trading Volume in the Equity Market (in US \$ million)

	2020	2019	% change
Shares including ETFs	540	365	48%
Shares excluding ETFs	426	303	41%

Shares trading in 2020 was active posting an average daily volume of US\$ 540 million – 48% greater than the 2019 average. Trading was highly volatile, as in March, at the height of the crisis, the daily volume averaged US\$ 796 million. In contrast, average daily volume in the months May-December came to US\$ 500 million.

Shares Market Free Float

In 2020, **the sell-off of shares by principal shareholders** continued, albeit at a slower pace than in previous years. Principal shareholders liquidated shareholdings of some US\$ 1.4 billion, but purchased shares for US\$ 0.5 billion. As a result, the free float grew slightly, reaching 64% at the end of the year.

Net sales came to US\$ **0.9** billion, following sales of US\$ 1.6 billion in 2019. Prominent sales this year include the sale of a 26% stake in **Shufersal** by Discount Investments for US\$ **0.4** billion and the distribution of 33% of Bank Hapoalim's holdings in **Isracard** worth US\$ **0.2** billion as a dividend in kind. The objective of this distribution was to meet the recommendations of the Strum Committee on the divestment of credit card companies from commercial banks

In contrast to these sales, the purchase of **Gav-Yam** shares by Aharon Frankel, for US\$ **0.3** billion stood out.

Equity Capital Raising

Table 3: Equity Raised on TASE, 2018-2020

	2020 (million dollars)	2019 (million dollars)	2018 (million dollars)	2020 No. public offerings + private placements	2019 No. public offerings + private placements	2018 No. public offerings + private placements
Public offerings <i>of which, IPOs</i>	3,572 <i>1,371</i>	2,353 <i>902</i>	1,028 <i>517</i>	115 <i>27</i>	60 <i>7</i>	64 <i>11</i>
Private placements	1,244	1,183	580	121	98	74
Warrant exercise	151	223	250	-	-	-
Total	4,967	3,759	1,858	236	158	138

* IPOs do not include companies which listed shares without raising capital (dual listings and reverse mergers).

The total equity raised on TASE in 2020 came to US\$ 5.0 billion, as opposed to US\$ 3.8 billion in 2019.

Capital raised in public offerings amounted to **US\$ 3.6 billion**, 46% greater than the amount raised in public offerings in the previous year. Of this sum, **US\$ 1.4 billion was raised in 27 IPOs – marking the highest number of new issuers since 2007**, as opposed to 7 IPOs in 2019. An analysis of this year's IPOs reveals that:

- **Increasing use of book building offerings to institutional investors** – Following years in which companies floated shares solely through uniform price Dutch auctions, in 2019 issuers started 'going public' through book building offerings to institutional investors, a trend which has gained popularity this past year. 21 companies completed IPOs using this method, raising a total of US\$ 1.2 billion – an amount representing 94% of the total raised in IPOs this year. This contrasts with the three IPO issuer that employed this method in 2019, accounting for 29% of the total raised in IPOs that year.
- **Prominent public offerings** completed this year in clued **10 large IPOs: Nofar Energy for US\$ 0.8 billion, Israel Shipyards and Max Stock for US\$ 0.5 billion each, Ecoppia for U.S \$0.4 billion, Aquarius Engines, Direct Finance, Supergas Energy and Polyram Plastic for US\$ 0.3 billion each, and Gencell and Doral Energy for US\$ 0.24 billion and US\$ 0.2 billion respectively.** Five IPO companies immediately joined the TA-90 index, while it is anticipated that the five last companies to go public (Ecoppia, Aquarius, Gencell, Nofar Energy and Polyram) will join this index at the beginning of 2021.
- **Five R&D limited partnerships** listed units in the second half of the year, **the first partnerships to list on TASE** since the regulations enabling their listing were published in May 2019: **Millennium Food-Tech, Unicorn, Almeda Ventures, Smart Agro and I.I.M. Infinity.**

- **18 of the new issuers this year are high tech companies** – industries left basically unscathed by and even benefitting from the coronavirus pandemic.
- **Global offerings** – controlling shareholders in **Max Stock** - a discount housewares chain, sold holdings of **US\$ 157 million** to the public in a **book building offering to institutional investors in Israel and abroad**, similar to the offering completed by the Tel Aviv Stock Exchange in the previous year. The book building method facilitates the inclusion of foreign investors. The Max IPO is the largest of this year’s crop of IPOs on TASE.

Table 4: List of 27 IPOs – business activity, proceeds, after-the-money valuation

Issuer	Business Activity	Proceeds (million US dollars)	After-the-Money Valuation (million US dollars)
1. Nofar Energy ⁽¹⁾	Investment in and development of “clean”, solar-based energy projects	188	792
2. Max Stock ⁽¹⁾	Discount retail chain	157	497
3. Israel Shipyards ⁽¹⁾	Investments and holdings – primarily marine manufacturing, port and logistic services	100	500
4. Ecoppia ⁽¹⁾	Development, marketing and maintenance of robotic systems to clean solar facilities	84	368
5. Direct Finance ^(1,4)	Consumer credit provider	41	306
6. Supergas Energy ⁽¹⁾	Procurement, storage and marketing of carbon gas, natural gas and electricity	78	299
7. Aquarius ⁽¹⁾	Development, manufacture and marketing of internal combustion engines and generators	67	309
8. Polyram ⁽¹⁾	Manufacture and marketing of thermoplastic compounds used in the plastics industry	104	301
9. Genecell ⁽¹⁾	Development, manufacture and marketing of electricity supply systems based on alkaline fuel cells	61	240
10. Doral Energy ^(1,2)	Construction, maintenance and operation of renewable	36	202

Issuer	Business Activity	Proceeds (million US dollars)	After-the-Money Valuation (million US dollars)
	energy systems in Israel and the U.S.		
11. Manif ⁽¹⁾	Real estate and construction financing	61	197
12. Azorim Living REIT⁽¹⁾	Real Estate Investment Trust (REIT) specializing in the construction of residential rental properties in Israel	116	180
13. Human Xtensions⁽¹⁾	Development, manufacture and marketing of medical devices for minimally invasive surgery	48	176
14. Highcon Systems⁽¹⁾	Research, development and production of digital systems for carton packaging and product manufacturing	45	149
15. Meshek Energy⁽¹⁾	Installation and operation of solar energy electricity facilities	41	109
16. M.L.R.N. Projects	Non-bank credit provider, primarily to Israeli Arabs	18	82
17. Savoreat⁽¹⁾	Development and 3-D printing of plant-based meat products	13	57
18. Fire & Gas Detection Technologies	Development of smoke and gas detectors primarily for the oil industry	8	53
19. Almogim Holdings	Development and management of residential real estate projects	11	44
20. Sonovia⁽¹⁾	Research and development for the commercialization of patents and know-how in anti-bacterial coverings	11	42
21. SaverOne ⁽³⁾	Development of car accident prevention systems for accidents caused by cell phone use while driving	5	32

