

Market Consultation

To: Market Participants
From: Indices Department
Date: 14 December 2018
Subject: **FTSE/JSE Market Index Design**

1. Introduction

The broad market indices in the FTSE/JSE Africa Index Series have not fundamentally changed since the introduction of the Capped and Shareholder Weighted index suites in 2004. The Capped SWIX All Share index was introduced in 2016. Market indices are used for a broad range of purposes, including analytics, fund benchmarks and index products, such as tracking funds or derivatives. Based on a number of recent discussions in the market, FTSE/JSE is considering the value of a detailed review of the current equity market index offering. This consultation paper sets out options that may be considered to transform the existing market index methodology.

2. Background

Over the course of 2018, there has been an increasing amount of dialogue regarding the suitability of the current market index design for local equity investors. There have been a number of articles in the financial press, and these topics continue to be raised in discussions with issuers, sell-side participants and buy-side participants. Many of the discussions have been around the most appropriate way for indices to deal with some fundamental market constructs, such as:

- Steadily increasing concentration risk from a small number of high weight constituents
- Practical implications, and unintended consequences, of capping
- Inconsistent treatment of foreign companies (grandfathered vs. more recent listings) in terms of index free float and therefore index weighting
- Diminishing differences between All Share weights and SWIX All Share weights after the removal of grandfathered companies such as SAB Miller plc and Old Mutual plc

In short, the question to be answered is “what would make the best market index for local equity investors?”

FTSE/JSE suggests a participatory approach with index users to unpack some of these concerns, reach some broad consensus on an answer to the market index design question, and potentially implement enhancements in the FTSE/JSE Africa Index Series.

3. Market Index Selection

The Capped SWIX All Share (J433) was introduced in November 2016 and the take-up from funds on the index has been significant.

Even though the capping methodology is not always popular with index users, the Capped SWIX All Share index has been selected as a benchmark for numerous funds. The index was designed as a solution to address concentrated investment exposure to large individual companies and not necessarily to be the market index of choice in the longer run. The fact that some significantly sized funds have moved their benchmarks away from the SWIX All Share (J403) index to the capped version, confirms that the uncapped SWIX All Share has some deficiencies as a broad market index.

4. Roadmap

The roadmap followed to review the FTSE/JSE market index offering is set out below.

4.1 Phase 1

Firstly, FTSE/JSE would raise awareness with the FTSE/JSE Advisory Committee (AC) regarding the intended review of the market index design. Secondly, FTSE/JSE had to do some preparatory work that included, but was not limited to:

- Researched the academic characteristics of an effective modern market index
- Provided a critical overview of the current FTSE/JSE market index offering
- Appraised the current users of FTSE/JSE market indices, how they are used and why they were selected

Thirdly, FTSE/JSE would look at how the tools currently available in the index series could be leveraged to design more suitable market indices. Examples could include SA Investor weighting, ESG hurdles, Factor Tilts or Equal Weighting.

Fourthly, consideration would be given to how market indices in various global markets have evolved their design, with a specific focus on emerging markets.

Lastly, the South African regulatory framework constraints and its impact on potential improvements to market indices would be considered. An example of this is the FSCA [Consultation Paper](#) on the Implementation of a Financial Benchmark Regulatory Regime issued on 10 September 2018.

4.2 Phase 2

FTSE/JSE would like to engage with market participants as widely as possible, so gathering information on a market consultation and working group basis would be most suitable.

FTSE/JSE will evaluate the feedback from this market consultation and the working groups and produce a “Next Steps” outcome which will inform the third phase of the project. The FTSE Russell Product Governance Board would need to approve any proposed changes to the FTSE/JSE market indices before they could be finalised.

5. Progress

Phase 1, as set out in the roadmap has been completed. Awareness was raised with the AC regarding the intended review of the market index design at the June and September 2018 meetings. Secondly, FTSE/JSE undertook to do some preparatory work to provide a critical overview of the current FTSE/JSE market index offering. This work is set out in this consultation paper.

Thirdly, FTSE/JSE undertook to look at how the tools currently available in the index series could be leveraged to design more suitable market indices. Examples could potentially include SA Investor weighting or up-weighting foreign companies in the market index. These tools are unpacked further in this consultation paper.

Fourthly, consideration was given to how market indices in various global markets have evolved their design, with a specific focus on emerging markets.

Phase 2, as set out in the roadmap, is now being launched by engaging market participants as widely as possible. A workshop with ASISA members was held during September, where awareness was raised with regards to the proposed review of the market indices. Awareness was also raised with a small pilot group of market participants during September.

6. Emerging Market Indices

FTSE/JSE researched comparable emerging market indices to determine the characteristics of their indices. The countries included in the research were:

- Singapore
- Turkey
- Russia
- India
- Brazil
- China
- Australia

Please refer to Appendix 3 for the full list of emerging market indices characteristics.

