

2018



ANNUAL REVIEW



TEL-AVIV STOCK EXCHANGE

MAIN INDICATORS 2016-2018

THE TEL-AVIV STOCK EXCHANGE			
LOCAL CURRENCY YIELD ⁽¹⁾	2018	2017	2016
TA-35 Index	-3.0%	2.7%	-3.8%
TA-90 Index	-3.0%	21.2%	17.3%
TA-SME60 Index	-23.0%	-6.9%	24.4%
TA Tech-Elite Index	-1.9%	3.6%	16.1%
TA-Finance Index	-0.3%	26.6%	19.2%
TA-Real Estate Index	-10.9%	23.4%	17.0%
General Share Index	-3.9%	-1.1%	-11.0%
General Bond Index	-1.5%	4.7%	2.1%
Government Non-Linked Bond Index	-1.2%	3.6%	1.2%
Corporate Bonds - Tel-Bond 20 Index	-1.1%	7.1%	2.9%
Corporate Bonds - Tel Bond-Yields Index	-4.6%	7.3%	6.2%
DAILY TURNOVER (US \$ millions)			
Shares and Convertibles (Including ETPs) ⁽²⁾	391	390	330
Bonds (Including ETPs) ⁽²⁾	1,025	1,011	979
Treasury Bills	120	60	90
TA-35 Index Monthly Options (Thousands of contracts)	100	100	121
TA-35 Index Weekly Options (Thousands of contracts)	34	31	40
Dollar Options (Thousands of contracts)	56	54	52
Capital Raised (US \$ billions) ⁽³⁾			
Shares and Convertibles in Tel-Aviv	1.9	3.4	1.8
Shares and Convertibles abroad ⁽⁴⁾	0.6	0.6	5.9
Corporate Bonds - Public ⁽⁵⁾	15.3	19.5	16.5
Corporate Bonds - Institutionals	3.8	1.4	1.0
Government Bonds - Gross	12.9	12.8	12.4
Market Capitalization (US \$ billions)			
Shares and Convertibles (Excluding ETPs)	187.6	231.0	213.9
Corporate Bonds (Excluding ETPs)	101.4	107.2	89.9
Government Bonds	129.1	141.9	129.7
ETPs Public Holdings (exchange-traded products)	23.2	32.9	29.0
Treasury Bills (MAKAM)	28.8	26.5	27.3
Number of Shares Listed Companies	448	457	451
MAJOR WORLD STOCK EXCHANGES' INDICES			
DOLLAR YIELD	2018	2017	2016
S&P 500 Index	-6.2%	19.4%	9.5%
NASDAQ 100 Index	-1.0%	31.5%	5.9%
DJ Euro STOXX 50 Index	-18.1%	21.3%	-3.3%
FTSE 100 Index	-17.1%	18.3%	-5.1%
DAX 30 Index	-21.9%	28.1%	3.3%
NIKKEI 225 Index	-9.9%	23.8%	3.4%
TA-35 Index	-10.3%	13.8%	-2.4%

(1) In 2018 the dollar has appreciated 8.1% against the NIS.

(2) In 2018 not including off-floor trading of exchange-traded products (ETPs) that were unusually large in scope due to the conversion of ETNs to ETFs under the reform implemented in the final quarter of the year.

(3) Excluding ETPs.

(4) In 2016 including US\$ 5.5 billion raised by TEVA through private placement to Allergan.

(5) Including structured bonds.

TASE BY THE NUMBERS 2018

14

New shares-listed companies

391

million dollars
daily turnover on TASE in equity market, similar to that of 2017

18.4

billion dollars
capital raised in corporate bonds (excluding structured bonds)

-3%

TA-35 Index
annual Shekel
yield

448

companies with share listings,
of which 57 dual-listing with
international exchanges

3.6

billion dollars
shares sold by
Principal Shareholders

5%

TA-Banks5 Index
annual Shekel
yield

115

High-tech companies
of which
72 technology
43 biomed

188

billion dollars
Market Capitalization
of Shares market

1.9

billion dollars
raised in the share market,
of which US\$ 0.5 billion in IPOs

18

billion dollars
Market Capitalization of 14 new
companies in the Shares market
(thereof: IFF – US\$ 14.2 billion)

146,057

TA-35 weekly options
daily turnover record
on february 6th, 2018

15.9

billion dollars
Market Capitalization of ETFs in
the shares market

714 → 610

714 ETNs became 610 ETFs
trading on TASE
with the completion of the reform
of the ETN market in the last
quarter of 2018

7.3

billion dollars
Market Capitalization of ETFs
in the bonds market

231

billion dollars
Market Capitalization of
government
and companies bonds

13

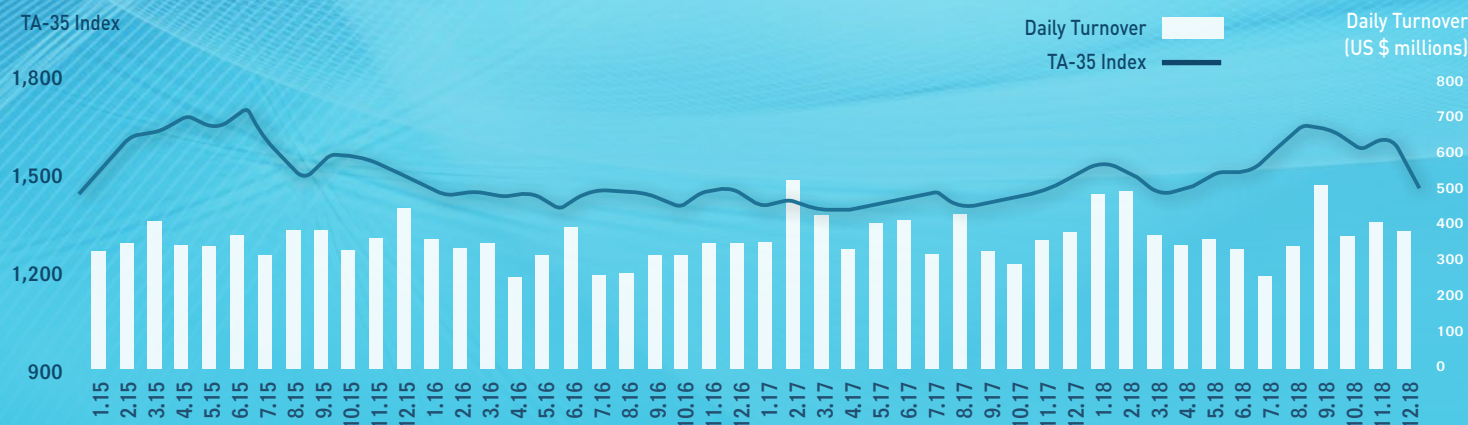
New bond-issuing companies
raised US \$2 billion

1

billion dollars
daily turnover on TASE
in bond market

TASE IN 2018

THE EQUITY MARKET PRICES AND TURNOVER, 2015-2018



High volatility marked trading on the Tel Aviv Stock Exchange, as it did in leading securities exchanges around the world;

In dollar terms, the TA-35 index lost 10% this year as opposed to average losses of 18% on European exchanges.

Cumulative gains from the beginning of the year were disseminated in December, turning into losses following a 9% drop in NASDAQ, which affected all leading exchanges worldwide, including TASE.

SHARE MARKET

Share Prices

The TA-35 share price index dropped 3% in 2018, after gaining 3% in 2017, affected by falling share prices on U.S. markets.

Trading on TASE was marked by high volatility, similar to that experienced throughout leading securities exchanges worldwide, which was influenced primarily by fluctuations in NASDAQ prices. The TA-35 index lost some 8% from the beginning of the year until the beginning of April, and later surged 20% until the beginning of September. At the same time the NASDAQ index climbed 17% from the beginning of the year. In the final trimester of the year, the TA-35 retreated 12%, most of the decline – around 10% - occurred in December, following the sharp drop in NASDAQ share prices. The NASDAQ plunged 18% during the third trimester of the year, 9% of which, in December, spurring sell-offs in the leading securities markets worldwide.

All the data in this review are stated in terms of U.S. dollars, excluding the returns on indices, which are stated in terms of the local currency, unless indicated otherwise. In 2018 the US dollar appreciated against NIS by 8.1%.

The upswing in the TA-35 index that terminated in the beginning of September can be primarily attributed to TASE/NASDAQ dual listings, notably **SodaStream**, which surged 113% following the company's acquisition by the food industry giant, "PepsiCo" in a mega deal valued at US\$ 3.2 billion, and to **Israel Chemicals (ICL)**, which climbed 57% and sparked a 84% increase in the share price of the parent company, **Israel Corporation** (also a TA-35 index constituent), following rising phosphate and potash prices.

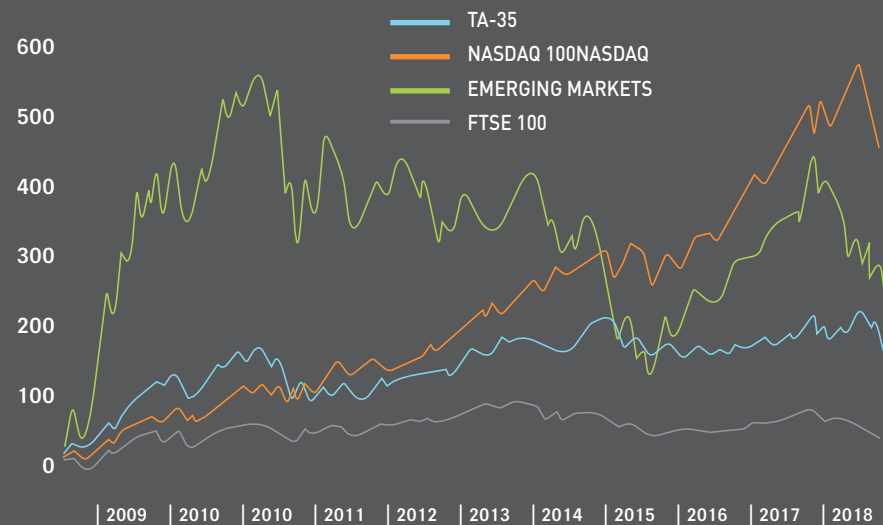
Pharmaceutical shares, notably **Perrigo** and **Opko** contributed significantly to the third trimester drop in prices plunging some 52% and 36%, respectively, and **Teva** which fell 11% during this period. The reform of TASE share price indices, which was launched on February 9, 2017, and which included a lowering of the weight caps imposed on an index's large constituents, mitigated the negative impact of these share prices on index returns.

The TA-35 index lost 10% in 2018 in U.S. dollar terms, as opposed to the S&P500, which ended the year with a more moderate 6% decline, and as opposed to average losses of 18% incurred on the leading European share price indices, including the DAX 30, which plummeted 22% over the year. In contrast, the NASDAQ 100 index finished the year only slightly off, losing 1%, in highly volatile trading.

The TA-90 index retreated 3% this year, following a 21% increase in 2017, while technology shares increased 2%, mitigating the impact of falling share prices in the commerce and real estate sectors, which fell 16% and 11%, respectively.

The TA-SME60 index and the TA-Growth index fell 23% and 16%, respectively, this year, following cumulative gains of 25% in the years 2014-2017.

TA-35 AND INTERNATIONAL INDICES, 11/2008-12/2018 (US \$ terms)



Source: Bloomberg

Key factors favorably affecting TASE trading trends:

- A historically low 0.1% interest rates, set by the Bank of Israel in March 2015 and persisting through November 2018, and this given a +0.8% inflation rate in 2018 – similar to the lower threshold of the inflation target set by the Israeli government. Low interest rates contributed to the improvement of corporate profitability particularly for financial sector companies.
- Favorable macroeconomic indicators:
 - Anticipated 3.2% GDP growth for 2018 – similar to that of 2017 (3.4%);
 - Growth of the Composite State-of-the-Economy index at a pace similar to that experienced in recent years (0.3% per month);
 - A persistently low rate of unemployment (4.1%) towards the end of the year, similar to the end-of- 2017 level, and after dipping to a historic low of 3.6% in March 2018.
 - Reduction in the debt-to-GDP ratio for eight consecutive to 60.9% in 2017 (close to the 60% threshold demanded of EU members). Following this, the international

In the five-year period between 2014 and 2018, the TA-Technology and TA-Banks5 indices were top performers, posting cumulative returns of 57% and 55%, respectively

Over the past five years, the TA-Real Estate index advanced 31%, a rate substantially higher than the increase in the apartment rental price index which came to 11% during the same period

credit rating agency, S&P, raised Israel's sovereign credit rating from (A+) positive outlook to **(AA-) stable outlook. This is the highest rating ever given to the State of Israel.** The international credit rating agency, Moody's, affirmed its A1 rating for Israel and upgraded its outlook from "stable" to "positive". Fitch affirmed its A+ "stable outlook" credit rating of Israel.