Issuer	Business Activity	Proceeds (million US dollars)	After-the-Money Valuation (million US dollars)
22. Bladeranger⁽¹⁾	Development of mobile robotic systems through dedicated technology to monitor solar installations	7	28
23. Unicorn Technologies⁽¹⁾	R&D limited partnership investing in technology companies	21	21
24. Almeda Ventures⁽¹⁾	Limited partnership investing in R&D in digital health and medical equipment	20	20
25. I.I.M Infinity⁽¹⁾	Limited partnership engaged in investments in R&D in digital health	13	13
26. Smart Agro	Limited partnership investing in companies engaged in agrotech R&D	8	8
27. Millennium Food Tech⁽⁵⁾	R&D limited partnership in the area of foodtech – food supplements and innovative food	8	8

(1) Book building offering to institutional investors.

(2) Doral raised an additional US\$ 69 million in two other offerings.

(3) SaverOne raised an additional US\$ 6 million in another offering.

(4) Direct Finance raised an additional US\$ 46 million in another offering.

(5) Millennium Food-Tech raised an additional US\$ 16 million in another offering.

Among the follow-on offerings of seasoned issuers, the following stood out this year:

- **O.P.C** an energy company raised US\$ **218** million in **the largest public shares offering of the year** and raised an additional US\$ **103** million in a private placement to institutional investors.
- **Energix** a renewable energies company raised US\$ **284** million in a follow-on offering of shares and convertible bonds.
- **El Al** an airlines company, whose activity was completely curtailed during Israel's first coronavirus lockdown and has since been highly limited, raised US\$ **148** million in a follow-on shares offering in September – on the eve of a second lockdown. Likewise, the **Fattal** hotel chain company raised US\$ **122** million in a follow-on shares offering.

Table 5: Equity Offerings and Private Placements by Sector**(in million US dollars)**

Sector	2020 total	2020 %	2019 total	2019 %	2018 total	2018 %
Total*	4,816	100%	3,536	100%	1,607	100%
Finance Sector:	328	7%	883	25%	67	4%
Financial services	328	7%	699	20%	10	1%
Insurance	-	-	184	5%	57	4%
Real Economy Sector:	4,488	93%	2,653	75%	1,540	96%
Technology	1,374	29%	337	10%	268	17%
Real estate	962	20%	1,163	33%	189	12%
Commerce & services	672	14%	469	13%	461	29%
Energy & gas	663	14%	93	3%	82	5%
Investments	420	9%	261	7%	86	5%
Biomed	289	6%	248	7%	190	12%
Manufacturing	108	2%	81	2%	264	16%

* Excluding public offerings and private placements completed abroad.

Reverse Mergers**This year five new shares technology and biomed companies completed reverse mergers:**

- ❖ One company engages in the medical cannabis industry:
 - The business activity of “Nextage”, which engages in the development, manufacture and sale of innovative cannabis-integrated therapeutic products, was merged into “Micromedic”. The merger involved the placement of 83% of the company’s shares. Valuation of the company rose from US\$ 6 million on the eve of the placement to US\$ 24 million at the end of the year.
- ❖ Four technology companies:
 - The activity of the” Accel”, which engages in the import, distribution and integration of cutting edge communications products and services was merged into “Dolomite”. The deal involved the placement of 69% of the company’s shares. The valuation of the company, which came to US\$ 2 million on the eve of the placement, came to US\$ 86 million at the end of the year.
 - “Meat -Tech”, which develops 3-D printers for the production of meat products, merged with “Ophectra Real Estate”. The deal involved the placement of 64% of the company’s shares. The valuation of the company rose from US\$ 12 million on the eve of the placement to US\$ 86 million at the end of the year.
 - The activity of the “Aerodrome” which provides services to unmanned aerial systems was merged into “Apply”. The deal involved the placement of 69% of the company’s shares. The valuation of the company rose from US\$ 3 million on the eve of the placement to US\$ 87 million at the end of the year.
 - The activity of “Axilion”, an R&D company engaged in artificial intelligence for smart transportation systems, was merged into “Apio Africa”. The deal entailed the placement of 73% of the company’s shares. Valuation of the company rose from US\$ 46 million on the eve of the placement to US\$ 319 million at the end of the year.

Dual Listings**Three companies listed shares for trading on TASE within the framework of the dual listing provisions:**

- ❖ **Biomix** – a foreign company engaged in the development of therapies based on bacteria-infecting viruses, which trades on the New York Stock Exchange (ticker: PHGE), listed its shares for simultaneous trading on TASE in February. Valuation of the company on the eve of the dual listing came to US\$ 223 million, and its shares were added to the following indices: TA-SME60, TA Tech-Elite, TA Global Blue Tech, and TA-Biomed in April 2020.
- ❖ **Willi-Food International** – a company engaged in the import and marketing of food products, whose shares trade on NASDAQ (ticker: WILC), listed its shares for simultaneous trading on TASE in June. The market capitalization of the company on the eve of the dual-listing came to US\$ 194 million, and its shares were added to the TA-SME60 in August.
- ❖ The American company, **Arko Corp**, merged with Arko Holdings – a company traded on TASE and operates the GPM Company, which operates a chain of gas stations and convenience stores in the United States. Following the merger, its shares began trading both on NASDAQ (ticker: ARKO) and Tel Aviv in December, while the shares of “Arko Holdings” were delisted from TASE (the bonds of Arko Holdings continue to trade on TASE). The market capitalization of Arko Corp on the eve of listing came to US\$ 1.1 billion.

Three companies delisted their shares abroad and continue to trade solely on TASE:

- The shell company, **Internet Gold**– whose shares were delisted from NASDAQ in January for failure to meet maintenance requirements.
- The telecom company **B Communications**, whose shares were voluntarily delisted from NASDAQ in September.
- The shell company, **Matomy**, whose shares were delisted from the London Stock Exchange in November for failure to meet maintenance requirements.

Three companies delisted their shares solely from TASE, but continue to trade in the United States: the biomed company **RedHill Biopharma**; the technology company **Nano Dimension**; and the **Medley Capital**, a business development company (BDC) which engages in lending to middle-market companies.

Two additional dual listings announced intentions to delist their shares from TASE in January 2021 – the flavor and fragrance company **IFF** and technology company **Medigus**.

