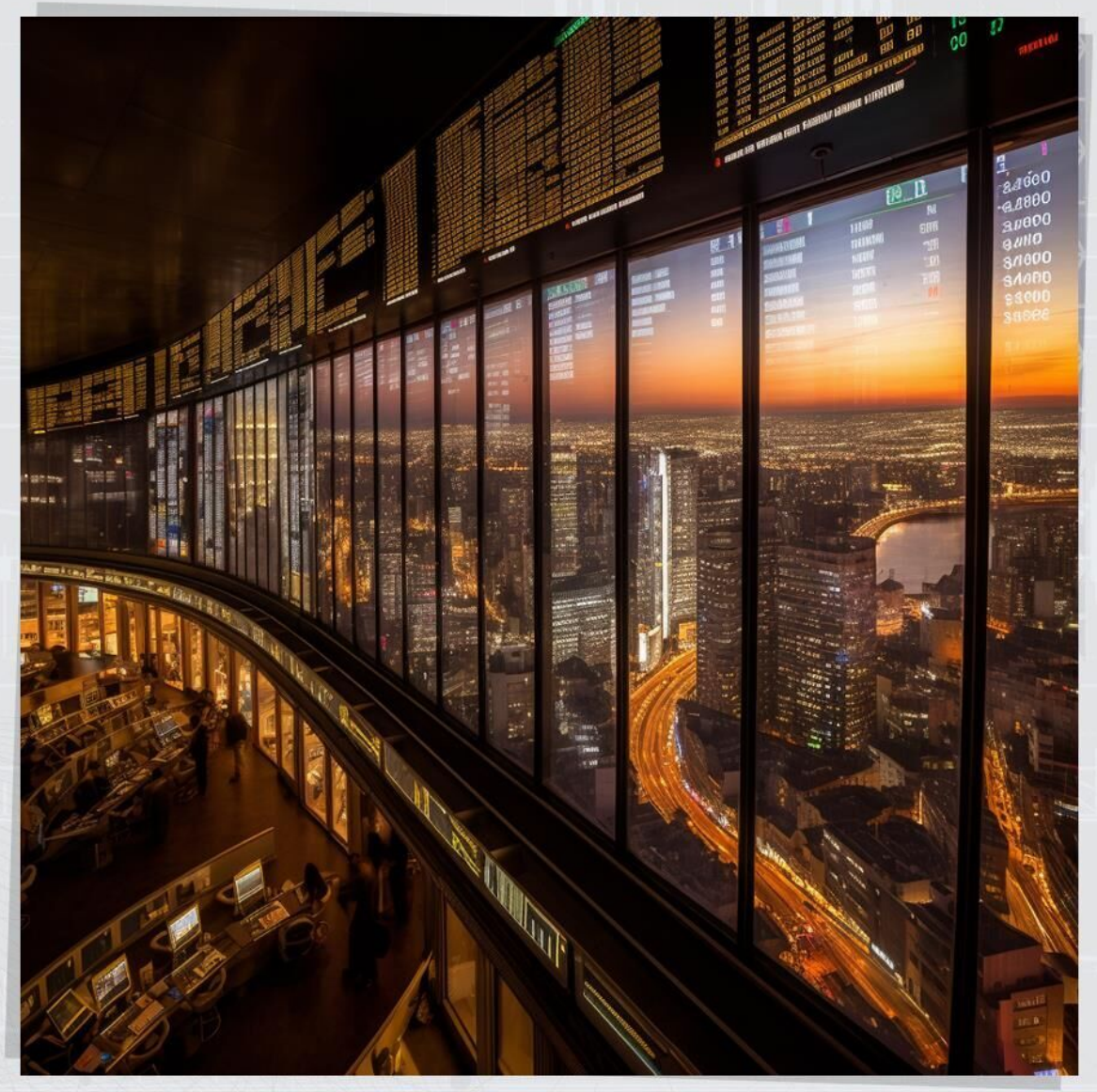
Liquidity Reform in the TASE Indices



Yaniv Hirsch

Indices Unit

The Goal of the Indices' Reform

The objective of the reform is to better the equity indices increase inflows (AUM) potential

Improved liquidity will enhance index stability and increase investments.