- Appreciation of the dollar and the euro against the NIS by 8% and 3%, respectively, which has a positive impact on the revenues of companies exporting to the U.S. and Europe. The appreciation of the dollar was affected by the increase in the Federal Reserve's interest rate and by Bank of Israel dollars purchases. In November, the Bank of Israel announced that it will curtail its dollar purchases in January 2019, and this sparked a hike in the exchange rate to NIS 3.75, the highest exchange rate in two years.
- In the international arena, the following factors contributed to trading trends: rising share prices on U.S. exchanges fueled by the improvement of the U.S. economy, as reflected in high growth rates (3.5%-4.2%), a fifty-year low unemployment rate (3.7%), relatively low inflation (2%), improvement of corporate profitability resulting from the reform of corporate taxation and trade restrictions imposed on Chinese imports. The bull rally continued until the beginning of September 2018.

Key factors negatively affecting share price indices in Israel:

- Near-zero interest rates in Israel as opposed to rising interest rates in the U.S.- increased expectations for an interest rate hike in Israel towards the end of the year contributed to the weakening of the Israeli real estate market. In November 2018 the interest rate

was indeed raised for the first time since May, 2011 by 0.15% to a level of 0.25% starting in December.

- Increase in the budgetary deficit – a deficit of 2.9% was budgeted in 2018 as opposed to the 1.9% deficit budgeted in 2017, while in effect a higher deficit of 3.4% is indicated for 2018. For the first time in four years, the actual deficit is expected to exceed the budgeted deficit, as an increase in government spending, primarily defense spending, coupled with a decrease in tax revenues, resulting from the lowering of corporate taxes from 24% in 2017 to 23% in 2018, contributed to the increase in the deficit this year.
- Intensification of tension on Israel's borders with the Gaza Strip and Syria.
- In the international arena: **Apprehension of an aggravated trade war between the U.S. and China** which may have a negative impact on Chinese growth as well as on world trade; **U.S. withdrawal from the Iranian nuclear framework agreement: the price of oil**, which rose 24% until the beginning of October, reaching US \$85 per barrel – a four-year high (still 44% lower than the record price set in 2008) – and then stabilized at US\$ 54 per barrel towards the end of the year; **the weakening of the European economy** (anticipated 2% annual growth in 2018 as opposed to 2.6% in the previous year, with a low 2% inflation rate – the minimum threshold).

In the third trimester of the year, interest rate hikes by the Federal Reserve, the 18% plunge of the NASDAQ, the release of "disappointing" third quarter 2018 earnings reports by several technology giants in the United States, the renewal of sanctions on Iran, and uncertainty regarding the U.K.'s "brexit" from the EU.

Sectoral share price index performance was mixed, as the TA-Banks5 and the TA-Oil & Gas indices gained 5% and 4%, respectively. Low interest rates contributed to the increase in the large banks index, while the signing of an agreement to export natural gas to Egypt from the Leviathan and Tamar gas fields, as well as the acquisition of rights in the EMG pipeline and rising natural gas prices contributed to the increase in the TA-Oil & Gas index.

The TA Tech-Elite index, which comprises the large technology and biomed companies, was off 2% this year, after advancing 23% since its launch in May 2014. This year's decline in the index can be attributed to the biomed firms, whose share prices plummeted 26% on average, mitigated by the 2% average gains in the technology shares.

In the five-year period between 2014 and 2018, the TA-Technology and TA-Banks5 indices were the top performers among TASE's sectoral indices, posting cumulative returns of 57% and 55%, respectively. Tailwinds from NASDAQ contributed to the advance of technology share prices, while low interest rates contributed to the continual surge in bank share prices.

The TA-Communications & Information Technology and TA-Real Estate indices lost 13% and 11%, respectively. **The decline of communications company shares this year** is a continuation of the 7% cumulative drop of the previous two years, 2016-2017, following the ongoing intensification of competition in this industry. **The decline of real estate share prices this year**, following a period of high cumulative returns of 47% during the 2014-2017 period, stemmed from a sharp decline in home sales and from expectations for higher interest rates, which were realized towards the end of the year. In addition, the shares of commercial real estate companies specializing in retail shopping malls posted negligible gains this year, following the strengthening of online commerce. It is worth noting that in the five years between 2014 and 2018, the TA-Real Estate index appreciated 31%, a rate significantly higher than the residential rental price index, which came to 11% in the same period.

TABLE 1: TASE Index Returns

	2018	December 2018	2017	2014 -2018
TA-35	-3%	-10%	3%	10%
TA-90	-3%	-7%	21%	18%
TA-SME60	-23%	-11%	-7%	-4%
TA-TechElite*	-2%	-8%	4%	21%
TA-Banks5	5%	-8%	24%	55%
TA-Real Estate	-11%	-6%	23%	31%
TA Global-BlueTech	-11%	-12%	-2%	-3%
TA-Technology	2%	-5%	14%	57%
TA-Biomed	-26%	-22%	-17%	-73%
TA-Oil & Gas	4%	-10%	-18%	-23%

This index was launched in May, 2014.

- Three new share price indices were launched in 2018:
 - **TA Sector-Balance index** (launched in February 2018) – includes the 100 shares with the highest market capitalization among the shares included in the TA-125 and TA-SME60 indices that are neither holding nor biomed companies. The index constituents reflect the widespread sectoral diversity of real, pharmaceutical and financial activity in Israel, 's economy. The market value of the index comes to US\$ 136 billion, and in May 2018, the two first ETNs were issued on this index. The market cap. of ETFs on the index came to US\$ 18 million. Since its launch, the index lost 4%.
 - **TA-Industrials index** (launched in April 2018) in conjunction with the Ministry of Economy and Industry - includes Israeli companies from the manufacturing and high-tech sectors. Currently, 79 companies comprise the index, valued at US\$ 68 billion. This index has slipped 5% since its launch.
 - **TA-Family index** (launched in October 2018) - includes family-run businesses meeting the criteria set by the Raya Strauss Center for Family Business Research at the Coller School of Management at Tel Aviv University, in conjunction with the Tel Aviv Stock Exchange. There are currently 27 companies in the index, with a combined market capitalization of US\$ 20 billion. The index has fallen 6% since its launch.

Equity Market Trading Turnover

TABLE 2: Average Daily Trading Volume* in the Equity Market (in US\$ millions)

	2018	2017	% change in 2018
Shares including index products	391	390	0%
Shares excluding index products	313	306	2%

* 2018 trading volume figures do not include off-floor block trading of index products that were unusually large in scope due to the conversion of ETNs to ETFs under the reform implemented in the final quarter of the year. In 2017, the scope of off-floor trading in index products was negligible.

The volume of equity trading for the year (on-floor and off-floor transactions, including share price index-tracking products) came to a daily average of **US\$ 391 million**, similar to that of 2017 and 18% higher than the average daily volume recorded in 2016 – the year preceding the reform of TASE share price indices.

Volume, like price movements, was highly volatile in 2018. **During the first two months of the year** daily trading volume averaged US\$ 500 million, 28% higher than the 2017 average volume. On February 1, 2018, on the eve of the semi-annual rebalancing of TASE's share price indices, turnover reached US\$ 1.3 billion - of which US\$ 0.8 billion in the closing auction. **Between March and August**, trading volume was relatively low, averaging US\$ 340 million daily, while starting in **September and through the end of the year**, active trading resumed, averaging US\$ 410 million per day.

Share Market Free Float

The sale of shares by principal shares accelerated in 2018, and in total these shareholders released holdings of some US\$ 3.6 billion dollars to the public, continuing the trend of equity sell-offs of US\$ 1.4 – 1.6 billion in each one of the previous two years. The sale of principal shareholdings over the past few years has led to a marked increase in the free float from 46% in 2014 to 57% (excluding Teva, Perrigo and IFF (International Flavors and Fragrances)

Average daily share (including Exchange Traded Products) trading volume came to US\$ 391 million, similar to the dollar volume of the previous year and 18% higher than that posted in 2016, which preceded the reform of TASE share price indices

Principal shareholders sold shares equaling US\$ 3.6 billion this year, bringing the free float to 57% as opposed to 46% in 2014

In the past two years, principal shareholder sales sparked by the reform of TASE share price indices, the final stage of which was implemented in February of this year, stood out. The sale of US\$ 1.1 billion of bank shares of stood out this year, including:

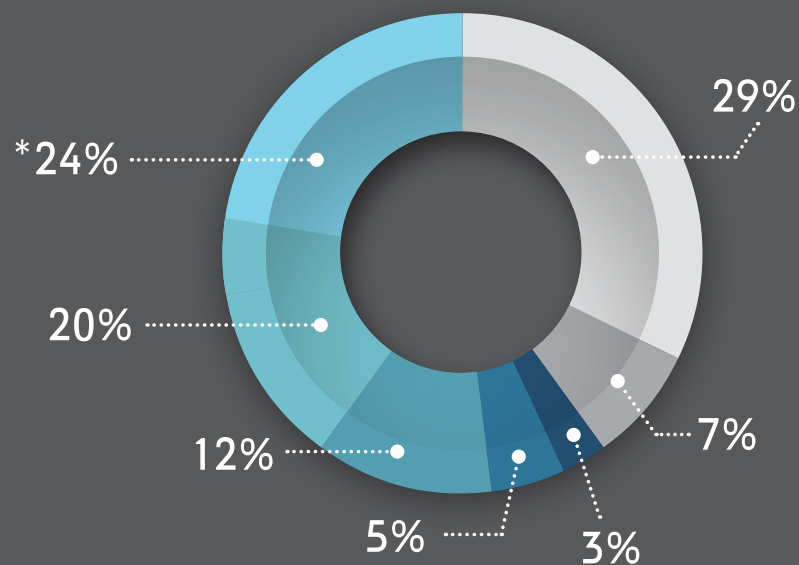
- The sale of the Israeli governments remaining holdings (6%) in **Bank Leumi** for US\$ 524 million. The government no longer holds bank shares acquired in the bank share arrangement undertaken 35 years ago.
- Shari Arison began selling controlling interest in **Bank Hapoalim** through the sale of a 4.3% interest for US\$ 384 million, and as a result, the bank no longer has nucleus of control.

In addition, the sale of US\$ 0.6 insurance company shares, within the framework of the mandatory separation of financial from real economy holdings under the "Anti-concentration Law", includes:

- The Delek Group sold a 16% interest in the insurance company **Phoenix** for US\$ 236 million, as part of its preparedness for the implementation of the "Anti-concentration Law" regarding the separation of corporate holdings in financial companies from holdings in companies operating in the real economy. The Delek Group currently holds a 30% interest in Delek and it plans to maintain its holdings in the energy industry. In addition, the Mayer Group sold holdings of US\$ 77 million in the insurance company **Phoenix**, following the sale of a similar amount in 2017.
- The I.D.B. Development Corporation sold 15% interest in **Clal Insurance** for US\$ 139 million, following the sale of a 10% interest in 2017 for US\$ 88 million. These sales are part of the framework agreement to sell I.D.B.'s control and holdings formulated by the Commissioner of the Capital Market, Insurance and Savings at the Ministry of Finance. In addition, Bank Hapoalim sold its remaining (9.5%) interest in the **Clal Insurance** for US\$ 91 million.

Between January and November, 2018 foreign investment in TASE-traded shares increased, as foreign investors acquired a net US\$ 3 billion shares, following net acquisitions of US\$ 1.5 billion in 2017 and net sales of US\$ 0.4 billion in 2016.

BREAKDOWN OF SHARE OWNERSHIP ON TASE, 2018¹



"Free Float" (64%)

- International Public & Institutionals (24%*)
- Israeli Public (20%)
- Provident & Pension Funds (12%)
- Insurance Companies (5%)
- Mutual Funds (3%)

Interested Parties (36%)

- Israeli (29%)
- International (7%)

* Thereof: 15% holdings in dual-listed shares abroad.
Source: TASE & The Bank of Israel.