TASE-listed companies raised US\$ 2.2 billion abroad through public shares offerings and private placements, as opposed to the US\$ 0.8 billion raised in 2019. Among these, about US\$ **0.66 billion** were raised by the cleantech company **Ormat Technologies**, in public offerings in the United States. US\$ **0.51 billion** were raised by technology company **Liveperson** through the placement of non-marketable dollar-linked convertible bonds to institutional investors in Israel and abroad, while US\$ **0.20 billion** dollars were raised by the technology company **Nova** in a private placement of interest-free non-marketable convertible bonds to designated investors abroad.

The number of TASE-listed companies: At year’s end, the shares of **455** companies traded on TASE, as opposed to 442 at the end of 2019, of which 52 are dual listings.

The combined market capitalization (after-the-money) of the **27** companies that listed shares on TASE for the first time in 2020 plus the **3** dual listings came to US\$ **6.6 billion**. **17** companies delisted this year – whose total market capitalization on the eve of delisting was US\$ **2.2 billion**. The distribution of delisting firms according to the reason for delisting follows:

- **Five** companies with a combined market capitalization of US\$ **1,129 million** delisted as a result of corporate reorganization **which did not impact the group’s TASE coverage**, since these were executed through mergers and tender offers by other TASE-traded companies which continued to trade following the merger/tender. (The “Union Bank” was acquired by the “Mizrahi Tefahot Bank”, “Ashtrom Properties” was

acquired by the “Ashtrom Group”, “Medtechnica” was acquired by “Ilex Medical”, “Minrav Projects” was acquired by “Israel Canada” and “Sunny Electronics” was acquired by “Lapidoth Capital”).

- **One company** merged with an international company and its shares were listed under the dual listing provisions. “Arko Holdings”, which was merged into “Arko Corp” had a market capitalization of US\$ **641** million on the eve of the delisting.
- **One company** merged with an international company – “Exalenz” which merged with “Meridian”. The market value on the eve of the delisting came to US\$ **46** million.
- **Four companies** delisted as the result of **tender offers by controlling shareholders** (“MRP”, “Gabay Development”, “Internet Research Institute” and “Sapir Corp”). The combined market capitalization of these companies on the eve of their delisting came to US\$ **124** million.
- **Three dual listings companies** delisted from TASE: “RedHill”, “Nano Dimension” and “Medley Capital”. The combined market capitalization of these companies came to US\$ **236** million.
- **Two companies** were delisted after being listed on the “maintenance list” for four years – “Shemen Oil & Gas” and “Jerusalem Investments”. The total market capitalization of these companies on the eve of delisting was negligible.

Following the outbreak of the coronavirus and difficulties some companies faced regarding compliance with the maintenance rules, as well as difficulties companies already on the maintenance list encountered in taking the steps necessary to return to the main listings, TASE decided to adopt temporary orders twice this past year to postpone the date of vetting companies for maintenance rule compliance to July 2021.

Companies for which trading on the main listing was discontinued were granted under temporary order the postponement of delisting until 31 December 2021.

- **One company**, “Africa Israel” was delisted following a court settlement. Its market capitalization on the eve of the delisting was negligible.

Bond Market

Bond Market Indices

Bond trading was highly volatile this year, as was the case for the equity market and other markets the world.

Across-the-board gains were posted for all categories of government bonds:

- **Fixed rate non-linked shekel bonds rose 1.5% over the year**, echoing the volatility of the US treasuries market.

The yield-to-maturity on 10-year non-linked shekel bonds fell 1.0% at the beginning of the year to 0.6% on the eve of the March market crash, rising to 1.1% at the height of the crisis and retreating to a level of 0.8% at year’s end.

A similar pattern was observed for US 10-year treasuries – the yield to maturity dropped at the beginning of the year from 1.9% to a historic low of 0.5% on the eve of the March crash, spiked to 1.3% at the height of the crisis and receded to 0.9% at the end of the year.

- **CPI-linked government bonds gained 1.2%**. The main price spike of 0.8% in December, stemmed from optimism regarding the return of economic growth following the rollout of coronavirus vaccination programs.

The corporate bond market, in contrast, was plagued by falling prices for all bonds except **the bonds comprising the Tel Bond Shekel – Banking and Insurance index and the Tel Bond – Variable Interest index**, which rose by **2.5%** and **0.9%** respectively.

In addition to the factors mentioned in the section on the equity market, the bond market was influenced by a number of other factors as well:

- ❖ The lowering of the interest rate by the Fed twice in March by a cumulative 1.5% to a level of 0%-0.25% had a **positive impact on fixed-rate non-linked government bond prices**, as well as **on capital-raising activity on the bond market**. In April, the Bank of Israel lowered its interest rate by 0.15% to a historic low of 0.1%.
- ❖ **In addition, the purchase of government bonds and corporate bonds by the Bank of Israel as part of its stimulus program had a positive impact on bond prices.**
Government bond prices were also influenced by Israel's entry into the World Government Bond Index (WGBI) in April 2020 and by purchases made by foreign investors.
- ❖ The lowering of expected inflation rates – to a level below 0% in 2020, following the contraction of economic activity imposed by the coronavirus crisis - **had a negative impact on CPI-linked corporate bond prices and to an increase in the weight of debt raised in CPI-linked bonds relative to the total debt raised on the bond market this year.**
- ❖ The prices of **variable interest non-linked government bonds** remained unchanged, given projections that interest rates would remain unchanged, *inter alia* due to Fed announcements that interest rates will remain near zero until the end of 2023. Optimism in the market surrounding the rollout of the vaccination program in December contributed to a price upswing for **variable rate corporate bonds**.

Bond Market Trading Volume

Table 6: Average Daily Trading Volume in Bonds (in US\$ millions)

	2020	2019	% change in 2020
Government bonds	888	735	21%
Corporate bonds including ETFs	313	250	25%
Corporate bonds excluding ETFs *	270	223	21%
MAKAM (Central Bank T-Bills)	168	116	45%

* Including structure bonds.

Trading volume in the government bond market was up 21% in 2020 relative to the previous year. The average daily trading volume for **non-linked government bonds** came to **US\$ 612 million**, and for **CPI-linked government bonds** came to **US\$ 276 million**. It is worth noting that **on Thursday, March 12th**, amid plunging share prices at the height of the crash, **record trading activity was posted in the bond market**, coming to **US\$ 4 billion, of which US\$ 3.3 billion were in CPI-linked government bonds**. Open market purchases of government bonds by the Bank of Israel of **US\$ 13.4 billion** starting in March and purchases by foreign investors contributed to the relative surge in trading volume.