In the United States

NIS 7 trillion AUM in the S&P 500 Index alone, out of an overall market cap of NIS 40 trillion



In Israel

The penetration rate of the equity indices is 4% of the market cap of the underlying asset (NIS 40 billion out of the overall market cap of NIS 950 billion)

TA-125 Index

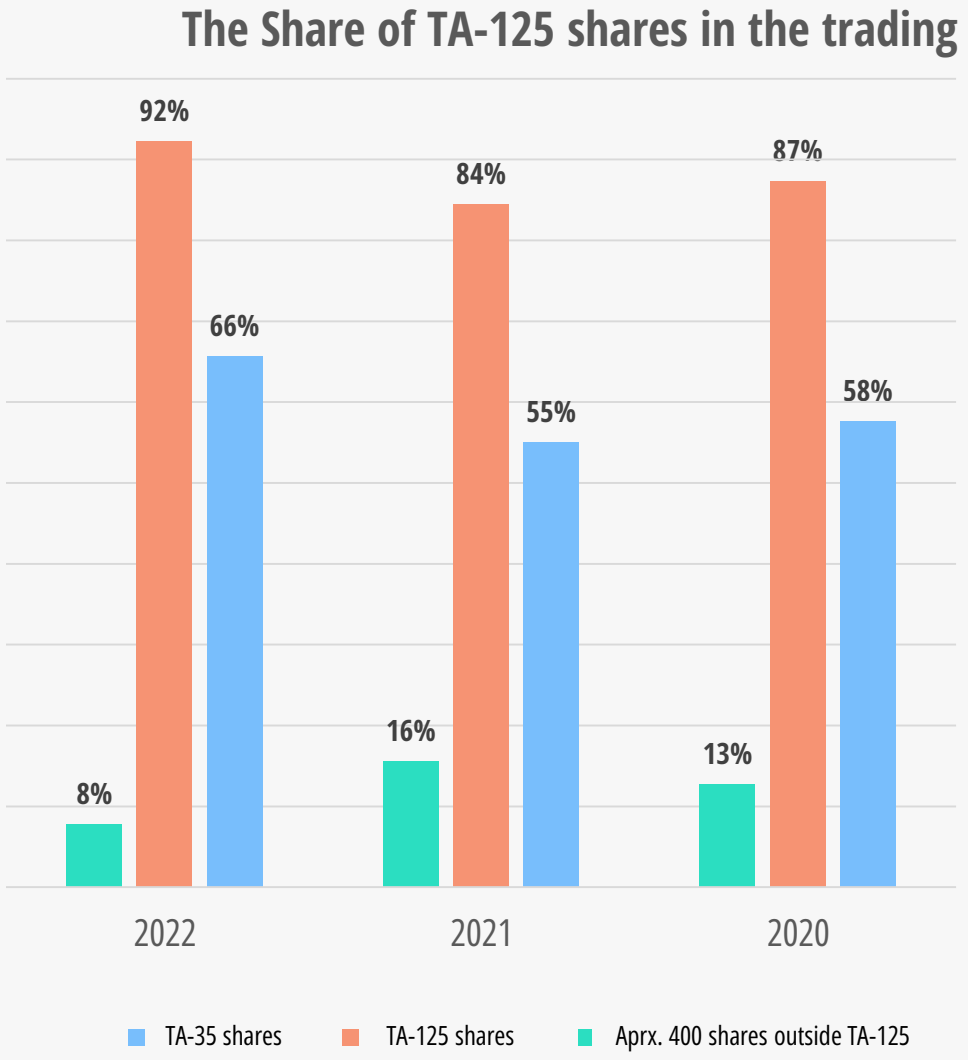
In 2022

- TA-125 Index › **Over 90% of the trading volume**
- TA-35 Index › **66% of the trading volume**
- TA-125 Index › **Absolute increase of 30%**
- TA-35 Index › **Absolute increase of 40%**
- Ta-90 Index › **Increased by only 6%**

The remaining shares, outside the TA-125 Index (aprx. 400 companies):