(1) Not including IFF shares

Equity Capital Raising

TABLE 3: Equity Raised on TASE

	Capital Raised (in US\$ millions)			No. of Offerings		
	2018	2017	2016	2018	2017	2016
Public offerings	1,028	2,351	1,191	64	92	82
of which IPOs	517	840	68	11	17	3
Private placements	580	764	391	74	105	73
Warrant exercise	250	292	222	-	-	-
Total	1,858	3,407	1,804	138	197	155

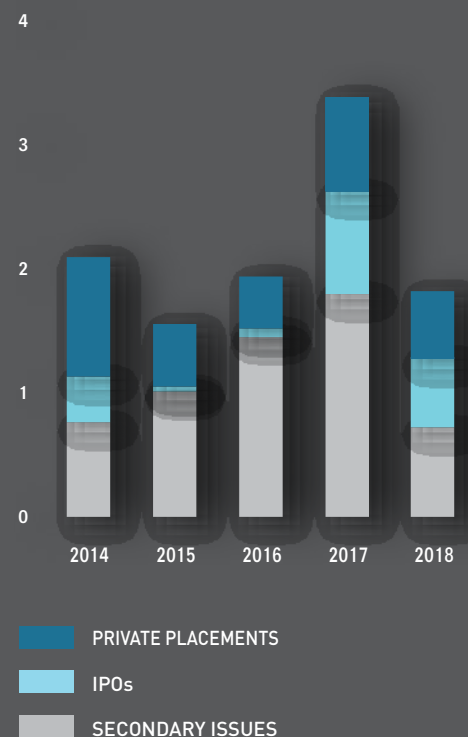
Equity raised on TASE in 2018 came to US\$ 1.9 billion, following the US\$ 2.4 and US\$ 1.2 billion raised in 2017 and 2016, respectively. Some US\$ 0.6 billion of the annual total was raised in the first quarter of the year.

Three successive U.S. interest rate hikes by the Federal Reserve, which strengthened expectations for similar rate hikes in Israel, contributed to **weakening primary market activity starting in the second quarter of the year.**

The value of public offering in 2018 came to US\$ 1 billion – half of which was raised in 11 initial public offerings (IPOs). The wave of IPOs, which started in 2017 and in which 17 new companies listed shares on TASE, continued throughout the first half of 2018 – in which 8 new companies were added to TASE. During the second half of 2018, weakness in the secondary market carried over to the IPO market as well, and only three IPOs were completed in this period. This year's wave of new offerings can be summarized as follows:

- Distribution of firms in terms areas of business activity – 4 commerce and service companies, one technology company, one company and one joint partnership of oil and gas exploration, a high-tech closed-end fund (first listed on TASE), one real estate company, an energy company and one manufacturer company.
- Distribution of companies in terms of market capitalization – a large-cap company valued at US\$ 1.3 billion (**Fattal Holdings**), 4 mid-cap companies valued at US\$ 110-180 million, 4 companies valued at US\$ 40-80 million and two small cap companies valued at less than US\$ 25 million each.
- IPOs which incorporated the sale of shares held by existing controlling shareholders raised US\$ 0.1 billion for the controlling shareholders of the **Globrands**, **Adika Style**, and **G1**.

CAPITAL RAISED BY SHARES, 2014-2018
(US \$ billions)



Foreign investment in TASE-shares market increased with net acquisitions of US\$ 3 billion, following net acquisitions of US\$ 1.5 billion in 2017

A total of US\$ 1.9 billion was raised in the shares market, of which US\$ 1 billion from public offerings

The wave of IPOs which began in 2017 continued throughout the first half of 2018, with 11 companies completing IPOs, raising a total of US\$ 0.5 billion, and 3 companies dual-listing on TASE. The largest public offering was that of Fattal Holdings which is valued at US\$ 1.3 billion following the offering

TABLE 4: New Listings – area of business, capital raised, and post-IPO value

Company	Business	Capital Raised (in US\$ millions)	Post-IPO value (in US\$ millions)
Fattal Holdings	Holding, managing and operating hotels in Israel and Europe	145	1,267
Globrands	Distribution of tobacco and confectionary products	67	180
Clal Beverages	Holding company of Jafora – soft drink production and distribution	64	139
G-1	Security and protection service provider	40	119
I.B.I. Tech Fund	High-tech fund	113	113
Rani Zim	Shopping centers	17	76
Delek Royalties	Holds rights to super royalties from the “Tamar” and “Dalit” natural gas projects	37	61
Adika Style	Online fashion retailing	14	50
G.P. Global	Energy & infrastructure	9	41
Internet Research Institute	Operates in information, Internet and cyber-security in Japan	5	22
Rotem Energy Mineral (REM)	Limited partnership for oil shale exploitation	6	8

The commerce and services sector stood out in 2018, raising US\$ 0.5 billion, which accounts for 29% of the total raised in equity public offerings and private placements.

The offerings completed by the following companies are noteworthy:

- Commerce and services company, **Fattal Holdings** - a hotel group operating in Israel and Europe, which raised US\$ 145 million in an IPO. Capitalization following the IPO came to US\$ 1.3 billion, making the company **the largest company raising equity on TASE in 8 years.**

- **I.B.I. Tech Fund**, a closed-end mutual fund that raised US\$ 113 million in an IPO. The fund’s composition – at least 70% will be invested in Israeli R&D companies from two main groups:

1. Privately owned companies – securities issued by Israeli R&D companies that have not been listed for trading on an exchange. At least 30% and no more than 50% of the fund’s asset value on the day it was established will be invested in privately owned companies.
2. Traded companies – traded assets/ securities, primarily shares of listed technology companies and low-risk assets.

This mutual fund is the first to enable institutional investors and the public to invest in a basket of high-tech companies, which include private Israeli companies.

The fund is eligible for support by the Ministry of Finance – In the event that within three years of the fund's TASE listing, the fund invests at least 30% of its asset value on the day it is established in R&D companies, it can apply for credit from the Ministry of Finance backed by government guarantees, up to a set ceiling.

- Real estate company, **Amot** and telecom company, **Cellcom** – which raised US\$ **92** and US\$ **78** million in public offerings, respectively.

The total raised in **private placements** in 2018 came to US\$ **0.6** billion. The largest private placement was implemented by the fashion company, **Castro** – which placed 35% of its equity worth US\$ 100 million with the founders of the "Hoodies Group", in exchange for the latter's entire holdings in the Group.

Reverse mergers

Six companies went public by completing reverse mergers this year.

- The activity of "Electric Road" was merged with the shell company, "Biomedix" and its name was changed to "Electreon Wireless". The company is engaged in R&D developing technology for wireless propulsion of electric vehicles through a system of coils placed under roadways. Under the terms of the transaction, 72% of the company's shares valued at US\$ 25 million were placed. The company's valuation

increased from US\$ 16 million on the eve of the placement to US\$ 41 million at year's end.

- Five companies engaged in the medical cannabis industry:
 - The activity of "Globus Pharma" was merged with the "Together" company and its name was changed to "Together Pharma". In this transaction, 72% of the company's shares were placed for US\$ 38 million. The company's valuation increased from US\$ 38 million on the eve of the placement to US\$ 64 million at the end of the year.
 - The activity of "Cannbit" merged into "Capital Holdings" and its name was changed to "Cannbit". In the transaction, 82% of the company's shares were allocated in exchange for US\$ 19 million. The company's valuation has shot up from US\$ 2 million on the eve of the allocation to US\$ 14 million at year's end.
 - The activity of "CannAssure" was merged into "Direct Capital" and its name was changed to "CannAssure". In the transaction 74% of the company's shares were placed for US\$ 18 million. The company's value rose from US\$ 6 million on the eve of the placement to US\$ 25 million at the end of the year.
 - The activity of "UNV" was merged into "D-Pharm" and its name was changed to "Univo". In the transaction, 43% of the company's shares were placed for US\$ 33 million. The company's valuation increased from US\$ 26 million on the eve of the placement to US\$ 34 million at the end of the year.
 - The activity of "Cannomed" was merged into "Proteologics". In the transaction, 70% of

the shares were placed for US\$ 3 million. The company's valuation increased from US\$ 3 million on the eve of the placement to US\$ 7 million at year's end.

- Another medical cannabis company "Cannodoc" merged with **Intercure**, an investment company specializing in biomed and life sciences companies. The company's valuation increased from US\$ 50 million on the eve of the transaction to US\$ 112 million at the end of the year.

The government liquidated its holdings in Bank Leumi and in Israel Military Industries:

In 2018, following a six-year hiatus, the government resumed the reduction of its corporate holdings, raising US\$ **1** billion.

- **US\$ 0.5** billion was raised in the sale of its remaining interest (5.5%) in **Bank Leumi** shares.
- **US\$ 0.5** billion was raised in the sell-off of the government's entire stake in the **Israel Military Industries to Elbit Systems** - TASE traded company.

Dual Listings

Two companies already listed on the NYSE dually listed on TASE in 2018

- **Medley Capital** – a U.S. business development company engaged in extending credit to mid-market enterprises, listed its shares for trading on TASE as well, starting in January 2018. The dual listing was completed in advance of the company's first bond public offering on TASE, which raised US\$ 121 million. The company's market capitalization is valued at US\$ 177 million.



- **IFF** (International Flavors & Fragrances) – is a manufacturer of flavors and fragrances for the U.S. food and cosmetics industries, which acquired “Frutarom” in a mega US\$ 6.4 billion transaction. The company’s shares were listed for trading on TASE in October, and Frutarom was delisted from TASE as a result. IFF’s market capitalization comes to approximately US\$ **14 billion**, and its shares were fast-tracked on to the TA-35 in December, 2018.

A company listed on the London Stock Exchange dually listed on TASE in 2018

Energean – a foreign oil and gas exploration company traded on the London Stock Exchange’s Premium Listings, which has holdings in, among other things, the Karish and Tanin oil fields off the Israeli coast, listed its shares on TASE at the end of October. The company is valued at US\$ **1.3 billion**.

Technology company, **Safe-T**, whose shares were listed on TASE in 2000, raised US\$ **7 million** in a U.S. IPO and its shares began trading concurrently on NASDAQ starting in August.

- **Two companies** were delisted from both NASDAQ and TASE following mergers with large international enterprises- the acquisition of **SodaStream** by “PepsiCo” and the acquisition of **Mazor Robotics** by Meditronic.
- **F.C. Global Reality** was delisted from NASDAQ and its shares were transferred to the OTC trading platform.
- Five biomed dual listings delisted their shares from TASE, but continue to trade on NASDAQ:

BiondVax, Mylan, Therapix, Intec Pharma and **CollPlant**, which listed on NASDAQ in January of this year. Another company, **Navidea**, announced its delisting from TASE scheduled for the beginning of 2019.

Currently **55** dual listings trade on both TASE and exchanges in either the U.S. or London, while **2** other companies trade on TASE and on exchanges abroad, outside of the dual listing framework.

This year, the **dual listing provisions** of Israel’s Securities Law were extended to companies listed on the primary listings of the Singapore, Hong Kong and Toronto stock exchanges. **In May 2018**, the Singapore Stock Exchange (SGX) and the Tel Aviv Stock Exchange (TASE) entered into a cooperation agreement, in which, for the first time, Israeli technology companies would be able to simultaneously raise capital on the two markets and dually list their shares. Both exchanges will work together to identify leading technology and biomed companies seeking to raise capital to enable them to grow and develop their companies in Asian and world

markets and to shepherd these companies through the capital-raising, IPO and dual listing process. This activity includes providing assistance to privately owned companies in the stage preceding the IPO and listing, throughout the IPO process and rendering support to issuers following the listing by leveraging the respective exchanges’ familiarity with the market and the various systems at their disposal.

TASE-listed companies raised US\$ 0.6 billion equity abroad through public offerings and private placements, similar to the amount raised in 2017. US\$ 0.3 billion of this total was raised in two private placements:

- Oil and gas company, **Tamar Petroleum** allocated US\$ **221 million** to “Noble Energy” as part of the proceeds from acquisition of 7.5% interest in the rights to the “Tamar” and “Dalit” reserves.
- **Blockchain Mining** allocated shares valued at US\$ **132 million** to the owners of “Backbone”– a Canadian company in exchange for the acquisition of 61% of its shares.

Number of TASE-listed Companies

At the end of the year **448** companies traded on TASE as opposed to 457 companies at the end of 2017. Over the past year, there were **14** new listings (**11** IPOs and **3** dual listings), while **23** companies delisted from the exchange. The distribution of delisted companies and reasons for their delisting can be summarized as follows:

- **3 companies merged with international companies - SodaStream** with "PepsiCo", **Mazor Robotics** with "Medtronic" and **Frutarom** with **IFF**, which subsequently listed for concurrent trading on TASE.
- **4 companies** delisted as part of a tender offers by controlling shareholders.
- **4 companies delisted within the framework of corporate restructuring.**
- **4** Israeli biomed **dual listings** delisted solely from TASE: "BiondVax", "Therapix", "Intec Pharma" and "CollPlant". **One company**, not linked to Israel, "Mylan" delisted as well.
- **8 companies** were delisted after four years on the maintenance list.