Data published by the Bank of Israel indicate that **foreign investors** sold a net **US\$ 0.5 billion** on TASE during the first quarter of 2020, following net sales of **US\$ 1.2 billion** in 2019. **Starting in April and through November 2020, foreign investors purchased government bonds on TASE amounting to US\$ 5.5 billion.**

These purchases were *inter alia* the direct result of the inclusion of Israeli government bonds in the WGBI in April 2020. This index is calculated by the FTSE Russell rating agency and tracks the government bonds of more than 20 countries. The index includes more than 1,000 bonds from the U.S., Japan, Germany, and other states. Israel is the 23rd country in the index and the first to enter the index since 2010.

The average daily trading volume of corporate bonds (including structures bonds and ETFs) came to US\$ 313 million in 2020, 21% greater than the 2019 average and similar to the record volume posted in 2015 in

terms of NIS. Uncertainty and high volatility as well as the purchase of corporate bonds by the Bank of Israel of US\$ 1.0 billion starting in July contribute to the rising trading volume.

Debt raised in the Bond Market

The Ministry of Finance's floatation of government bonds soared this year, as a result of the need to finance the more than US\$ 29 billion government assistance program set up to assist businesses and households hit by the coronavirus crisis and as a result of expectations that the deficit will increase from 3.7% in 2019 to 13% in 2020.

The total gross debt raised by the government in Israel and abroad came to US\$ **53.1** billion, as opposed to US\$ 23.1 billion in the previous year.

The gross debt raised by the government on TASE in **2020** came to US\$ **38.3** billion, as opposed to US\$ 19.5 billion in the previous year, **the largest sum raised in a given year for more than twenty years.** Starting in May, the floatations intensified, rising by an average US\$ 1.7 billion in each one of the months January-April, to US\$ 4.2 billion each month in the period May-November and totaling US\$ 2.2 billion in December.

79% of the total raised in government bond floatations this year was in non-linked bonds, as opposed to 82% in 2019; 21% was raised in CPI-linked bonds, as opposed to 18% in 2019.

The new series issued by the Ministry of Finances were offset by redemptions of about US\$ 13.7 billion in non-linked bonds and US\$ 4.4 billion in CPI-linked bonds.

In addition, the Ministry of Finance raised US\$ 14.8 billion abroad, as opposed to about US\$ 3.6 billion raised in the previous year. **US\$ 5** billion were raised in Israel's first government offering in Asia of dollar-linked bonds at 3.8% interest, and **US\$ 5** billion were raised in an offering with three dollar series to U.S., European and Asian investors, of which US\$ 1 billion were raised, for the first time ever, in 100-year (dollar-linked) bonds at 4.5% interest.

Debt raised on the corporate bond market in Israel (excluding offerings abroad, placements on the TASE UP institutional platform, and structured bonds) declined in 2020, totaling US\$ **15 billion**, as opposed to US\$ 19.3 billion and US\$ 14.9 billion in 2019 and 2018, respectively. **This decline can be attributed almost entirely to the lower activity of financial sector issuers.**

In contrast, debt raised by real sector issuers remained stable this year at a level of US\$ 11.5 billion – slightly higher than the amount raised the previous year, despite the coronavirus, and this resulting from the need to recycle marketable debt and the opportunity to take advantage of historically low interest rates.

The **redemption of marketable corporate bonds** (in both the real and financial sectors) came to US\$ **15.3** billion following redemptions of US\$ 12.1 and US\$ 9.5 billion in 2019 and 2018 respectively. The proceeds of the public bond offerings this year were used primarily to recycle their marketable debt (77%), and partially to finance unmarketable debt, ongoing operations and the expansion of business activity and facilities (23%). The increasing of redemptions this year are the result of large-scale bond offerings in earlier years. In contrast, **redemptions in 2021 are expected to decline to US\$ 14 billion,** the entire reduction emanating from the financial sector, which as aforementioned, sharply reduced the total debt raised.

Debt raised through corporate bonds in 2020 - key characteristics:

- **Sharp decline in debt raised by the financial sector**

The financial sector raised **US\$ 3.5** billion, accounting for 23% of the total raised on the corporate bond market, following US\$ 8.4 billion in 2019 and similar to the total raised in 2018.

The large banks which raised **US\$ 2.7 billion** in 2020 as opposed to **US\$ 6.3 billion** in the previous year, **contributed in large part to the sharp decline in the debt raised by the financial sector.** Influenced by the developing economic crisis, banks posted a sharp increase in credit losses in their financial statements and they pulled back lending activity. As a result, the Bank of Israel lowered capital adequacy requirements by one half of a percent, decided to lend money to banks at a negative interest of minus 0.1% against loans extended to businesses, and recently announced its intention to lift ceilings on the credit extended to the real estate and infrastructure industry from 24% of total bank credit to 26%. In addition, the scheduled reduction of credit extended to customers mandated under the “Strum Law” (designed to lower concentration of the banking industry) was postponed to 2021.

The most prominent issuer this year were **Leumi bank**, which raised **US\$ 690 million in the largest single public bond offering of the year.** **Bank Hapoalim** also raised **US\$ 690 billion**, but in a series of public offerings, of which **US\$ 300 million** were raised in contingent convertible (CoCo) bonds, which include a mechanism to write down the principal, while **US\$ 205 million** were raised in CoCo bonds which contain a conversion-to-equity mechanism. **Mizrahi Tefahot bank** raised **US\$ 620 million**, of which **US\$ 124 million** were in CoCo bonds which include a principal write-down mechanism. The offerings of all three banks were of CPI-linked bonds.

- **Stability in the scope of debt raised in the real sector – the public capital market demonstrated support in a time of crisis, while the banks withheld credit:**

The real sector raised **US\$ 11.5 billion** in 2020, accounting for 77% of the total raised through corporate bonds, similar to the 2018-2019 average. The redemption of marketable bonds in the real sector came to about **US\$ 9 billion** in 2020 and is expected to reach **US\$ 10.5 billion** in 2021.

- **Real Estate** continues to head the sectoral list of issuers, raising **US\$ 7.4 billion** in 2020, 49% of the total raised in the corporate bond market. The companies in this industry, which were hit severely during the coronavirus crisis, reduced the scope of debt raised slightly relative to the previous two years (**US\$ 7.3 billion** each year). These issuers redeemed marketable bonds worth **US\$ 2.5 billion** this year and are expected to redeem about **US\$ 3 billion** in 2021.

Among the issuers **a new company of TASE-listed bonds** – the construction company **Elad Residence**, which raised **US\$ 31 million** in an initial bond offering (non-linked bonds) on TASE. **In addition**, two construction companies – **Av-Gad** and **Rotem Shani** and an investment property real estate company **Hilla Offices** published supplementary prospectuses, according to which it is anticipated that they will raise a total of up to **US\$ 72 million** in initial non-linked bond offerings in the coming weeks.