Account for 8% of the Equity trading volume

Decreased by 40% between 2021 and 2022



Zoom In on Shares Outside TA-125,

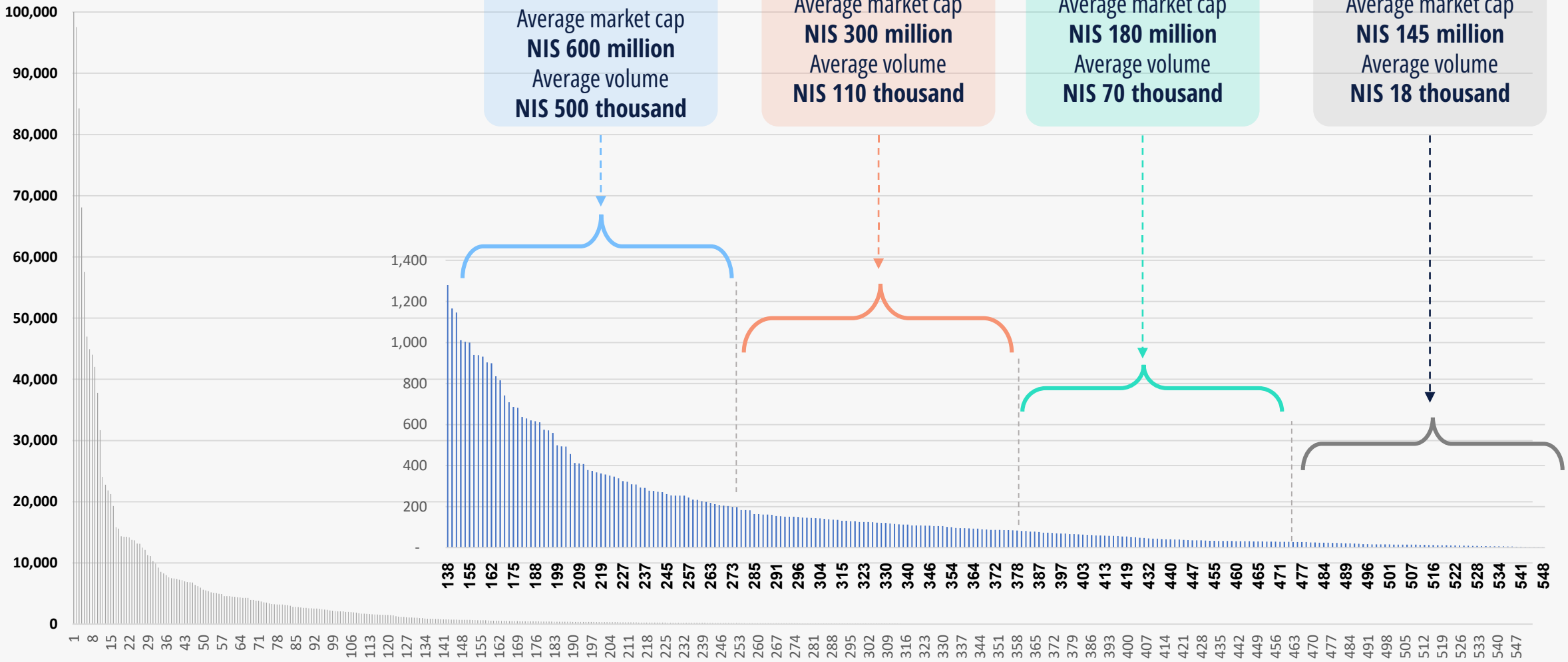
daily trading volume, 2022, NIS thousands

First 100 shares after TA-125
Average market cap
NIS 600 million
Average volume
NIS 500 thousand

Next 100 shares
Average market cap
NIS 300 million
Average volume
NIS 110 thousand

Next 100 shares
Average market cap
NIS 180 million
Average volume
NIS 70 thousand

Last 100 shares
Average market cap
NIS 145 million
Average volume
NIS 18 thousand



Free Float Rate – Not Quite As It Seems...

Private placement of blocked shares to institutional investors

- 34.5% free float before offering
- 40% free float after offering
- Jumps up to 45% free-float bracket
- High demand for buying the security shortly before entering the index

Company A



Introduction of the liquidity component will benefit the indices' investors

Objective limitations of the float calculation method adversely affect the holders

Free Float Rate – Not Quite As It Seems...

Distribution of blocked shares

- The company completes an IPO offering based on a NIS 450 million
- 15% blocked shares are considered free float
- Account for NIS 25 million of the offering (5%)
- Strong demands, no supply or sellers...

Company B



Introduction of the liquidity component will benefit the indices' investors

Objective limitations of the float calculation method adversely affect the holders

Free Float Rate – Not Quite As It Seems...