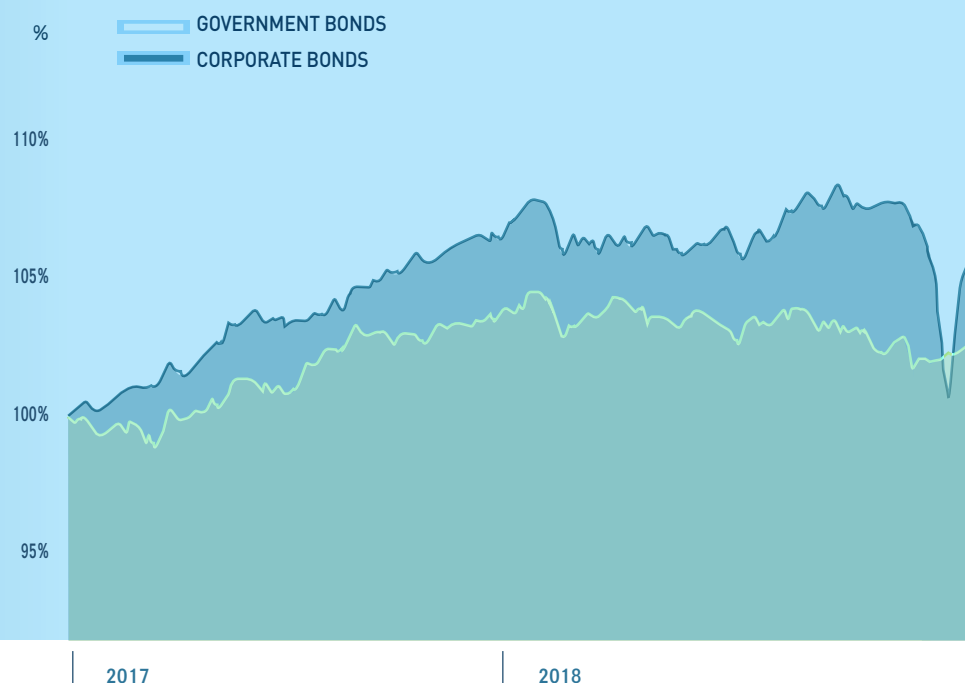
TABLE 5: MAIN INDICATORS OF THE EQUITY MARKET, 2009-2018

Year	Daily Turnover (US \$ millions)	Capital Raised in Tel-Aviv ⁽¹⁾ (US \$ billions)	Number of Listed Companies ⁽²⁾	Thereof: New Listed Companies ⁽²⁾	TA-125 Index % Change (local currency terms)
2009	432	1.7	604	4	88.8
2010	547	3.4	600	22	14.9
2011	482	1.4	580	11	-20.1
2012	279	0.9	540	3	7.2
2013	324	1.7	508	6	15.1
2014	339	2.1	473	6	6.7
2015	373	1.4	461	11	2.0
2016	330	1.8	451	8	-2.5
2017	390	3.4	457	20	6.4
2018	391	1.9	448	14	-2.3

(1) Including private placements and exercise of warrants. Excluding issues abroad of the dual-listed companies.

(2) Including dual-listed companies. Excluding ETPs issuers.

GOVERNMENT AND CORPORATE BONDS INDICES, 2017-2018
(Israeli Shekel terms)



Trading on the bond market – government and corporate – was marked by high price volatility. At year’s end, non-linked variable rate bonds posted modest gains, following expectations of interest rate hikes, and fixed-rate non-linked bonds posted losses, following the interest rate hikes implemented in the U.S. and the spike in U.S. government bond yields;

Corporate bond trading was active for a second year running

BOND MARKET

Bond Price Indices

Corporate and government bond trading was also highly volatile this year, like the share market, as CPI-linked bonds and non-linked variable interest rate bonds gained 1.8% and 1%, respectively, until the third trimester, while non-linked fixed-interest rate bonds declined 1.5%; and in the final trimester of the year, prices began to decline for variable interest rate bonds as well.

To summarize 2018, most bond indices ended the year on a downward trend:

- **Variable rate non-linked bonds – corporate and government** – posted moderate gains of 0.8% and 0.4%, respectively.
- **CPI- linked bonds – corporate and government** – posted price declines of 1.4%. The Tel Bond linked-Banks and Tel Bond linked – Real Estate, which were launched in February of this year, posted a negligible decline of 0.5%.
- **Fixed-rate non-linked bonds – corporate and government** – slid 4.3% and 1.5%, respectively, while the **Tel Bond- Yield NIS** index, which comprises non-linked fixed-rate corporate bonds rated by the local credit agencies, "Maalot", at between (BBB-) and (A) and "Midroog" at between (Baa3) and (A2), fell 10%.

The **Tel Bond Global index**, which includes 36 bonds of foreign real estate companies, stood out for its negative return, which came to 13% this year, after gaining 6% in 2017, the year the index was launched. The sharp decline of this index stems from negative announcements by some of the companies regarding potential insolvency, or an inability to meet principal and interest payments and growing apprehensions in the market regarding questionable corporate governance at some of these companies.

Bond trading was also marked by volatility and was differentially affected by a number of factors:

- The increase in inflation – to 1% in 2018, roughly the bottom threshold of the government’s inflation target, after four consecutive years in which inflation was lower - had a **positive impact on CPI-linked corporate** bond prices until the final trimester of the year.
- Expectations for interest rate hikes in Israel had a **positive impact on non-linked variable rate bonds**.
- Throughout the entire year, the four quarter-percent interest rate hikes initiated in the United States by the Federal Reserve, which raised interest rates to 2.5% at the end of the year, had a negative impact on the non-linked fixed-interest bond indices, and ultimately, in the third trimester of the year, on the other bonds as well. The yield-to-maturity of 10-year U.S. treasury bonds surged to more than 3% by November, the highest yield in four years, retreating in December to around 2.7%, 0.8% higher than the yield on non-linked 10-year Israeli government bonds. In November, the Chairman of the Federal Reserve announced that the benchmark interest rate in the U.S. is close to the “neutral rate”, signaling that the Fed may consider discontinuing further rate hikes.

New bond price indices – TASE launched **seven** new Tel Bond indices in 2018.

Four of these indices are based on index-linkage or credit rating, **two** are sectoral (Tel Bond Shekel Bank & Insurance and Tel Bond CPI-linked Real Estate) and the Tel Bond-Dollar **index**.

TASE currently calculates **29** Tel Bond indices, which enable investors to **select between various sectors, types of value linkage, levels of credit risk and duration of the corporate bonds they hold in their portfolios**.

On January 1, 2019, TASE will launch a new government bond index - **CPI-linked Government Bonds 15+**. This index is designed for investors preferring low-risk investments, who anticipate growing inflation, as well as investors pursuing exposure to long-duration instruments.

Bond Trading Volume

Table 6: Average Daily Bond Market Trading Volume* (in US \$ millions)

	2018	2017	% change in 2018
Government bonds	736	726	1%
Corporate bonds (including ETPs)	289	285	1%
Corporate bonds excluding ETPs	251	248	1%
MAKAM T-bills	120	60	100%

* Trading volume figures for 2018 do not include off-floor transaction in exchange-traded products (ETPs), which were unusually high, given the reform to convert ETNs to ETFs that was implemented in the final quarter of the year.

In 2018, **the trading volume for corporate bonds (excluding ETPs) averaged US\$ 251 million per day - a record high, similar to that of the previous year**. This follows three consecutive years of trading volume growth. On 17 May 2018, on the eve of the semiannual rebalancing of TASE’s Tel Bond indices, **total bond market volume came to US\$ 2 billion** - of which **US\$ 1.3 billion** can be attributed to the corporate bond market.

Trading activity in non-linked government bonds picked up this year, while in contrast the trading volume of CPI-linked government bonds declined:

- Average daily turnover in non-linked government bonds came to **US\$ 505 million** in 2018, 9% higher than in 2017. The sell-off of these bonds by foreign investors (see below) contributed to the increase in activity.
- Average daily turnover of CPI-linked government bonds came to **US\$ 231 million** in 2018, 12% lower than that of 2017.

Foreign investors sold a net US\$ 1.2 billion of government bonds during the January-May 2018 period, and acquired US\$ 2.6 billion in the June-November period; and this following the acquisition of a net US\$ 0.4 billion the previous year. Foreign investor activity was affected by the fluctuation of the NIS/\$ exchange rates and by the disparity between U.S and Israeli 10-year government bond yields – 2.7% in the U.S. as opposed to 1.9% in Israel.

Debt Raising on the TASE Bond Market

Gross government proceeds from the floating of government bonds in 2018 came to US\$ 12.9 billion, similar to the amount issued in 2017. This year, approximately 78% of the total was raised through non-linked bonds, as opposed to 71% in 2017, while 22% through CPI-linked bonds as opposed to 29% in 2017.

This year's government issues were accompanied by redemptions of some US\$ 9.8 billion non-linked bonds and US\$ 4.2 billion CPI-linked bonds.

In addition, the Ministry of Finance completed a sovereign **bond offering in London**, raising **US\$ 2 billion** as opposed to the US\$ 2.4 billion raised in the previous year. This was raised through two sovereign dollar bond series. **US\$ 1 billion** was raised in a 10-year bearing 3.25% interest bond, and **US\$ 1 billion** was raised in 30-year bond series bearing 4.125% interest.

The total gross debt raised by the government in both Israel and abroad came to US \$14.9 billion, as opposed to US \$15.2 billion in the previous year, and this despite the anticipated increase of the budgetary deficit. There was a marked increase in government expenditures this year along with a reduction in tax revenues, which led to an increase in the projected government deficit to some 3.4% for the calendar year ending in October 2018, as opposed to the 2018 2.9% budgetary deficit and the actual 1.9% in 2017. **This year, for the first time in four years, the actual deficit may exceed the budgetary deficit.**

Total debt raised on the TASE **corporate bond** market came to **US\$ 18.4 billion** (including debt raised abroad and excluding structured bonds), following a total of US\$ 20 billion raised in the previous year. The reduction in the scope of debt financing this year, after five consecutive years of growth, can be attributed to rising expectations of an interest rate hike in Israel and to the curtailment of public debt offerings by foreign real estate companies in wake of liquidity problems and apprehensions regarding the failure of some companies to comply with corporate governance standards.

This year, as well, corporate bond issues were undertaken in part to recycle debt (roughly 80%) and in part to finance the expansion of corporate activity (20%). In the first half of the year, total debt raised came to US\$ 11.6 billion, similar to the amount raised in the first half of 2017, **while in the second half of 2018, debt raising slowed down, given the rising yields-to-maturity for government bonds, paralleling trends in the United States**, which led to a reduction in the spread between yields on corporate bonds vs. government bonds, **and accompanying huge redemptions of units in mutual funds specializing in bond investments.**

The redemption of traded corporate bonds this year came to US\$ 9.5 billion, following redemptions of US\$ 12 billion and US\$ 10 billion in 2017 and 2016, respectively. The redemption of US\$ 11 billion corporate bonds is anticipated for 2019.

US\$ 18.4 billion was raised through bonds offerings to public and to institutional investors, and an additional US\$ 0.7 billion was raised through structured bonds

13 new bond issuers raised US\$ 2 billion debt in public bond offerings, including two government companies – “Israel Ports” and “Amidar”

TABLE 6: Non-government Bond Issues by Sector 2016-2018
(in US\$ millions)

	2018		2017		2016	
Corporate bonds*	17,149	100%	19,555	100%	17,354	100%
Sectoral classification						
Financial sector:	5,045	29%	4,120	21%	4,970	29%
Banks	3,154	18%	2,638	13%	4,214	24%
Insurance	799	5%	959	5%	463	3%
Financial services	1,092	6%	523	3%	293	2%
Real sector:	12,104	71%	15,435	79%	12,384	71%
Real estate	7,735	45%	8,159	42%	5,603	32%
Commerce & services	1,826	11%	1,616	8%	2,436	14%
Energy & gas	1,638	10%	3,185	16%	2,440	14%
Investments	820	5%	1,620	8%	1,049	6%
Technology	82	0.5%	112	1%	345	2%
Manufacturing	2	0.01%	744	4%	511	3%
TACT Institutions raised abroad	1,000		-		-	
Non-listed bonds and warrant exercise	251		421		167	
Total corporate bonds	18,400		19,976		17,521	
Structured bonds	659		892		-	
Total raised through non-government bonds	19,059		20,868		17,521	

*.Including private placements on the TACT Institutionals platform raised in ISRAEL.