Of the 50 issuers from the real estate industry, the investment property companies **Azrieli Group** and **Gav-Yam**, each raised **US\$ 0.5 billion** and **Amot** and **Gazit Globe** raised **US\$ 0.45 billion** each.

Foreign companies (primarily real estate companies) lowered the total debt raised on the TASE bond market this, the global economic crisis playing a part in the dampened activity. Foreign companies raised **US\$ 0.5 billion** this year as opposed to **US\$ 1.1** and **US\$ 1.8 billion** in 2019 and 2018 respectively.

- **The energy and oil and gas exploration** sector stood out as well with 10 companies, primarily energy companies, raising **US\$ 1.5 billion** – more than 2.5 times the amount raised by the industry in 2019. These companies redeemed marketable bonds of **US\$ 1 billion** and are expected to redeem **US\$ 1.3 billion** marketable bonds in 2021. The largest issuers were the energy companies **Paz Oil** and the government-owned **Israel Electric** which raised **US\$ 0.3 billion** each.

- **The weight of bonds rated A and above this year came to 94%** of the total raised in public bond offerings, similar to the ratio in 2019, and in contrast to 91% in 2018.
- **The weight of debt raised through CPI-linked bonds** relative to the total raised in public bond offerings rose for a third consecutive year to **64%** in 2020 as opposed to 52% and 45% in 2019 and 2018 respectively. A total of **US\$ 9.7 billion** was raised this year in inflation-pegged instruments.

The weight of the amount raised in non-linked bond offerings declined and accounted for **34%** this year as opposed to 47% in each one of the years 2018-2019. A total of **US\$ 5.1 billion** was raised. Almost the entire amount was raised in fixed rate bonds. Only **US\$ 41 million** of the total raised was through **commercial paper**, as opposed to **US\$ 375** and **US\$ 145 million** in 2019 and 2018 respectively.

Dollar linked bond offerings increased this year, raising **US\$ 0.2 billion**, three times the amount raised in 2019, and their weight relative to the total raised in public bond offerings came to **2%** in 2020 as opposed to 0.5% in 2019 and 8% in 2018.

- **US\$ 4.1 billion** were raised through the private placement of bonds to institutional investors on the **TASE UP institutional platform**, of which some **US\$ 3.3 billion** were raised abroad and **US\$ 0.8 billion** was raised in Tel Aviv. **In 2019, US\$ 1.1 billion** were raised through bond placements to institutional investors on the institutional platform, all of which were raised in Tel Aviv.

The most prominent placement on TASE UP in Tel Aviv was the **US\$ 0.4 billion** raised by **Ormat Technologies** in non-linked bonds. The prominent placements on TASE UP abroad include the **US\$ 2.25 billion** raised in an initial placement by **Leviathan Bond**, a special purpose company of the “Delek Drilling” oil and gas partnership, through four series of dollar-denominated bonds for foreign institutional investors and Israelis abroad, and the **US\$ 0.75 billion** placed by **Leumi** bank, part of which comprised a new series of dollar-linked CoCo bonds that were placed with foreign institutional investors in the United States.

ETFs and Mutual Funds

39 new Israeli ETFs were issued in 2020 valued at **US\$ 0.6 billion**. **9** of the new ETFs track local share indices, **24** track various foreign share indices and **6** track local bond indices. New funds listed by **Migdal** are among the ETFs debuted this year:

- The first ETFs on TASE that track the **TA- Investment Properties in Israel** index and the **TA-Construction** index – **two indices launched by TASE in February 2020**.
- The first ETF on TASE that tracks the **Index Bank-Insurance Bonds-Tier 2** index, which tracks CoCo bonds that include loss-absorbing mechanisms (either through conversion to equity or through write-down) and bonds that are considered to be Tier 2 capital that were issued by banks and insurance companies.
- The first ETF to track the **S&P500 ESG** index, which comprises constituents of the S&P 500 index that conform to designated environmental, social and governance standards .

Growth of the Israeli ETF market was offset, however, was offset by:

- **47** ETFs with a combined market capitalization of **US\$ 0.1 billion** were shut down and delisted.
- **20** ETFs with a combined market capitalization of **US\$ 0.2 billion** were converted to mutual funds.

Currently 531 ETFs trade on TASE, of which 358 track local and foreign share market indices and 173 track local and foreign bond market indices. The combined market capitalization of these funds came to **US\$ 28 billion** towards the end of 2020.

In addition, 13 foreign ETFs on foreign share market indices and **10** foreign ETFs on foreign bond market indices **are traded on TASE** (as well as on exchanges abroad) under the iShares brand name, listed by the international financial giant, BlackRock. The cumulative market capitalization of these ETFs on TASE came to **US\$ 277 million** at the end of 2020, **US\$ 210 million** greater than their market capitalization at the end of 2019. This increase in value can be primarily attributed to the **US\$ 160 million** foreign share market ETFs purchased by the Israeli public.

Table 7-A: Market Capitalization and purchases/sales of ETFs*
(in US\$ million)

	No. ETFs December 2020	Market Capitalization 31.12.2020	Market Capitalization 31.12.2019	Net purchases/ (sales) 2020
ETFs on TASE share market indices	81	8.2	7.4	0.7
ETFs on foreign share market indices	277	10.3	11.1	(2.4)
ETFs on bond market indices**	173	9.5	8.4	0.6
Total	531	28.0	26.9	-1.1

* Excluding foreign ETFs.

** Including ETFs on indices of TASE-traded government bonds and corporate bonds abroad, but primarily indices on corporate bonds in Israel.

In 2020 the market capitalization of Israeli ETFs increased by US \$1.1 billion:

- The market capitalization of **ETFs on foreign share market indices fell by US\$ 0.8 billion dollars. The decrease of US\$ 2.4 billion can be attributed to sales of ETFs by the public**, of which 0.7 and 0.3 US\$ billion derived from sales of ETFs tracking the S&P 500 and NASDAQ 100 indices respectively. These were partially offset by the appreciating value of the indices resulting from price gains in the underlying shares, which averaged 14% in 2020 as well as by the depreciation of the dollar relative to the NIS.
- The market capitalization of **ETFs on local share market indices increased by US\$ 0.8 billion**, while the lion's share of this increase **US\$ 0.7 billion** stems from purchases by the public (of which, **US\$ 0.4 billion** purchases of ETFs on the TA-Banks5 index).
- The market capitalization of **ETFs on bond market indices**, particularly TASE-traded corporate bonds, **increased by US\$ 1.2 billion**. The increase in the value of ETFs on TASE corporate bond indices of **US\$ 1.3 billion** was offset by a decrease of some **US\$ 0.16 billion** in ETFs on government bond indices and ETFs on foreign bond indices.