A number of family members each hold 4.9% and are considered by definition as free float

The free float rate for the purposes of the index is relatively high

Accordingly, the security weight will be significant in the index

In practice, there is insufficient supply for market trading

Company C



Introduction of the liquidity component will benefit the indices' investors

Objective limitations of the float calculation method adversely affect the holders

Transition from Monthly to Quarterly Updates

January	February Rebalance	March	April
May Semi-annual updates	June	July	August Rebalance
September	October	November Semi-annual updates	December

4 updates a year instead of 12

Tel-Div – single annual update in May

TA-125 Fossil Free, TA-Family, TA-Maala – single annual update in November



Rimon Universe – Changes of Threshold Criteria



Liquidity Criteria

Among the 300 shares with the highest median daily trading volume

OR

Among the 300 shares with the highest median trading velocity



Market Cap Criteria

Rated among the 300 shares with the highest average market cap among the shares that are expected to be included in the Tamar Universe



Inclusion in Tamar Universe

A new share or a share included in Tamar – 10% free float rate and NIS 20 million average free float value

OR

Seasoned share or a share not included in Tamar – 15% free float rate , NIS 40 million average free float value



Israeli Orientation



Canceled

- Free float rate
- Free float value
- Average daily trading volume – NIS 50 thousand
- Non-inclusion in low-liquidity list

Updating of the Criteria in the Flagship Indices

TA-SME60

New criterion / easing of existing criterion

Minimum free float rate – 20%

TA-90

New criterion / easing of existing criterion

Minimum free float rate – 20%

TA-35

Cancellation of free float value criterion

Unchanged

TA-35 minimum 30% free float rate

IPO – 20% in the first two years

Updating of the Indices' Weight Caps



TA-Construction

Current weight cap - 5%

New weight cap

10%



TA-Technology

Current weight cap - 5%

New weight cap

10%



TA-RealEstate

Current weight cap - 3%

New weight cap

5%



TA-SME150

New name:

TA-MidCap150

New weight cap

2%

Fast Track Exclusively for New & Large Cap Shares

- For **New** Listing only
- Qualification period – **60 days** instead of 30 days
- Must meet the threshold criteria of the **Rimon Universe**
- Average market cap ranked among the 100 **largest-cap** shares in the Rimon Universe
- **Cancellation of fast track** in semi-annual updates



Cancellation of the Free-Float Brackets Method



- Cancellation of free float rate **brackets** method
- **Exact** free float rate parameter, rounded to a whole percent
- Re-set every **Quarterly** rebalance
- Increase/Decrease in the free float rate is **limited to 5%** in relation to the existing parameter

Liquidity Criterion in Leading Indices Administrators

MSCI

- The definition of liquidity is based on the median annual trading velocity, which is measured in relation to the outstanding shares

S&P

- The FALR ratio is calculated every quarterly rebalancing

$$FALR = \frac{\text{Annual Dollar Value Traded}}{\text{Float Adjusted Market Cap}}$$

- Existing shares in the indices with a free float value of over $ 300 million are required to attain an FALR of more than 50%
- Incoming shares with a free float value of over $ 500 million are required to attain an FALR of more than 90%
- Incoming shares with a free float value of over $ 400 million are required to attain an FALR of more than 150%

Fidelity INTERNATIONAL

- Excluding the bottom quintile of shares with a minimum daily trading volume of $ 10 million
- Downside – all shares with a free float rate below 15% will be eliminated

FTSE

- Semi-annual review – monthly median of average daily trading volume
- Downside – the new methodology will cause shares that experience drastic price hikes to drop in the index

The Liquidity Ratio

New Parameter in the Share's Index Weight Equation

$$W_i^t = \frac{Q_i^t \times F_i^t \times L_i^t \times f_i^t \times P_{ib}^t}{\sum_{i=1}^{n} Q_i^t \times F_i^t \times L_i^t \times f_i^t \times P_{ib}^t}$$

- W_i^t — Share's weight in the index
- Q_i^t — Index adjusted number of shares
- F_i^t — Free float rate
- L_i^t — Liquidity bracket
- f_i^t — Weight cap factor
- P_{ib}^t — Price

Parameters for Determining the Quarterly Liquidity Bracket

Trading velocity = trading volume of units **on TASE** divided by the index adjusted number of shares on the same day

Trading Volume

1. Calculation of the **daily trading volume** every day in the past 6 months for all shares traded on TASE (excluding shares under suspension or on the maintenance list)
2. Calculation of a **median daily trading volume** for all relevant shares in the aforesaid period
3. Classification of shares into the appropriate **median daily trading volume group**

Trading velocity

4. Calculation of the **trading velocity** every day in the past 6 months for all shares traded on TASE (excluding shares under suspension or on the maintenance list)
5. Calculation of the **median trading velocity** in the aforesaid period
6. Classification of shares into the appropriate **median trading velocity group**

Liquidity Bracket

7. The liquidity bracket will be the ratio of the group, determined as the greater of the **median trading volume** and the **median trading velocity**

Calculation of the Liquidity Brackets in the Indices

On the parameter rebalancing date – the liquidity bracket of a share will be updated by a maximum of **one bracket**.