Debt Raised in the Corporate Bond Market in 2018, Key Characteristics

• Reduction of debt raised in the real sector

The real sector raised US\$ **12.1** billion in 2018, accounting for 71% of the total raised in corporate bond offerings, as opposed to the US\$ 15.4 billion raised in 2017. **The proceeds are to be used to redeem traded bonds and to expand corporate activity.** The redemption of traded bonds

issued by companies in the real sector came to US\$ 7.5 billion in 2018 and is expected to be roughly US\$ 8 billion in 2019.

13 companies completed first bond offerings on the TASE bond market this year, raising US\$ 2 billion from the public.

- **Five** Israeli commercial real estate companies ("Israel Ports", "Amidar", "Tnuport", "Ramot in the City" and "Hagag Europe") and **five** foreign commercial real estate companies ("Starwood West", "Silverstein Properties", "MRR", "Elad Canada" and "Altitude Investments"), which raised a total of **US\$ 1.7 billion**.
- An oil and gas exploration company - **Delek Royalties**.
- A non-bank credit company - **MGG**.
- In addition, **Medley Capital** dual-listed its shares on TASE shortly before its public bond offering in Israel. The company provides loans to privately owned mid-market businesses in the U.S.

This year, **9 debt swap offers were tendered**, as opposed to 16 debt swaps in 2017. Most of the offers were implemented in the first half of the year, with an eye to taking advantage of low interest rates and lowering financing costs.

Real estate companies, which in the past few years have prospered, enjoying low financing costs resulting from low interest rates in Israel, reduced the scope of their capital raising in wake of a slowdown in real estate market activity, but still topped the sectoral list this year with a total of US\$ **7.7** billion raised, after raising US\$ 8.2 billion in the previous year.

Among the public offerings, **five** Israeli companies raised US\$ **1.1** billion in initial public bond offerings:

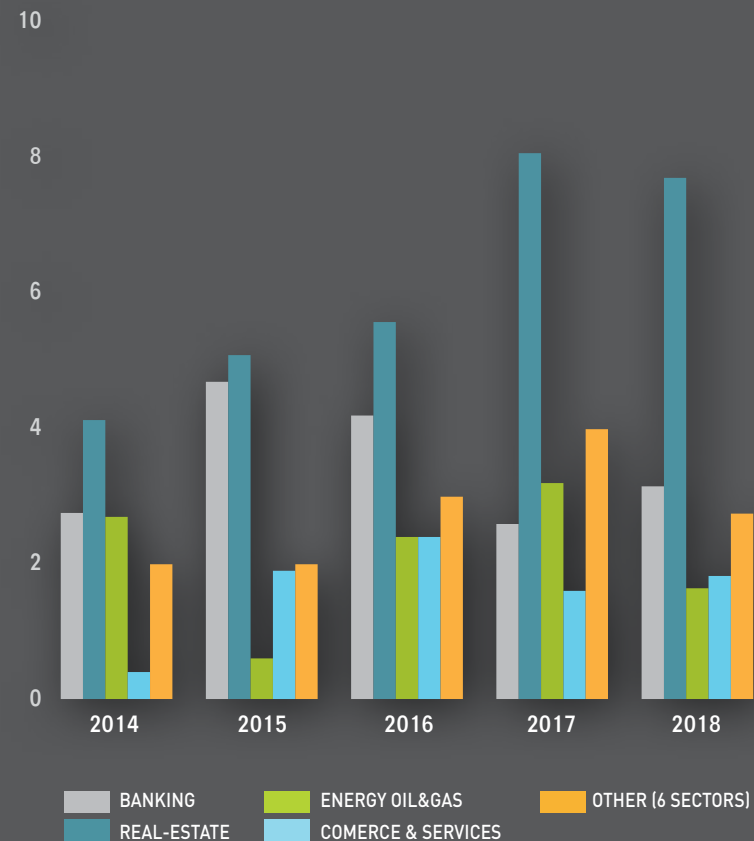
- **The Israel Ports** - a government company responsible for the management and development of Israel's sea ports, which raised **US\$ 690** million in a mega bond offering – **the largest bond public offering by a new issuer to date**. The company issued two series of CPI-linked bonds for a total of US\$ 552 million and one series of non-linked bonds for US\$ 138 million.
- **Amidar** - a government public housing company, which raised **US\$ 263** million in non-linked bonds.
- Three other companies completed bond first public offering: **Tnuport** (US\$ 102 million), **Ramot in the City** (US\$ 28 million) and **Hagag Europe** (US\$ 18 million).

Foreign real estate companies significantly reduced capital raising activity on TASE to US\$ **1.6** billion, following the US\$ 2.5 billion raised in 2017.

Among the issuers, **five foreign commercial real estate companies**, which raised some **US\$ 0.6 billion in bond IPOs**: **Starwood West** (US\$ 262 million), **Silverstein Properties** (US\$ 176 million), **MRR Thirteen** (73 million), **Elad Canada** (US\$ 55 million) and **Altitude Investments** (US\$ 54 million).

Commerce and Services came in second place among real sector bond issuers this year, with a total US\$ **1.8** billion debt raised – following US\$ 1.6 billion and US\$ 2.4 billion raised in 2017 and 2016, respectively. These companies redeemed US\$ 1.7 billion bonds in 2018, and are expected to redeem US\$ 1.4 billion in 2019. Among the 12 issuers from this sector stood out: the communications company, **Cellcom**, which raised US\$ 220 million, the car leasing companies, **Shlomo Holdings** and **Eldan Transportation**, which raised US\$ 220 million and US\$ 190 million, respectively, and **Shufersal**, which raised US\$ 165 million.

CAPITAL RAISED BY NON-GOVERNMENT BONDS BY SECTORS, 2014-2018 (US \$ billions)



(1) Including Corporate Bonds and TACT Institutional, Not Including deposit notes and structured bonds.

The real sector raised 71% of the total debt raised – real estate companies continue to top the sectoral list, raising a combined total of US\$ 7.7 billion

Energy and oil and gas exploration companies and joint partnerships were the third largest real economy issuers this year, raising US\$ 1.6 billion dollars, as opposed to more than US\$ 3 billion and US\$ 2 billion in 2017 and 2016, respectively. The following issuers stood out this year:

- Four **oil and gas companies and limited partnerships**, which raised US\$ 0.8 billion debt in the bond market. The most prominent were **Tamar Petroleum**, which raised US\$ 518 million in an offering the proceeds of which were used to acquire 7.5% of the rights to the Tamar natural gas field from Noble Energy, and the **Isramco** limited partnership, which raised US\$ 170 million. A third issuer is **Delek Royalties**, which holds the rights to receive super-royalties from the Tamar and Dalit projects, and which raised US\$ 119 million in a first **public offering on TASE bond market**.
- Four **energy** companies raised US\$ 0.8 billion, approximately one half of which, US\$ 445 million was raised by the **Israel Electric corp.** through CPI-linked bonds and non-linked bonds rated AA by the Maalot rating agency.

- **The financial sector increases debt raising activity**
The financial sector raised US\$ 5 billion this year, some 29% of all corporate debt raised on TASE, after raising US\$ 4 billion in 2017 and similar to the amount raised in 2016. The most prominent issuers this year were **Bank Hapoalim** and **Bank Leumi**, which raised US\$ 0.8 billion and US\$ 0.6 billion, respectively, in two public bond offerings each, and **Bank Discount**, which raised around US\$ 0.4 billion in a single offering. Four banks issued US\$ 0.7 billion **contingent convertible (CoCo) bonds**, which include a

mechanism for writing-down the principal or converting the bond to equity when triggered by events signaling heightened default risk, **Bank Leumi** raised US\$ 225 million, **Bank Hapoalim** and the **Mizrahi Tefahot Bank** raised US\$ 207 million and US\$ 195 million, respectively while the **First International Bank of Israel** raised US\$ 70 million.

- **The relative share of bond issues** rated A or above this year came to around 91% of the total raised in public bond offerings, as opposed to 82% and 85% in 2017 and 2016, respectively.
- **The relative share of CPI-linked bonds issued** of the total raised in public bond offerings increased, reaching 45% in 2018, as opposed to 38% in the previous year. This year US\$ 6.5 billion was raised in this manner. **The relative share of debt raised in public offerings of non-linked bonds** remained unchanged at 47% this year, similar to the two previous years, and in total, US\$ 6.8 billion was raised. Almost the entire amount was raised through fixed-interest bonds – US\$ 0.1 billion of which was raised by issuing commercial paper, as opposed to US\$ 0.2 billion raised on average in each of the two preceding years, 2016-2017. **The relative share of dollar-linked bonds** of the total raised in public bond offerings declined to 8% in 2018, as opposed to 14% in the previous year. US\$ 1.1 billion was raised this year in this manner, 75% of which by oil companies and limited partnerships.
- **US\$ 3.6 billion was raised through bonds placed on TASE's TACT Institutionals platform**, as opposed to US\$ 1.1 billion in the previous year. Prominent placements include:

- US\$ 1.6 billion raised by the financial sector:
 - US\$ 0.9 raised by **Bank Hapoalim** through the placement of two new series of CPI-linked bonds to institutional investors, US\$ 1.1 billion of the total was raised through CoCo bonds which include a mechanism for forced conversion to equity;
 - US\$ 0.4 billion was raised by the financial services firm, **Direct Finance** (not TASE- listed) through the placement of CPI-linked bonds.
 - US\$ 0.3 billion was raised **for the first time** by the **Leumi Card** credit card company (not TASE- listed) – US\$ 305 million of which through dollar bonds rated (AA-) by the Maalot credit rating agency, and US\$ 37 through dollar CoCo bonds which include a principal write-down mechanism.
- US\$ 1 billion was raised by the **Israel Electric Corp.** from institutional investors in the United States through the placement of dollar-linked bonds, which were listed for trading in Israel on the TACT Institutionals platform.
- US\$ 0.4 billion was raised **for the first time** by a foreign real estate company, **Chamoss** (not TASE-listed) through the placement of bonds linked to the British pound sterling.

Structured Bond Offerings

Ella Deposits raised US\$ 659 million this year through seven offerings of local bank deposit-backed bonds, locally rated AAA, this following the US\$ 890 million raised in two offerings in 2017. As in 2017, most of the amount this year, some US\$ 549 million was raised through CPI-linked bonds, while US\$ 110 million was raised through a series of dollar-linked bonds.

ETNs → ETFs

Reform of the ETN market and their conversion to ETFs

In October 2018 the reform spearheaded by the Israel Securities Authority (within the framework of Amendment 28 to the Joint Investment Trust Law) to convert exchange-traded notes (ETNs) to exchange-traded funds (ETFs) got underway.

714 ETNs became 610 ETFs trading on TASE, and this is following the 64 ETNs that were converted to open-ended mutual funds, the more than 100 ETNs that were merged, 29 ETNs that were redeemed in early redemptions and the 20 currency ETNs that were converted to money market mutual funds (with the exception of one ETN that transferred to trade on the TASE bond market as a deposit notes).

With the completion of the reform, 610 ETFs currently trade on TASE, with a total market value of US\$ 23 billion.

- 78 ETFs specialize in Israeli shares, and have a combined market capitalization of US\$ 5.1 billion.
- 208 ETFs specialize in Israel bonds, and have a combined market capitalization of US\$ 6.5 billion.
- 324 ETFs specialize in foreign securities, and have a combined market capitalization of US\$ 11.3 billion.

The reform of the ETN market, which converted ETNs to ETFs was implemented in the fourth quarter of 2018. 610 ETFs replaced 714 ETNs on TASE listings, as some ETNs were either redeemed or merged with other ETNs. Market capitalization of ETFs comes to US\$ 23 billion

The following is a review of the ETN market during the first three quarters of 2018 - prior to the implementation of the reform.

New ETN Series

In anticipation of the reform of the ETN market and their conversion to ETFs, which took place in the fourth quarter of 2018, the accelerated development that characterized the ETN market over the past decade slowed down considerably as early as 2017. In the first half of 2018 the final 25 ETNs were issued, following the 15 ETNs issued in 2017, as opposed to the 60-80 new ETNs issued in each one of the years between 2013 and 2016. Starting in June 2018, as part of the preparation for the conversion, no new ETN issues were permitted.