The increase in the market capitalization of ETFs on TASE corporate bond indices can be attributed primarily to purchases by the public of US\$ 0.9 billion.

Table 7-B: Mutual Fund Unit Creation/Redemption (in US\$ billion)

	2020	2019
Funds specializing in TASE-listed shares	-0.9	0.4
Funds specializing in TASE-listed bonds	-4.8	3.3
Shekel funds	-0.3	-0.4
Money market funds	-1.8	2.0
Funds investing in foreign markets	1.7	0.2

Influenced by the economic crisis and the credit crunch in Israel, the public liquidated substantial holdings in mutual funds investing in TASE-traded securities, most of the proceeds being channeled into current accounts, while some diverted to ETFs on local share and bonds indices and Funds investing in foreign markets.

The public sold funds replicating TASE share and bond indices of US\$ 5.7 billion, most of which, US\$ 4.8 billion were funds specializing in bond investments. The sale of bond funds reached a record level of about US\$ 7.2 billion in March.

In addition, the public liquidated **money market funds** of some **US\$ 1.8 billion** following the lowering of interest rates by central banks worldwide and in Israel to near-zero rates and expectations that these rates will remain unchanged over the coming year.

The proceeds from the mass liquidation of holdings in mutual funds this year **were diverted in small part to investments abroad** - The public purchased mutual funds investing in foreign markets for US\$ 1.7 billion, and **to investments** in the Israeli market - the public purchased Israeli ETFs on TASE share and bond indices for US\$ 1.6 billion. The mutual fund sell-off **contributed primarily to an increase in current bank account balances**. Data published by the Bank of Israel indicate that the public's current account balance increased by about US 34 billion, reaching a record level of US\$ 134.4 billion towards the end of the year.

Trading Volume Israeli ETFs

Table 8: Average Daily Trading Volume in the ETF Market (in US\$ million)

	2020	2019
Share market ETFs	114	62
<i>% of total shares trading volume</i>	<i>21%</i>	<i>17%</i>
Bond market ETFs	43	27
<i>% of total non-government bonds trading volume</i>	<i>14%</i>	<i>11%</i>

The high volatility and the sell-off of ETFs on foreign stock indices by the public contributed significantly to surge in ETF trading volume this year.

Derivatives Market

Trading on the derivatives market was highly active relative to the previous year, given the high volatility in the cash markets and uncertainty regarding the duration of the crisis.

The average daily trading volume for **monthly options on the TA-35 index** in 2020 came to **76** thousand contracts, 14% higher than the 2019 average. A similar trend marked trading in **TA-35 weekly options**, as on average **36** thousand contracts were traded daily, 21% higher than the 2019 average.

Increasing option market activity can be attributed to the high volatility of the share market, as reflected by the **VTA35 volatility index**. The index jumped from 12 points at the beginning of the year to a record 87 points on

12th March 2020, retreating amid recurring market fluctuations to a level of 19 points at the end of the year. **These fluctuations are similar to those of the S&P VIX index**, which leapt from 14 points at the beginning of the year to 83 points on March 16th. Ultimately, by the end of the year, the index settled at 23 points amid volatile trading during most of the year.

The daily trading volume of **NIS/dollar options** averaged **53** thousand contracts in 2020, 24% higher than the 2019 average. On 22.9.2020 a record volume of 544,365 dollar exchange rate option contracts were traded.

The increase in trading volume in NIS/dollar options can be attributed to the lowering of interest rates by the Fed in March and the open market dollar purchases made by the Bank of Israel, which culminated in historically record levels of the Bank's foreign currency balance (US\$ 173 billion dollars) at the end of the year. Following this, movements in the exchange rate of the dollar were highly volatile. The exchange rate jumped by some 12% from NIS 3.46 at the beginning of the year to NIS 3.86 on March 17th and later dropped precipitously to NIS 3.21 by 30 December 2020 – the lowest exchange rate in 24 years; and in wake of this, the Bank of Israel intensified its open market operations towards the end of the year.

Central Bank T- Bills (MAKAM)

The daily average turnover of MAKAM (in on-exchange and off-exchange transactions) amounted to **US\$ 168** million in 2020, 45% greater than the average in the previous year. Even after controlling for off-exchange transactions, **the daily volume of MAKAM in on-exchange transactions alone came to US\$ 117 million in 2020 – 44% higher than the 2019 daily volume.**

MAKAM prices remained unchanged in 2020 for the sixth consecutive year, and the yield-to-maturity fell slightly from 0.2% at the end of 2019, to 0% at the end of 2020.

In 2020 **both Israeli and abroad public holdings in of MAKAM** came to **US\$ 27** billion at the end of the year, as opposed to US\$ 34.7 and US\$ 28.3 billion at the end of 2019 and 2018 respectively. The decline this year, some US\$ 7.7 billion, stems from sales by the Israeli public.

Data published by the Bank of Israel indicate that **foreign investors purchased MAKAM on TASE** for a total of about **US\$ 1.8** billion in the months between January and November, following net purchases of US\$ 1.1 billion in 2019.

This Year More Than Ever – The Home of The Israeli Economy

In 2020, the global economy as well as Israel's was forced to deal with the outbreak of the coronavirus, which has precipitated an unprecedented economic crisis, dramatically different from what the world encountered in the past. Business activity in many countries across the globe, including Israel, was forced to stop on a dime, and we currently find ourselves in the midst of an economic crisis which has paralyzed many sectors and businesses - big and small. The uncertainty hovering over us all is reflected *inter alia* in the high volatility in securities trading both in Israel and abroad.

Throughout the entire period, from the moment the coronavirus first appeared and lockdowns were imposed, TASE, designated as an "essential enterprise", continued to operate uninterrupted in all operations. Trading,

clearing and settlement carried on as regularly scheduled, providing the government and Israeli companies a significant and highly important channel for raising capital to facilitate continuity in their ongoing operations.

The outbreak of the coronavirus and the general lockdown imposed on the Israeli public last March prompted the general public to deepen its knowledge and familiarity with the capital market, leading to the opening of a record number of some 21,700 new retail investor accounts on TASE. Over the year of 2020, a total of 141,000 new accounts have been opened, a 44% increase relative to the 98,000 new accounts recorded in 2019.

As home of the Israeli economy, TASE has chosen to introduce the possibility of raising a national emergency fund to assist small businesses through the issuance of Israeli government bonds. Consequently, TASE launched a dedicated campaign, “**#This Is Our Business!**”, featuring small business owners from various walks of life, whose lives and those of their employees have been changed by the crisis. This campaign joined another TASE campaign “Home of the Israeli Economy”, designed to encourage, support and bring hope to Israel’s capital market and economy, which are currently facing one of the most challenging periods ever encountered.