The H liquidity bracket **in the first 90 days** of the share's inclusion in an index

Fixed every six months on the record date of the semi annual update

Calculated every quarter based on six-months' data

On every rebalancing date, the liquidity ratio of each share will be determined for calculating its weight in the indices until the next rebalance (in the following quarter)

The liquidity ratio for calculating the weight of a share will be determined based on the assignment of the share to the group with the **highest** liquidity ratio of (T) to (V).

Group	Median trading velocity (T)	Median daily trading volume (V)	Trading velocity group (T)/ daily trading volume group (V)	Liquidity ratio
A	0-10%	0-10%	$V_{10\%}$ or $T_{10\%}$	**1**
B	10-20%	10-20%	$V_{20\%}$ or $T_{20\%}$	**0.8**
C	20-25%	20-25%	$V_{25\%}$ or $T_{25\%}$	**0.6**
D	25-35%	25-35%	$V_{35\%}$ or $T_{35\%}$	**0.45**
E	35-45%	35-45%	$V_{45\%}$ or $T_{45\%}$	**0.35**
F	45-60%	45-60%	$V_{60\%}$ or $T_{60\%}$	**0.25**
G	60-80%	60-80%	$V_{80\%}$ or $T_{80\%}$	**0.2**
H	80-100%	80-100%	$V_{100\%}$ or $T_{100\%}$	**0.1**

Sample Calculation of Liquidity Ratio

Liquidity group	Range	Bottom threshold	Share rating	Median trading velocity group- T	Median daily trading volume group – V	Liquidity ratio
A	0-10%	10%	55	**142**	**4,152,193**	1
B	10-20%	20%	111	**96**	**1,356,751**	0.8
C	20-25%	25%	138	**80**	**657,571**	0.6
D	25-35%	35%	194	**55**	**199,270**	0.45
E	35-45%	45%	249	**36**	**89,218**	0.35
F	45-60%	60%	333	**17**	**32,488**	0.25
G	60-80%	80%	444	**5**	**7,055**	0.2
H	80-100%	100%	555	**-**	**-**	0.1

Sample Calculation of Liquidity Ratio

ISIN	Security name	Trading velocity	Group	Average daily trading volume	Group	Benchmark group	Liquidity ratio
604611	Leumi	180	A	91,212,983	A	**A**	1
746016	Strauss	66	D	6,650,974	A	**A**	1
1090315	Dimri	66	D	3,144,074	B	**B**	0.8
1085208	Compugen	121	B	481,434	D	**B**	0.8
1166917	Supergas	10	G	116,173	E	**E**	0.35
1103571	Schnapp	13	G	33,431	F	**F**	0.25
1179993	Rav Bariach	3	H	10,161	G	**G**	0.2