The ETNs issued this year:

- **The 2 first ETNs tracking the TA Sector-Balance index, which was launched in February of this year**, and comprises the 100 shares with the highest market capitalization of shares included in the TA-125 and TA-SME60 indices that are neither holding nor biomed companies. The market cap of these ETFs came to US\$ 16 million at the end of December.
- **18 ETNs tracking Tel Bond indices**, for which the market cap of these ETFs came to US\$ 330 million at the end of December:
 - **3 ETNs tracking the Tel Bond-Global index**, which was launched in July 2017,
 - **6 ETNs tracking the Tel Bond-Shekel indices** for 0-3, 3-5 and 5-15 year maturities that were launched in September 2017.
 - **3 ETNs tracking the Tel Bond CPI-linked indices** for 0-3 year, 3-5 year and 5-15 year maturities, which were launched in September 2017.
 - **5 ETNs tracking each one of the Tel Bond indices based on corporate bond credit ratings**, which were launched in February of this year.
 - **An ETN tracking the Tel Bond Shekel-Bank & Insurance index** that was launched in February of this year.
- **4 ETNs tracking foreign share price indices and one ETN tracking U.S. corporate bond price indices.**

Table 7: Mutual Funds Issuance/Redemption (US\$ millions)

	2018	2017
Funds investing in TASE-traded shares	-602	1,009
Funds investing in TASE-traded bonds	-4,299	5,713
Shekel funds	-1,149	-996
Money market funds	1,701	-959
Funds investing in foreign securities	1,070	546

Comment: Given the timing of the reform, no annualized data exist regarding public activity in ETNs and ETFs.

In this year as well, the public preferred active investment management to passive management, as was the case in the previous year:

- The public sold ETNs tracking local and international share price indices for US\$ **1.9** billion between January and September 2018, and acquired mutual funds investing in securities traded abroad for US\$ 1.1 billion.
- The public sold currency ETNs for US\$ **0.2** billion between January and September 2018, and purchased a net US \$1.7 billion money market funds.

The public sold ETNs tracking bond indices, mutual funds specializing in bond investments and Shekel funds

- In light of failing bond prices in both the United States and Israel, the public sold a negligible US\$ 20 million ETNs tracking bond price indices between January and September 2018, and sold off mutual funds specializing in bond investments as well as shekel funds for US\$ 4.3 billion and US\$ 1.1 billion, respectively.

ETNs/ETFs Trading Volume

TABLE 8: Average daily trading volume (US\$ millions)

	2018*	2017
Share market ETNs/ETFs*	78	84
% of share trading volume	20%	21%
Bond market ETNs/ETFs*	38	37
% of non-government bond trading volume	13%	13%

* 2018 turnover data does not include off-floor transactions, which were unusually large this year given the reform to convert ETNs to ETFs which was implemented in the final quarter of the year.

The trading volume for **share market-tracking ETNs** continued to fall in 2018, a decline which began in 2016 and was accompanied this year as well with massive ETN sell-offs by the public. The average daily trading volume for ETNs tracking share price indices (local and international) fell this year and came to US\$ 78 million, 7% lower than the average daily turnover in 2017.

The decline of activity in **ETNs tracking bond price indices and currency ETNs** which characterized the past two years, was curtailed this year and the average daily volume of trade came to US\$ 38 million, similar to that of the previous year.

DERIVATIVES MARKET

The daily average turnover of **monthly options on the TA-35 index** came to 100 thousand contracts in 2018, similar to that of the previous year. Trading was highly volatile, experiencing an uptick in the first trimester of the year, similar to the heighten activity in the underlying share market, and an average 115 thousands changed hands daily. Afterwards, daily volume slipped to an average 85 thousand contracts daily and in the third trimester of the year, turnover settled at around 100 thousand contracts per day.

In contrast, activity in **weekly options on the TA-35 index** gained momentum, and an average 34 thousand contracts changed hands daily in 2018, an 11% increase over last year's turnover. **On February 6th**, following a steep drop in share prices on Wall Street, the greatest volatility in share trading was posted and the turnover of weekly options on the TA-35 shot up to **146,057 contracts, the highest turnover ever since their launch in July 2013.**

Trading in 2018 was characterized by high volatility relative to last year. Average implied volatility in TA-35 options came to 12%. However, during several months this year (in wake of uncertainty in world markets regarding the trade war and investor apprehension regarding interest rate hikes) implied volatility climbed to the 15%-18% range.

Trading in **dollar options** averaged 56 thousand contracts per day in 2018, 6% higher than the average turnover in the previous two years. The 8% appreciation of the dollar against the shekel contributed to the uptick in activity, influenced by the Federal Reserve's interest hikes and large dollar purchases by the Bank of Israel.

T-BILLS (MAKAM)

Daily turnover of T-bills (on and off-floor transactions) came to US\$ 120 million in 2018, twice the turnover of the previous year. Large off-floor transactions by foreign residents beginning in May contributed to the uptick in activity. Daily average T-bill turnover excluding these transactions came to US\$ 70 million, still 17% higher than the average trading volume in 2017 and following three consecutive years of sliding T-bill trading activity.

T-bill prices remained steady in 2018 for the fourth consecutive year, and the yield-to-maturity increased slightly to 0.5% at the end of 2018, as opposed to 0.1% at the end of 2017.

In 2018, **T-bill holdings of Israeli and foreign investors** grew, coming to US \$28.3 billion at the end of the year, as opposed to US \$26.5 billion and US \$27.3 billion at the end of 2017 and 2016, respectively. Most of the increase this year stems from purchases by foreign investors, while some can be attributed to purchases by the Israeli public as well.

In 2018 foreign investors purchased a massive amount of **T-bills on the Tel Aviv Stock Exchange** for US\$ 2.4 billion, after purchasing a net US \$0.8 billion in 2017.

TABLE 9: TA-35 INDEX OPTIONS VOLUME, 2014-2018

Year	Daily Volume in Monthly Options (thousands contracts)	Daily Volume in Weekly Options (thousands contracts)	Derivatives Liquidity ratio ⁽¹⁾	Maximum no. of open interest contracts (thousands)
2014	176	26	1,703%	688
2015	160	41	1,439%	670
2016	121	40	1,156%	514
2017	100	31	857%	816
2018	100	34	843%	583

(1) The ratio between the turnover of the TA-35 options, in the underlying asset terms, (delta-weighted, taking into account the probability that the options will be exercised) and the turnover of the TA-35 index shares.



TASE NEWS

TASE CELEBRATES ITS 65TH YEARS ANNIVERSARY

The Tel Aviv Stock Exchange (TASE) marked its 65th anniversary this year. As part of the commemoration, TASE launched an initiative in conjunction with the public to assess the value of the State of Israel, which is celebrating its 70th birthday this year. Israel's value was set according to the public appraisal of various subjects relevant to the calculation of country wealth, and along the parameters of the World Bank's methodology for country capital and wealth valuation, which was recently undertaken for 140 countries, but of which Israel was not a part.

Israel's valuation constituted a significant facet of a comprehensive public outreach campaign, the largest in TASE's history, to familiarize the public with basic concepts and to break down barriers to public investment stemming from a lack of understanding of capital market fundamentals. TASE enlisted **Adi Ashkenazi**, a popular Israeli comedian for the campaign, who, in a series of humoristic short videos invited the public to take part in Israel's valuation.



From right to left: Amnon Neubach, TASE Chairman; Yitzhak Cohen, Deputy Finance Minister finance; Moshe Kahlon, Finance Minister; Anat Guetta, Chair, Israel Securities Authority; Ittai Ben Zeev, TASE CEO. Photo: Omer Messinger

The initiative resulted in more than 1.5 million views of the various Ashkenazi clips, more than 100 thousand unique users who visited the website, more than 20 million user exposures over all channels of digital and media, and ultimately, to Israel's capital valuation by the general public.

At the conclusion of the campaign, **Israel's Finance Minister, Moshe Kahlon** announced the value set for Israel during a special TASE opening bell ceremony. While at the beginning of the campaign, an initial value of NIS 16 trillion was assessed, by the time the public had its say, this number rose to NIS 17,638,763,277,054.

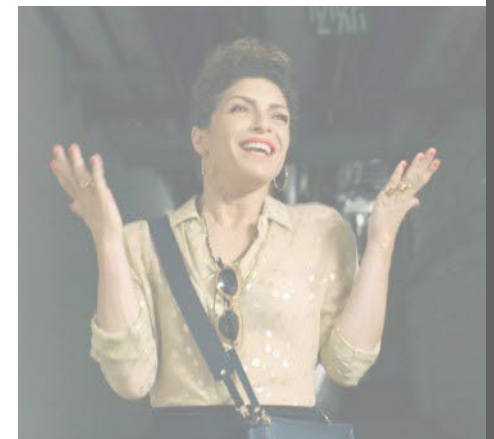




Photo: Guy Asayag

Findings of the rating demonstrated that 77.9% of the public believes first and foremost in Israel's technological future. Israel's security future ranks second with 62.8% expressing firm beliefs in it. The standard of living in Israel came in third, with 47.2% of the public believing that it is on an upward trajectory. 39.2% of the public believe strongly in Israel's health system, while only 35.5% expressed a strong belief in the future of Israeli education.

TASE Salutes Founders as the Trading Floors Came Alive

In June, in a moving nostalgic event, TASE commemorated its 65th anniversary by saluting its founding generation. Some 300 guests attended the event, including ex-floor traders, market players, traders, brokers and bankers. The meeting ignited memories of yesteryear, when trade was conducted on physical trading floors at TASE'S Tel Aviv's Allenby Street headquarters, which were later moved to Ahad Haam Street. Trading was conducted on the floor until October 1999, at which time the transfer of all securities to TASE'S automated and TACT system was completed. From this time, forward trading on TASE has been entirely computerized.



From right to left: Yossi Nitzani and Ester Levanon, former TASE CEOs; Amnon Neubach, current TASE Chairman, and Prof. Meir Heth, former TASE Chairman and Ittai Ben Zeev, current TASE CEO.
Photo: Guy Asayag



TASE'S DEMUTUALIZATION

In August 2018, the Israel Securities Authority (ISA) approved the transaction outline of the demutualization of the Tel Aviv Stock Exchange. The outline included granting holding permits to international investors seeking to purchase majority interest from TASE members. The purchase agreement includes the sale of 71.7% TASE shares to five international investors as follows: 19.9% acquired by Manikay Partners, a U.S. based entity, which has vast experience and is familiar with leading securities exchanges worldwide, while the remaining 51.7% interest was acquired by four additional international investors, such that each will directly hold 4.69% equity interest and at least 30% of will be held by a trustee until the future public offering.

The sale of TASE shares has led to the separation between TASE ownership and TASE membership, which will help TASE become a competitive, efficient and profitable enterprise and allow it to focus on carrying out its business plan in manner, which serves it, its shareholders and the public at large. [For more information >>](#)

TASE NOMINEE COMPANY TAKES OFF

The TASE Nominee Company commenced operations at the beginning of 2018. Since its inception, more than 100 public and reporting companies, as well as the ETF issuers: Psagot, Tachlit, Harel-Sal and K.S.M. SAL, have joined the TASE Nominee Company. The Company offers its services at prices which are more than 50% lower than those quoted on the eve of its establishment by the three other bank-owned nominee companies. This prompted the competition to lower the fees they charge public companies.

The TASE Nominee Company intends to offer its services in 2019 at lower prices than those charged in 2018, in light of the experience accrued during its first year of operation and the improved efficiency stemming from the fact that the services are rendered under the TASE umbrella, which has years' experience in understanding and tending to the needs of public companies. [For more information >>](#)



TASE OPENS ITS DOORS TO THE WORLD

Following its strategic program, TASE launched new areas of activity in 2018 to diversify sources of revenues. This included new avenues of international cooperation's, through which TASE is able to leverage its professional expertise and vast experience.

Cyber security consultancy agreement with Kazakhstan's new stock exchange

For the first time ever, TASE contracted with a foreign exchange to provide consultancy services in the field of cyber security. Under an agreement with Kazakhstan's new stock exchange, the Astana International Exchange (AIX), TASE will provide an extensive suite of cyber security services and solutions, including: research into and assessment of the business and technological environment as it relates to cyber security, an analysis of specific needs, a mapping of risks and identification of relevant solutions to Kazakhstan's new exchange. In addition, TASE will be responsible for project planning for the implementation of cyber security; will assist in supplier selection and task prioritization, and will control and supervise the project's implementation. [For more information >>](#)

Cooperation in dual IPOs with the Singapore Stock Exchange (SGX)

This year, following the extension of the dual-listing provisions of Israel's Securities Law to securities exchanges in Singapore, Hong Kong and Toronto, TASE and the Singapore Stock Exchange (SGX) entered into a cooperation agreement, which enables Israeli technology companies, for the first time, to raise capital in both markets simultaneously and dual list on both exchanges. The cooperation between the exchanges includes provisions to assist privately held companies prior to their initial exchange listings and during the IPO process and to support issuers following the dual listing, in order to leverage the familiarity of the respective exchanges with their markets and the various systems at their disposal. The dual listing of technology companies on both exchanges is expected to enhance the liquidity of these shares and to increase the number of technology companies trading on both exchanges. The opportunity of accessing two pools of capital through simultaneous public offerings is expected to contribute to the companies' ability to receive attractive valuations from both Asian and Israeli investors. To advance this initiative, a TASE delegation visited Singapore in October,

accompanied by representatives from private companies, underwriting and accountancy firms. In July and November this year, SGX delegations visited Israel, accompanied by representatives from underwriting and accountancy firms to meet with relevant private Israeli companies.