TASE Opens its Doors to Private High-Tech companies

TASE UP - Your Next Milestone

In August, TASE launched **TASE UP**, an innovative, first-of-its-kind trading platform on which privately-held high-tech companies, private equity funds, REITs specializing in overseas real estate investments and private credit funds, can enjoy access to institutional and accredited investors to raise capital as privately-held entities through exempt offerings, without having to comply with the prospectus and ongoing disclosure requirements, placed on publicly traded companies under Israel’s Securities Law. TASE UP creates a bridge between Israeli growth companies and thousands of potential investors and changes the way in which privately-held companies raise capital.

The new trading platform is open to a wide variety of companies and investors, which can enjoy the many advantages it offers, such as facilitating exposure to a larger pool of investors, diversifying financing channels, improving liquidity for shareholders in these companies, and more. The process is streamlined and innovative, and is exempt from both prospectus publication and regular reporting obligations.

Listing on TASE UP is suited to a variety of securities and capital structures: shares, convertible bonds, warrants, participation units and bonds. For the first time in Israel, **Investors who are eligible to trade on TASE UP** enjoy direct access to investment opportunities in privately-held companies through a platform based on the infrastructure underlying TASE's already-familiar trading and clearing systems. Investors also enjoy enhanced liquidity for their investment, clearing and execution of payments (as applicable to listed securities), as well as clear identification (ISIN) and display of the investor's holdings in their bank account. Foreign investors are exempt from the withholding of tax-at-source on interest payments.

The platform is open to institutional investors, corporations with equity in excess of NIS 50 million, investment advisors or portfolio managers engaged in both proprietary trading, and trading on behalf of third-party investors, venture capital funds and individuals considered accredited investors, under Israel's Securities Law. These represent thousands of potential investors.

As part of the launch of the new platform and its introduction to investors and to the local technology ecosystem, TASE initiated a digital campaign, which included, the launch of a dedicated website for companies and investors. Since August, TASE has received hundreds of enquiries and has met with more than 200 private companies considering listing on TASE-UP.

[For further information regarding TASE UP](#)

TASE's Technological Revolution

Over the past few years, TASE has invested considerable effort and resources in the creation of an advanced technological infrastructure to enhance market efficiency and increase its listed companies' accessibility to investors worldwide. This is in keeping with a global trend towards the digitization of financial services overall and capital markets in particular.

Central Securities Lending Platform

At the beginning of November 2020, TASE launched for the first time in Israel a central securities lending Platform based on Blockchain technology. This new platform aims at more effectively addressing investor needs in securities lending. The innovative system is the first of its kind, enabling capital market participants to directly engage in securities lending for a wide variety of key financial instruments.

Based on cutting-edge technology, this platform will transform securities lending in Israel by enabling direct lending across all major financial instruments. The central securities platform serves as a one-stop-shop for all securities lending activities, facilitating higher volume activity, which is executed more efficiently and expediently and covers a wider and more diverse range of timeframes, none of which can be carried out under the old system of decentralized lending.

The use of Blockchain Distributed Ledger Technology (DLT)) as the foundation of this new trading platform harnesses some of the technology's key advantages and features, such as: direct peer-to-peer transactions, smart contracts and record immutability. These advantages can benefit TASE custodians and their clients by reducing costs, injecting flexibility, upgrading efficiency and security and by enabling the market to realize its full potential.

Upon launch of the new system, securities lending between TASE members throughout the trading day has already increased and is expected to gain traction within the coming months.

[For more information on central securities lending](#)

Digital Service of Exercise of Employee Stock Options

In 2020, TASE launched a new dedicated click-through employee stock option exercise service. This service enables public companies with employee stock option plans to digitally, securely and easily exercise employee stock options. The service is provided by TASE's Nominee Company and is reserved for companies that are listed on TASE and registered with the TASE Nominee Company. The service provides a secure digital platform to exercise employee stock options without the need to draft and print documents, manually sign and deliver them by courier.

This innovative service streamlines and significantly shortens the duration of the process from the employee's initial submission of an exercise application to the transfer of the new shares to the employee's securities account. This new process was created in cooperation with Israel's leading trust firms and conforms with internationally accepted standards.

The TASE Nominee Company, which was established in the beginning of 2018, has been the first to introduce digital registration of publicly traded securities in Israel, which replaces physical certificates with “book-entry” securities.

[For more information on digital service of exercise of employee stock options](#)

TASE Data Hub – A Direct, Accessible and Agile Data System

Another new system launched this year is the **TASE Data Hub**, which provides direct access to market data and other information from TASE databases over a simple and agile interface. This system is part of TASE's strategic plan of aligning itself to the technological and data best practices adopted by leading securities exchanges throughout the world. The system's data products are made available over an API-based system and facilitate, among other things, the creation of insights into market developments, the formulation and analysis of trading and investment strategies, and the acquisition of tailored data for all market participants.

The **Smart Money Trends** product provides daily and historical data regarding the aggregate buying and selling activity of institutional investors and mutual funds in all TASE-listed securities. The target market for this product include hedge funds, proprietary traders, analysts, fintech companies, large traders and others, who can utilize its data to create sophisticated trading strategies and models.

Data packages also include a consolidated feed of all TASE and TASE companies announcements, aggregated data of all the relevant parameters for inclusion in TASE indices and their weighting, historical data updated daily regarding all securities transactions on TASE as well as off-exchange transactions, full end-of-day market data for all securities and TASE indices, and more. The extension of TASE's data product offerings and accessibility to this data through the new system, increases TASE's attractiveness to foreign investors.

Expansion of the system to include a wider range of data products and additional information is expected in the coming year, providing more extensive services to TASE's customers in Israel and abroad.

[For further details regarding TASE Data Hub](#)

TASE More Accessible to Foreign Investors

Launch of the Maya Website in English

This year, TASE launched its English Maya website, a move designed to make information about TASE and its listed companies more accessible to foreign investors, given the growing interest expressed by investors worldwide in Israeli companies and the Israeli economy.

The MAYA website, which serves as a principal website for investors active in the Israeli capital market, was initially launched in 2000. It is the site on which corporate filings, corporate action record and payment dates, public offering schedules, TASE announcements etc., are posted.

The Israel Securities Authority (ISA) encourages companies to publish their reports in both English and Hebrew, and recently, the Knesset Finance Committee approved a legislative amendment which will allow companies opting to do so, to publish reports solely in English.

In addition to the disclosures of companies choosing to file in English, the MAYA English website includes additional information for foreign investors, such as a corporate fact sheet for each listed company, record and payment dates of corporate actions for TASE-listed securities, a schedule of forthcoming offerings, projected dates for the release of financial reports, TASE memoranda regarding various subjects and more.