Data as of 10.12.22

The Indices' Stability is of high Priority

Checks and balances have been installed throughout the methodology

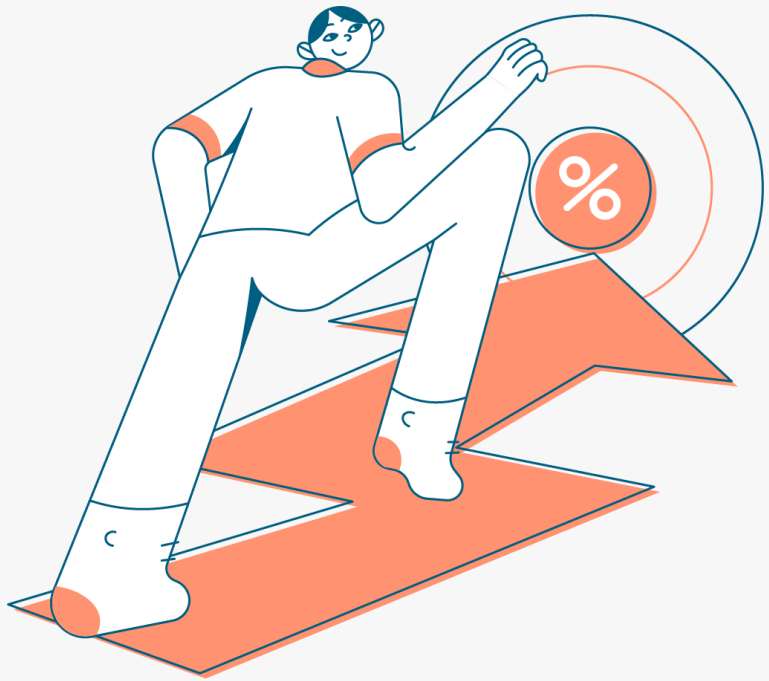
- A quarterly rebalance will replace the monthly rebalance
- Fast track – only for a company that is ranked among the 100 largest-cap shares and only twice a year (on quarterly rebalance)
- The free-float rate brackets have been canceled to eliminate the abuse of the mechanism
- Change in the free-float rate is limited to a maximum of 5% per rebalance (quarterly)
- The liquidity calculations are based on the median in a six-month period. Limited impact of irregular trading days on the liquidity bracket.
- The liquidity bracket may only be changed by one bracket every rebalancing.
- A new share in the indices starts out at the lowest bracket and moves up one bracket every quarter up to the appropriate bracket.

Gradual Inclusion of Shares to Indices that are considered Highly Investable Indices

- The weight cap will be increased by 1% each quarter until the share's weight cap matches the full weight cap of the index
- The weight cap of a share not included in TA-125 that joins an highly investable index will be 1%

Highly Investable indices (aprx. NIS 200 million)

- TA-SME60
- TA-90
- TA-125
- TA-35
- TA-Growth
- TA-Technology
- TA Sector-Balance
- Tel-Div
- TA-Finance
- TA-Investment Properties in Israel
- TA-Insurance
- TA-Construction
- TA-RealEstate



Tools to increase Liquidity

Don'ts

- **Avoid distribution to "Ingenuine Public"**
  Blocked investors, holders of 4.9%, long-term institutional investors etc.
- Distribution to non-floating parties does not increase the traded quantity in terms of units, but does increase the denominator of the trading velocity
- OTC transactions are not taken into account in determining the trading velocity and the median liquidity



Dos

- Appointment of an **effective market maker** that meets the criteria for significant market making (assistance will be offered by the Trading Department).
- **Distribution of shares** exclusively **to investors with high trading velocity**, such as mutual funds, portfolios management firms, retail etc.
- **Education and content –** content presentations for analytics departments at banks and investment houses, capital market media bodies and the full spectrum of investors.
- **Appointment of IR manager** (if not already appointed)
- **Reaching out to foreign investors –** analyses in English, ESG report, publication Annual reports in English and on fixed dates and setting up meetings with foreign investors