[For more information >>](#)

TASE upgrades technological infrastructure to enable Co-location

Starting in 2019, TASE will enable the hosting of trading services by TASE members and other customers at the TASE data center through connectivity to its low-latency trading network. Co-location will improve service to TASE customers by promoting equitable access to high-speed network infrastructure. It will facilitate timely activity of TASE's Israeli and foreign members and enable end clients to improve trading performance. Co-location have become a standard with the world's leading financial exchanges.



TASE OPENS ITS DOORS TO THE WORLD >>

Direct access to TASE market for European investors

TASE signed a cooperation agreement this year with the global network provider company, BSO, which will enable European investors to receive convenient, direct access to TASE trading and market data. TASE provides connectivity services from a central data center in London, in which the trading servers of leading world exchanges and major international traders are located, directly to TASE's data center in Tel Aviv. This service constitutes a convenient and efficient communications solution, which will greatly facilitate TASE's accessibility to international traders, as well as the accessibility of European markets to Israeli investors.

[For more information >>](#)

Development of a central securities lending platform based on blockchain technology

This past year, The Floor (an Israeli Fintech accelerator) and Accenture, in conjunction with TASE, launched the development of a central securities lending platform based on Intel's blockchain technology. TASE will be the

first financial institution in Israel to establish a central securities lending pool and the first to develop core financial business activity in the blockchain - an innovative, trailblazing technology in the world of finance. Israel's capital market currently lacks a central platform for securities lending. Today, securities lending is conducted through an intra-bank mechanism, and as a result, the market does not properly address investor needs. The objective is to alter the securities lending market by creating a central platform, which will enable direct lending of all major financial asset classes between investors. Lending over a central platform will contribute to the enhancement of market activity by lowering the mediation costs associated with securities lending, reducing inherent risk through central clearing, thus making lending and borrowing more accessible to a wider variety of investors.

[For more information >>](#)

Reductions of TASE remote membership requirements

TASE has opened its doors to brokers and investors from around the world by easing the threshold requirements for remote TASE membership. This measure is designed to enable greater international investor exposure to TASE and enhance the liquidity of Israel's capital market. The approved revisions include, among others: a lowering of minimum capital



requirements, which served as an entry barrier for foreign firms and the expansion of the list of jurisdictions in which remote members could be incorporated to include all member counters of the European Union, Hong Kong, Ontario (Canada) and Singapore. In addition, the list of recognized securities exchanges was updated and the minimum tenure of membership in these exchanges was lowered to three years. At the same time, additional conditions were placed on remote membership. These include a prohibition on the solicitation of Israeli clients by remote members, i.e., remote members are not allowed to initiate contact with Israeli clients to offer their services. In addition, various disclosure requirements have been imposed on remote members, including the submission of current and periodic reports. TASE remote members must continue to meet various ongoing and entrance requirements, including requirements pertaining to insurance, regulation by the relevant authorities in the place of incorporation and of activity as a securities exchange member, and requirements regarding the IT infrastructure on which the member's TASE activity is conducted.

[For more information >>](#)

TASE BECOME MORE ACCESSIBLE TO THE GENERAL PUBLIC

Over the past year, TASE has embarked on measures to improve the accessibility of information to the general public, with an eye to providing direct and easy access to information on TASE and facilitate participation in trading and public offerings.

Comparative trading fees tables

For the first time, TASE posted charts comparing the trading and clearing fees TASE members charged customers on its website (in Hebrew). The publication of fees set by TASE members encourages competition by allowing the public to compare fee schedules. Data included in the comparison includes average custody fees customers were charged according to portfolio value and the trading and clearing fees TASE members charge their customers, according to the fee schedules published by the member.

[For more information >>](#)

Click-through subscription to securities offerings

As of last August, investors can now participate directly and digitally in securities' offerings issued by TASE-listed companies through the "new issues" bulletin board posted on its (Hebrew language) "MAYA" website. A simple click on the "subscription" button on the new issues table gives investors direct access to the TASE member administering their account. Information on the offerings is posted under the "Impending Offerings" tab. In the future, investors will also be able to receive alerts regarding updates to the list of new issues open for subscription. [For more information >>](#)

TASE lowers cost of market data to retail investors

As of January 2019, TASE will cut the cost of real-time market data sold to the general public, allowing the purchase of basic (level 1) real time data subscriptions for as little as NIS 4 per month. This move is designed to lower data costs for retail investors, promote competition in the securities services rendered to the public and to make TASE data directly and digitally accessible to as large a segment of the Israeli public as possible. Israelis today are continually connected through cellular devices and they will now be able to receive complete market data streamed from TASE to any cellular device of their choosing. Investors will be able to receive this information from the TASE member through which he operates, or from existing or new data vendors providing this service.

Dedicated website for novice investors

In August of this year, TASE launched a "TASE for Beginners" website (in Hebrew), which provides potential investors the information necessary for them to take an active part in the capital market. Comedienne, **Adi Ashkenazi** fronts TASE's light-hearted, humoristic financial education campaign, bringing the Israeli public closer to the world of securities trading. Answers are given to key questions, including: What is a stock exchange? What are stocks? How does one invest in TASE? and other concepts are explained through a series of short videos featuring the popular actress.

[For more information >>](#)



New Look for the TASE website

In July, TASE launched an updated and upgraded version of its website, which incorporates innovative graphics, a user-friendly interface and other revisions designed to facilitate use and improve the website's efficiency, with an emphasis on functions serving investors, public companies and active traders. <https://www.tase.co.il/en>

New TASE cellular application

TASE launched an upgraded version of its official app (in Hebrew), which includes a variety of advanced tools for retail investors, companies and market professionals. In addition to a new and up to date user experience, the app provides quick access to the comparative trading fee system and to the click-through open public offerings service. Through a quick and simple search function investors can easily and conveniently access timely information, including trading trends, turnovers and most active securities, corporate disclosures posted on TASE's MAYA system, information on indices, securities and traded companies, interactive trading graphs, personal portfolio data and smart agent alerts.



TRADING AND NEW INDICES

Index reform completed

TASE's Equity indices reform was completed in February 2018. Among the major changes introduced in by the reform: the number of constituents in each index raised and the weight caps placed on individual shares in an index reduced. For example, the TA-25 index, TASE's flagship index, was expanded from 25 to 35 shares and its name was changed accordingly to the TA-35 index. The weight cap for an individual share lowered from 10% to 7%.

TASE expanded its product offerings throughout 2018, launching 10 new indices – 3 Equity and 7 Corporate Bond indices.

Equity indices

TA Sector-Balance Index – This index was launched at the beginning of the year and includes the 100 shares with the largest market

capitalization of those included in the TA-125 and TA-SME60 indices, which meet the index criteria, primarily sub-sectoral in nature. The index excludes both holding companies and biomed companies, and the number of constituents from a given subsector is limited to 15. This is designed to create diversification from various economic sectors in which TASE-listed companies operate. [For more information >>](#)

TA-Industrials Index – This index was launched in cooperation with Israel's Ministry of Economy and Industry, and includes industrial enterprises traded on TASE. The index has more than 80 constituents representing a wide array of industries, including pharmaceuticals, electronics and optics, metallurgy and related products, defense industries, and fashion and clothing. It provides investors the opportunity to partake in the growth embodied in Israeli industrial sector. [For more information >>](#)

TA-Family Index – This specialty index is dedicated to shares of family-owned companies listed on the "family businesses" list compiled by the Raya Strauss Family Business Research Center at Tel Aviv University, which are included in the Rimon Universe and have a market capitalization exceeding NIS 300 million at the time of index's launch in October 2018. [For more information >>](#)

VTA-35 Volatility Index – This index represents the level of volatility implied in TASE-traded TA-35 option prices, similar to indices tracking the volatility of other leading exchanges abroad. The index was developed by TASE, adjusted to specific features of TASE's derivatives market. It reflects the standard deviation implied in the prices of options written on the TA-35 index, for the following 30 days, in annualized terms. The index is scheduled to launch in 2019. [For more information >>](#)

Tel-Bond price indices

Seven new Tel Bond indices were launched in 2018 within the framework of TASE's on-going efforts to expand the variety of Indices-traded products:

- **Tel-Bond-CPI Linked A**
- **Tel Bond-CPI Linked AA-AAA**
- **Tel Bond-Shekel A**
- **Tel Bond-Shekel AA-AAA**
- **Tel Bond-Shekel Bank and Insurance**
- **Tel Bond-CPI Linked Real Estate**
- **Tel Bond-Dollar**

[For more information >>](#)

TABLES

TA-35 INDEX COMPANIES

TABLE 10: MARKET CAPITALIZATION AND WEIGHTING

SECURITY	MARKET CAP 31.12.2018 (US\$ millions)	WEIGHTING ⁽¹⁾	SECURITY	MARKET CAP 31.12.2018 (US\$ millions)	WEIGHTING ⁽¹⁾
1. Nice ⁽²⁾	6,637	8.2%	18. Shufersal	1,560	2.0%
2. Bank Leumi	9,006	8.0%	19. Israel Corporation	2,039	2.0%
3. Bank Hapoalim	8,416	7.5%	20. Strauss Group	2,609	1.9%
4. Israel Chemicals ⁽²⁾	7,242	6.9%	21. IFF ⁽²⁾⁽³⁾	14,209	1.7%
5. Teva ⁽²⁾	17,047	6.0%	22. Isramco	1,285	1.6%
6. Bank Discount	3,590	5.8%	23. Liveperson	1,024	1.5%
7. Perrigo ⁽²⁾	5,432	5.4%	24. Opko ⁽²⁾	1,642	1.5%
8. Elbit Systems ⁽²⁾	4,891	4.7%	25. Airport City	1,611	1.5%
9. Mizrahi Tefahot Bank	3,931	3.7%	26. Bazan	1,524	1.4%
10. Bezeq	2,693	3.4%	27. Harel	1,407	1.3%
11. Azrieli Group	5,776	3.2%	28. Melisron	1,862	1.3%
12. Ormat Technologies ⁽²⁾	2,670	3.0%	29. Gazit Globe ⁽²⁾	1,318	1.3%
13. Tower ⁽²⁾	1,569	2.5%	30. Phoenix	1,299	1.2%
14. Paz Oil	1,530	2.4%	31. Delek Group	1,714	1.2%
15. Delek Drilling	3,076	2.1%	32. Amot	1,682	1.2%
16. Alony Hetz	1,593	2.0%	33. Fattal Holdings	1,542	0.6%
17. International Bank	2,104	2.0%	TOTAL⁽⁴⁾	125,529	100.0%

TABLE 11: DAILY TURNOVER

SECURITY	DAILY TURNOVER ⁽³⁾ (US\$ thousands)	SECURITY	DAILY TURNOVER ⁽³⁾ (US\$ thousands)
1. Bank Leumi	21,206	18. International Bank	3,159
2. Teva ⁽²⁾	16,076	19. Paz Oil	3,073
3. Bank Hapoalim	15,248	20. Gazit Globe ⁽²⁾	2,971
4. Israel Chemicals ⁽²⁾	11,640	21. Delek Drilling	2,958
5. Nice ⁽²⁾	11,334	22. Alony Hetz	2,952
6. Bezeq	9,321	23. Strauss Group	2,637
7. Bank Discount	8,715	24. Bazan	2,357
8. Elbit Systems ⁽²⁾	8,570	25. Isramco	2,258
9. Mizrahi Tefahot Bank	6,792	26. Harel	2,195
10. Perrigo ⁽²⁾	6,526	27. Phoenix	2,035
11. Tower ⁽²⁾	6,212	28. Melisron	1,986
12. Azrieli Group	4,527	29. Amot	1,864
13. IFF ⁽²⁾⁽³⁾	4,259	30. Opko ⁽²⁾	1,811
14. Ormat Technologies ⁽²⁾	3,388	31. Airport City	1,646
15. Shufersal	3,366	32. Liveperson	983
16. Israel Corporation	3,349	33. Fattal Holdings	938
17. Delek Group	3,318	TOTAL	179,671
		72% OF TOTAL TURNOVER⁽⁵⁾	

(1) Not including off exchange transactions.

(2) Dual-Listing company.

(3) The Company's shares was added to the index on December 9th, 2018.