English corporate disclosures published by the company have been posted on the English Maya website starting on January 1st, 2020.

[For the Maya Website in English](#)

Payments in European Currencies

In January, TASE approved a new procedure, which enables companies traded in both Tel Aviv and Europe to remit corporate action payments in European currencies.

This initiative is part of TASE's strategy of expanding the services offered to companies cross-traded in Tel Aviv and Europe and standardizing payment procedures in both markets. This also allows global European corporations, for the first time, to issue debt on the Tel Aviv Stock Exchange in Israeli shekels and remit payments to bondholders in European currencies, something which was not possible prior to the TASE initiative.

This initiative which was undertaken in collaboration with Euroclear Bank, enable companies traded in Europe seeking dual listing on the Tel Aviv Stock Exchange, to pay corporate action proceeds to the holders of their securities in European currencies, such as the Euro and the GBP as well as in NIS. The arrangement pertains to payments only. The securities of these companies will continue to be traded on TASE solely in NIS.

Additionally, this move allows global European corporations to complete public offerings on TASE.

Cooperation Agreement between the Abu Dhabi Securities Exchange (ADX) and the Tel Aviv Stock Exchange (TASE)

In December, the Abu Dhabi Securities Exchange (ADX) and TASE signed a Memorandum of Understanding (MoU) for cooperation between the two exchanges, marking the first commercial relationship in Israel with a securities exchange from the Arab world.

The MoU signifies the opening channels of communication and is designed to consolidate cooperation between the two exchanges, which will contribute to the mutual growth of both the UAE's and Israel's capital markets.

The MoU was signed by the parties during a virtual signing ceremony. The MoU comes after the signing of the peace agreement between the two countries. This MoU is an important milestone in the UAE's efforts to broaden diplomatic and commercial cooperation with Israel, since it paves the way for developing mutual relations through encouraging economic growth and promoting technological innovation.

One of the main aims of the MoU between ADX and TASE is the exploration of possible avenues of cooperation, such as the cross-listing of securities on both exchanges, mutual trading between exchange members, investor access to both markets, the development of fintech and other financial market infrastructure technology and the sharing of data and other information for new product development.

The objectives guiding the parties to the agreement include the creation of easy access between the two capital markets and the development of markets deemed attractive to all key stakeholders, including listed companies, investors and agents, as well as information vendors and consumers.

[For additional information and a video of the MoU signing ceremony](#)

Sharing Professional Information with Capital Market Players

“Market Making” – Analysis and Insights During the Coronavirus Crisis for Investment Advisors

With the outbreak of the coronavirus crisis in March, TASE initiated a series of talks targeted at investment advisors and institutional investors, designed to deepen the knowledge and insights held by professional capital market players.

Within the framework of the “Market Making” discussion series, TASE hosted senior executives of leading companies, economists, research managers, analysts and assorted experts, who shared their professional insights

and personal perspectives regarding capital market developments in these challenging times. The talks were chaired by Yaniv Pagot, an expert in capital markets, and attracted avid interest, as evidenced by the hundreds of investment advisors participating in each session.

In total, close to 40 discussions were held over the past few months, in which more than 100 speakers and thousands of investment advisors took part.

TASE will continue these talks, as part of its quest to make information more directly accessible to market participants.

TASE Professional Blog

In March, TASE launched a professional blog targeted at investors, traders and individuals interested in the capital market, which incorporates diverse content and reliable professional information from TASE's professional staff and is updated on a regular basis.

The topics posted on the blog include a summary of market data, an analysis of major trends, sectoral reviews and information regarding new TASE products. The information already compiled on the blog is extensive, objective and based on proprietary data, which no other party in Israel possesses. TASE places great importance on sharing information to deepen the knowledge among market players. The blog is in Hebrew.

However, [the articles in English can be reached in TASE site](#).

New TASE Members

New Retail Broker – The First Digital Bank (in Set Up) Join as a TASE Member

In December, the First Digital Bank applied for TASE membership and TASE Clearing House membership. The bank received regulatory approval to operate as a digital bank in Israel a year earlier, in December 2019.

By becoming a TASE member, the First Digital Bank will be able to offer its clients the ability to transact on TASE, including the buying and selling of mutual funds and subscribing to public securities offerings over a convenient and user-friendly digital interface.

A New Type of TASE Member

TASE's First Nostro Member – Barak Capital

Barak Capital Investments 2006, Ltd. applied TASE as first Nostro Member. A Nostro Member is a member that engages solely in proprietary trading.

The company is part of the Barak Capital Group, whose core business is trading securities, derivatives and other financial instruments in Israel and abroad. Barak Capital has been a leading player in Israel's capital market since 2006, under the management of Mr. Eyal Bakshi.

The approval of Barak Capital's pioneering Nostro Membership was made possible following TASE's initiative to remove barriers and encourage new TASE memberships, including Nostro members, as is outlined in TASE's strategic plan to broaden the community of capital market players and enhance competition in the industry.

TASE UPDATES ITS TRADING SCHEDULE

TASE updated its trading schedule over the course of 2020, in order among other things, to better align trading hours with those governing trade on European exchanges.

Postponement of the Opening Auction to 10:00

As of February 2nd, 2020, the opening auction trading of stocks included in TASE indices starts at 10:00 rather than 9:45, as was the case prior to this date. The 15-minute postponement of the opening auction applies to TASE-traded shares included in the "Tamar" universe, equity index ETFs, units of TASE-traded foreign ETFs and units of closed-end mutual funds. This enables TASE to align with time trading opens on the major European stock exchanges. The opening auction for these securities will commence at a random time between **09:59 and 10:00**, every trading day. Accordingly, opening trading in derivatives is also be postponed by 15 minutes and now starts at 09:45. The opening of trading in stocks not included in the Tamar Universe as well as in convertible securities traded on the equity market remains unchanged and takes place at 10:15, every trading day.

Sunday Trading Day Shortened by 35 Minutes

As of March 8, 2020, trading on Sundays has been shortened by 35 minutes. Accordingly, securities trading on Sundays now closes at a random time **between 15:49 and 15:50**. Similarly, derivatives trading on Sundays also closes 35 minutes earlier, i.e. at **16:00**.

Pre-opening Trading Phase Shortened

As of May 3rd, 2020, the duration of the pre-opening trading phase has been shortened, such that this phase starts at 9:25 (rather than 9:00) on all trading days for all securities.

In addition, pursuant to changes in the starting time of pre-opening trading, the opening auction for the bond market, MAKAM and the TACT Institutional platform commences on each trading day at a random time between 9:55 and 9:56 (rather than 9:30 and 9:31).