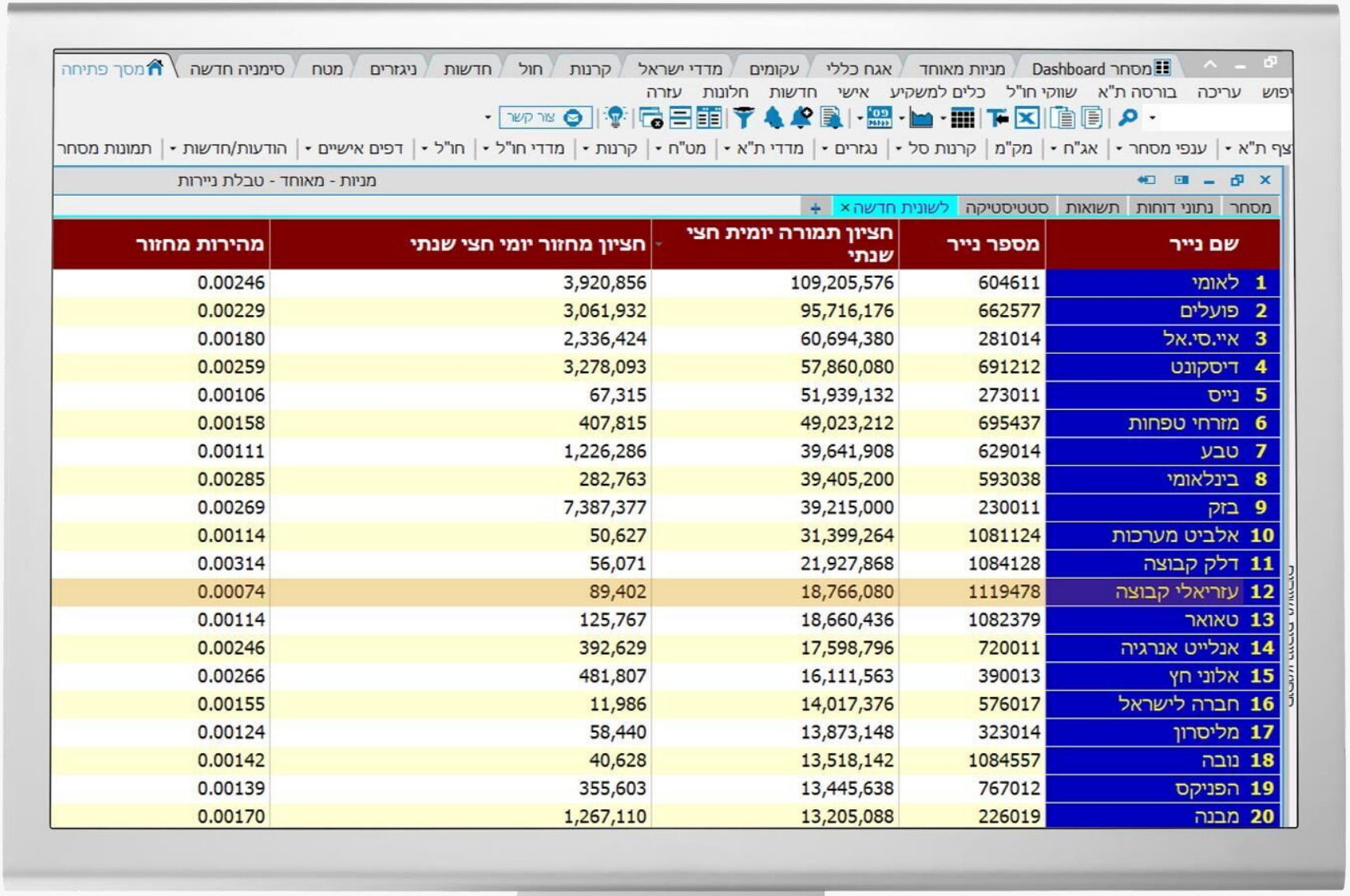
Tools for Examining the Liquidity of the Company (MBO)



Expansion of the order book to fully present all trading layers in real time

- Details of all orders in the layer
- Presentation of all layers in all prices (compared to 5 currently)
- Presentation of my order in the schedule of orders
- Liquidity in the book is not limited to the top layers