(4) Market cap value does not include SodaStream shares (US\$ 3,240 million) and the shares of Mazor Robotics (US\$ 1,640 million), which were removed from the index in December.

(5) The TA-35 index, for the calculation of weight, including the shares of SodaStream (US\$ 4.6 million a day) and Mazor Robotics (US\$ 4.0 million a day), which were delisted from the index in December.

TABLE 12: CAPITAL RAISED BY SECURITY TYPES, 2009-2018 (US \$ millions)

Year	Shares & convertibles		Government Bonds - Gross	Corporate Bonds			ETPs ⁽³⁾
	Tel-Aviv ⁽¹⁾	Abroad ⁽²⁾		Corporate Bonds ⁽¹⁾	Institutionals	Total	
2009	1,701	266	17,370	8,296	874	9,170	549
2010	3,424	152	15,165	10,416	862	11,278	558
2011	1,437	405	17,966	9,574	1,631	11,205	380
2012	889	171	21,326	7,316	1,131	8,447	144
2013	1,690	440	18,200	9,545	601	10,146	296
2014	2,146	1,876	14,525	10,321	5,827	16,148	116
2015	1,428	8,591	9,965	14,072	617	14,689	45
2016	1,804	5,860	12,361	16,518	1,003	17,521	24
2017	3,407	589	12,829	18,622	1,354	19,976	933
2018	1,858	622	12,912	14,596	3,804	18,400	674
Change in 2018	-45%	6%	1%	-22%	181%	-8%	-28%

(1) Including direct offers, private placements and exercise of warrents.

(2) In 2015 including US\$ 7.4 billion raised by TEVA through public shares offering in USA.

In 2016 including US\$ 5.5 billion raised by TEVA through private placement to Allergan.

(3) Including deposit notes and structured bonds.

TABLE 13: DAILY TURNOVER, 2009-2018⁽¹⁾ (US \$ millions)

Year	The Equity Market			The Fixed Income Market			Treasury Bill	Total	
	Total	Thereof:		Total	Thereof:				
		Shares & convertibles	ETPs		Government Bonds	Corporate Bonds			ETPs ⁽²⁾
2009	432	347	85	1,035	806	151	78	163	1,630
2010	547	460	87	875	639	172	64	320	1,742
2011	482	373	109	1,054	805	179	70	328	1,864
2012	279	223	56	1,063	800	188	75	165	1,507
2013	324	248	76	1,202	920	210	72	160	1,686
2014	339	237	102	1,186	901	204	81	179	1,704
2015	373	252	121	1,070	789	198	83	131	1,574
2016	330	240	90	979	712	216	51	90	1,399
2017	390	306	84	1,011	726	248	37	60	1,461
2018 ⁽³⁾	391	313	78	1,025	736	251	38	120	1,536
Change in 2018	0%	2%	-7%	1%	1%	1%	3%	100%	5%

(1) Including off-the floor transactions.

(2) Including deposit notes and structured bonds.

(3) In 2018 not including off-floor trading of exchange-traded products (ETPs) that were unusually large in scope due to the conversion of ETNs to ETFs under the reform implemented in the final quarter of the year.

TABLE 14: MARKET CAPITALIZATION OF LISTED SECURITIES, 2009-2018 (US \$ billions)

Year	The Equity Market		The Fixed Income Market				Treasury Bills
	Shares & convertibles	ETPs ⁽¹⁾⁽³⁾	Government Bonds	Corporate Bonds	TACT Institutional	ETPs ⁽²⁾⁽³⁾	
2009	189.4	6.7	97.3	53.3	9.1	10.1	22.6
2010	227.1	9.4	109.7	67.3	9.8	9.7	38.1
2011	157.1	7.5	107.0	61.6	9.3	9.6	32.1
2012	161.8	9.3	123.1	69.9	10.0	11.1	31.4
2013	203.3	16.2	138.5	78.1	9.7	16.9	36.2
2014	200.6	18.1	127.6	67.8	12.6	16.0	33.4
2015	243.6	19.1	128.8	70.2	11.9	11.4	29.7
2016	213.9	18.6	129.7	78.2	11.7	10.4	27.3
2017	231.0	21.6	141.9	94.8	12.4	11.3	26.5
2018	187.6	15.9	129.1	89.5	11.9	7.3	28.8

(1) Public Holdings. Source: Bank of Israel.

(2) Public Holdings. Source: Bank of Israel - Including deposit notes and structured bonds.

(3) in 2018 - Market Capitalization of ETFs. Source: TASE.

TABLE 15: ANNUAL YIELDS OF THE EQUITY INDICES, 2009-2018 (% , in local currency terms)

Year	TA-35 ⁽¹⁾	TA-125 ⁽¹⁾	TA Global-BlueTech ⁽²⁾	TA-Finance ⁽³⁾	TA-RealEstate ⁽⁴⁾	General Share
2009	74.9	88.8	92.7	126.9	125.2	78.8
2010	15.8	14.9	9.1	9.3	15.4	12.6
2011	-18.2	-20.1	-9.4	-34.0	-23.2	-22.1
2012	9.2	7.2	15.6	23.1	14.1	4.5
2013	12.1	15.1	8.6	18.8	26.0	15.3
2014	10.2	6.7	-5.2	-7.7	0.9	11.5
2015	4.4	2.0	1.6	4.0	1.1	6.8
2016	-3.8	-2.5	15.3	19.2	17.0	-11.0
2017	2.7	6.4	-2.2	26.6	23.4	-1.1
2018	-3.0	-2.3	-10.6	-0.3	-10.9	-3.9

(1) Till February 2017 TA-35 was TA-25 and TA-125 was TA-100.

(2) Till March 2011 -Tel-Tech. Till June 2014 - BlueTech-50. Till February 2017 - BlueTech.

(3) Till March 2011 - Finance-15.

(4) Till February 2017 - RealEstate-15.

TABLE 16: ANNUAL YIELDS OF THE BOND INDICES, 2009-2018 (% , in local currency terms)

Year	General Bond Index	Government Bond Indices		Corporate Bond Indices				
		CPI Linked Bonds	Non Linked Bonds	CPI Linked Bonds			Non Linked Bonds Tel Bond-Shekel	Dollar Linked Bonds ⁽¹⁾
				Total ⁽¹⁾	Thereof: Tel-Bond 20	Thereof: Tel-Bond 40		
2009	15.5	10.3	2.5	40.2	21.6	44.1	-1.9	6.8
2010	8.0	8.0	5.0	13.0	11.1	10.8	8.3	-0.9
2011	2.5	4.3	5.2	-1.8	0.7	-1.6	5.0	8.2
2012	8.8	9.4	7.0	10.3	7.9	9.1	7.4	7.3
2013	5.4	3.0	4.0	9.5	5.9	6.9	5.9	-0.2
2014	4.7	5.8	7.2	1.0	1.0	0.6	4.0	3.3
2015	1.8	-0.2	2.8	0.8	-1.1	0.2	4.7	5.5
2016	2.1	0.7	1.2	4.1	2.9	1.7	2.4	9.4
2017	4.7	3.4	3.6	6.2	7.1	4.4	7.5	-1.7
2018	-1.5	-1.4	-1.2	-0.8	-1.1	-0.4	-4.3	5.1

(1) Including corporate bonds (until June 2010 including structured bonds and deposit notes).

TASE MEMBERS

CONTACTS FOR INTERNATIONAL INVESTORS - BANKS

Banks	contact Person	Cell	Tel	Fax	E-mail	Web Site
Bank Hapoalim	Naomi Shpirer		972-3-5675234	972-3-5676009	Naomi.shpirer@poalim.co.il	www.bankhapoalim.com
Bank Leumi Le-Israel	Carine Wiener Perlmutter		972 76 8857327	972 76 8858548	custody-cash@bll.co.il carine.wiener-perlmutter@bankleumi.co.il	https://english.leumi.co.il/LEFullArt/Custody_and_Cash_Relations/9785/
Bank Massad	Gabriel Teitel		972-3-5641358	972-3-7170555	gabriel.teitel@bankmassad.co.il	www.bankmassad.co.il
Bank of Israel	Mimi Regev		972-2-6552575	972-2-6669575	mimi.regev@boi.org.il	www.boi.gov.il
Bank of Jerusalem	Yinon Nir	972-54-4554060	972-76-8095560	972-3-6251017	yinonn@bankjerusalem.co.il	https://www.bankjerusalem.co.il
Bank Yahav for Government Employees	Boaz Leibovitch		972-2-5009725	972-2-5010120	BoazL@yahav.co.il	https://www.bank-yahav.co.il/
Barclays Bank PLC	Tavy Rosner		972-3-6238628	972-3-6238666	tavy.rosner@barclays.com	www.barclays.com
Citibank,N.A.	David Levy		972-3-6842732	972-3-6842702	david1.levy@citi.com	www.citigroup.com
HSBC Bank PLC	Harel Cordova		972-3-7101100	972-3-7101133	harelcordova@hsbc.com	www.hsbc.co.il
Israel Discount Bank	Tamar Koblenz		972-3-5144496	972-3-5146362	tamar.koblenz@idbank.co.il	https://investors.discountbank.co.il/
Mercantile Discount Bank	Zion Beker	972-54-8002130	972-76-8044999	972-76-8044917	zionb@mdb.co.il	https://www.mercantile.co.il/MB/en
Mizrahi Tefahot Bank	Ronit Baron		972-3-7559722	972-3-7559150	ronitb@umtb.co.il	https://www.mizrahi-tefahot.co.il/en/bank/pages/default.aspx
The First International Bank of Israel	Dafna Zucker		972-3-5196224	972-3-5100253	zucker.d@fibi.co.il	https://online.fibi.co.il/wps/portal/FibiMenu/MarketingEN/AnInformation/AnInvestorRelations/AnCEOStatement
Union Bank of Israel	Shachar Rotbard		972-3-5191911	972-3-5191911	shachar@ubi.co.il	www.unionbank.co.il

TASE MEMBERS

CONTACTS FOR INTERNATIONAL INVESTORS - BROKERS

Brokerage Firms	contact Person	Cell	Tel	Fax	E-mail	Web Site
Citigroup Financial Products Israel	Neil Corney	972-54-8144401	972-3-6842460	972-3-6842414	neil.corney@citi.com	www.citigroup.com
Excellence Nessuah Brokerage Services	Dan Farhi	972-54-3443000	972-3-7532960	972-3-7536633	dan.farhi@xnes.co.il	www.xnes.co.il
Israel Brokerage and Investment I.B.I	Lital Kost	972-54-4775718	972-3-5193452	972-3-5193456	lital@ibi.co.il	https://www.ibi.co.il/?lang=en
Meitav Dash Trade	Yoni Baram		972-3-7903555	972-3-7903590	yonib@mtds.co.il	www.meitavdash.co.il
Poalim Sahar	Ehud Chityat	972-54-4669941	972-3-7104500	972-3-7104505	udi@sahar.co.il	www.sahar.co.il
Psagot Securities	Avraham Perelmutter	972-54-4604495	972-3-7968830	972-3-7968845	avraham.perelmutter@psagot.co.il	www.psagot.co.il
UBS Securities Israel	Amir Lev	972-54-8002133	972-9-9600114	972-9-9600124	amir.lev@ubs.com	www.ubs.com

Remote Member	contact Person	Cell	Tel	Fax	E-mail	Web Site
Merrill Lynch International	Lara Shevchenko		44 207 7995.3179		lara.shevchenko1@baml.com	http://corp.bankofamerica.com/business/ci/home
Merrill Lynch International	Yuhang Wang		44 207 7995.1059		yuhang.wang@baml.com	http://corp.bankofamerica.com/business/ci/home

The Tel-Aviv Stock Exchange Ltd. 2 Ahuzat Bayit St Tel Aviv 6525216, P.O.B 6129001 ,29060 Israel Tel: 972-76-8160405 • Fax: 972-76-8160309

This Annual Review of The Tel-Aviv Stock Exchange Ltd ("TASE") is intended solely for personal, non-commercial use. It may not be used for any other purpose whatsoever. This Annual Review does not constitute a solicitation, offer, opinion or recommendation by TASE to buy or sell securities. Nothing contained herein shall be construed as investment, tax, accounting or legal advice

Moreover, while all information contained herein is obtained from sources believed to be accurate and reliable, TASE is not responsible for any errors or omissions. All information is provided "as is" without any warranty whatsoever. TASE does not make any representations, and it disclaims all express, implied and statutory warranties of any kind, including warranties as to accuracy, timeliness, completeness, merchantability or fitness for any particular purpose.

© All rights reserved by The Tel-Aviv Stock Exchange Ltd

Graphic Design: Studio Merhav