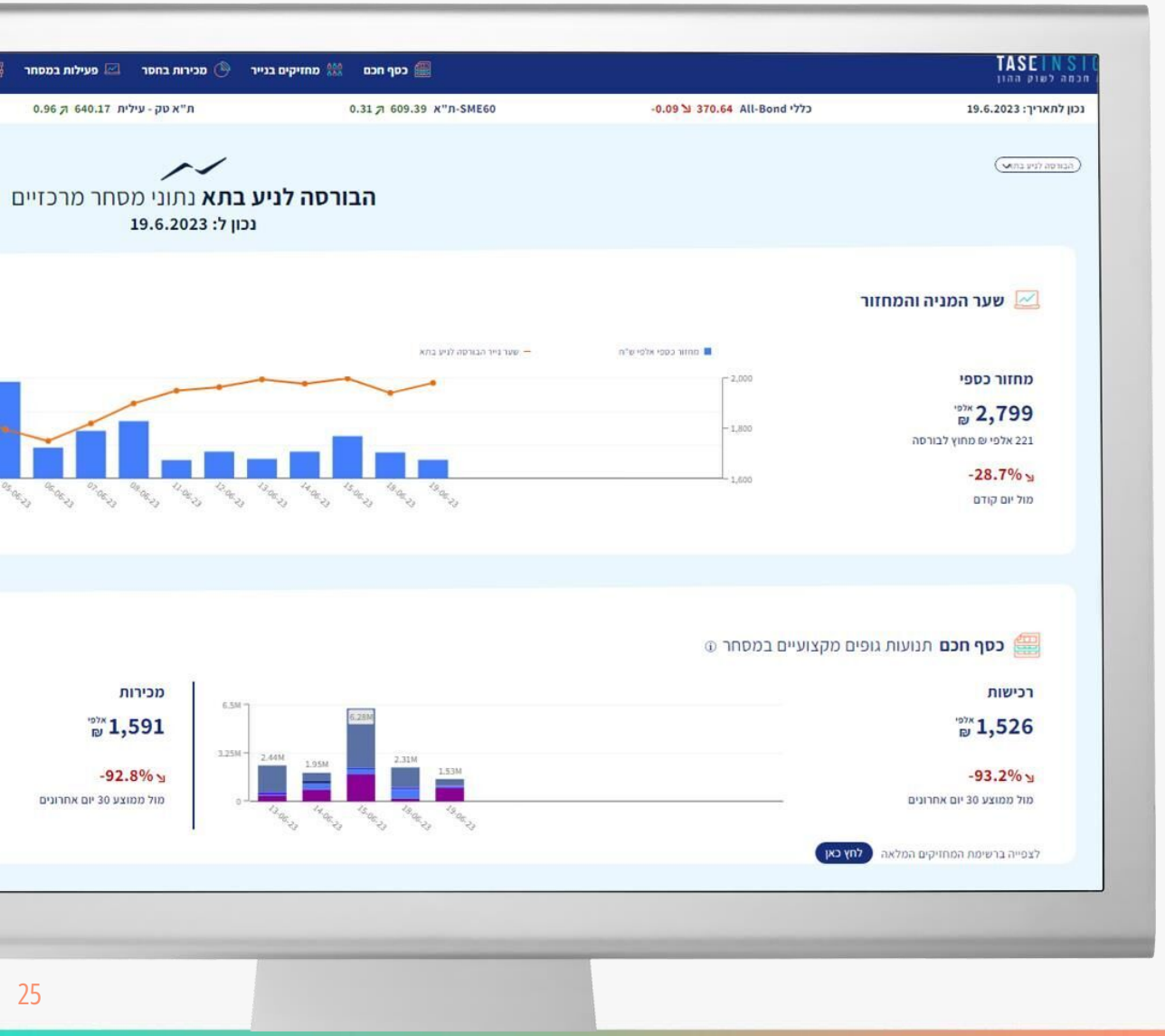
Tools for Examining the Company's Liquidity Status



שם נייר	מספר נייר	חציון תמורה יומית חצי שנתי	חציון מחזור יומי חצי שנתי	מהירות מחזור
1 לאומי	604611	109,205,576	3,920,856	0.00246
2 פועלים	662577	95,716,176	3,061,932	0.00229
3 איי.סי.אל	281014	60,694,380	2,336,424	0.00180
4 דיסקונט	691212	57,860,080	3,278,093	0.00259
5 נייס	273011	51,939,132	67,315	0.00106
6 מזרחי טפחות	695437	49,023,212	407,815	0.00158
7 טבע	629014	39,641,908	1,226,286	0.00111
8 בינלאומי	593038	39,405,200	282,763	0.00285
9 בזק	230011	39,215,000	7,387,377	0.00269
10 אלביט מערכות	1081124	31,399,264	50,627	0.00114
11 דלק קבוצה	1084128	21,927,868	56,071	0.00314
12 עזריאלי קבוצה	1119478	18,766,080	89,402	0.00074
13 טאואר	1082379	18,660,436	125,767	0.00114
14 אנלייט אנרגיה	720011	17,598,796	392,629	0.00246
15 אלוני חץ	390013	16,111,563	481,807	0.00266
16 חברה לישראל	576017	14,017,376	11,986	0.00155
17 מליסרון	323014	13,873,148	58,440	0.00124
18 נובה	1084557	13,518,142	40,628	0.00142
19 הפניקס	767012	13,445,638	355,603	0.00139
20 מבנה	226019	13,205,088	1,267,110	0.00170

TASE Insight

One-Stop-Shop for all local capital market information and analyses



An IT system that supports the tracking of prices, trading volumes and market cap for all of the securities traded on TASE

- **Monitoring foreign and local holders that are subject to reporting requirements**
- **Smart money activity analyses –** The system supports the tracking of developments in trading volumes and transactions in securities, by type of trader
- **Comparative analysis** of the performance of the company's securities against the changes in the leading indices, competitors and sectors
- Tracking short-sale **balances data**

Thank you!

TASE Indices Team



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