The emerging market indices are aligned to the FTSE/JSE All Share in that they are market cap weighted, some by full market cap and others by free float adjusted market cap, have a liquidity screen and a free float component. The minimum free float requirement for these indices ranges from 5% to 30%. Most of the emerging market indices are not capped, but the Turkey (10%), Russian (15%) and Australian (15%) indices are capped.

For the Russian indices an additional weighting factor is applied, depending on the constituent's liquidity factor, e.g. if the Liquidity factor is smaller than 1.25% a weighting factor of zero is applied and when the liquidity factor is larger or equal to 10%, the weighting factor will be one. This effectively acts to down-weight companies that are relatively illiquid. For the Singapore and Indian indices no foreign ownership restrictions are applied. In Turkey there is only one dual listed company. The Shanghai and Shenzhen exchanges do not allow for the listing of foreign companies.

Unique characteristics of the emerging market indices include that liquidity may be adjusted up to 0.01% at a review for constituents in the Singapore index. For the Russian indices, constituents require a minimum index weight of 0.25% for inclusion and when the weight falls below 0.2%, the constituent is removed. In the Indian index constituents are selected on average daily total market cap, annualised traded value and trading frequency. For the China index companies need to be listed for at least six months, unless full and free float market cap is within top 10 of all listed stocks.

Many of these emerging market index principles are captured by specific rules within the FTS/JSE indices, and the market indices are broadly aligned in terms of methodology, despite a range of local nuances.

7. Current FTSE/JSE Market Index Offering

Factors impacting on the suitability of the current market index design for local equity investors include steadily increasing concentration risk from a small number of high weight constituents and the inconsistent treatment of foreign companies (grandfathered vs. more recent listings) in terms of index free float. There are also diminishing differences between the All Share weights and SWIX All Share weights following the removal of grandfathered companies such as SAB Miller plc and Old Mutual plc.

The current FTSE/JSE All Share offering includes the following indices:

Index Code	Index Name	Rank	Weight	Capping	Liquidity
J203	All Share	Gross Mcap	Net Mcap	No	Yes
J303	Capped All Share	Gross Mcap	Capped Net Mcap	Yes – 10%	Yes
J403	SWIX All Share	Gross Mcap	SWIX Mcap	No	Yes
J433	Capped SWIX All Share	Gross Mcap	Capped SWIX Mcap	Yes – 10%	Yes

Table 1: FTSE/JSE All Share offering

All four versions of the All Share indices are ranked by gross market cap and therefore the constituents in these indices are the same, the difference is in the weighting of the constituents. The difference between the All Share (J203) and SWIX All Share (J403) indices lie in the weighting of the constituents that are done on net market cap and SWIX market cap respectively. The SWIX free float represents the proportion of a constituent's share capital that is held in dematerialised form and registered on the South African share register. The SWIX free float will not exceed the FTSE/JSE company free float. In both indices companies treated as foreign in the Index Series will have a free float that represents the holding on the South African register. The constituents of the relevant Top 40 and tradable indices derived from a specific market index will utilise the same free float as the market index.

The free float for grandfathered companies in J203 represents the shareholder breakdown, and the free float in the SWIX represents the number of shares on the South African share register. Essentially the only difference between the All Share and SWIX All Share is the weight of grandfathered companies and companies with listed and sponsored depository receipt programs. It is important to note that all new companies, classified as foreign for index purposes, utilise a SWIX market cap in all indices across the Index Series and this is why foreign companies do not contribute to a difference between J203 and J403.

The table below provides a list of grandfathered companies in the All Share.

Alpha	Instrument	Gross MCap (Rm)	Free Float	SWIX Free Float	Net MCap (Rm)	SWIX MCap (Rm)	Down-weight in SWIX
BIL	BHP Billiton	601,771	98%	16%	591,942	94,268	15.93%
CFR	Compagnie	525,915	98%	16%	513,624	84,410	16.43%
AGL	Anglo American	425,435	70%	37%	298,525	159,313	53.37%
MNP	Mondi Plc	120,025	100%	26%	119,633	30,646	25.62%
INP	Investec PLC	59,634	96%	52%	57,234	31,246	54.59%
ITU	Intu Properties Plc	49,323	65%	37%	31,858	18,191	57.10%
LON	Lonmin PLC	2,890	94%	38%	2,715	1,086	40.01%

Table 2: List of grandfathered companies

The table below provides a comparison of the current All Share weights on 23 October 2018. The highlighted companies represent the five largest weights in each index.

Alpha	Instrument	J203 Weight	J303 Weight	J403 Weight	J433 Weight
NPN	Naspers	17.45%	9.24%	21.67%	9.17%
BIL	BHP Billiton	9.05%	9.95%	1.79%	2.08%
CFR	Compagnie Fin Richemont AG	7.85%	8.64%	1.60%	1.86%
AGL	Anglo American	4.57%	5.02%	3.02%	3.51%
SOL	Sasol	3.90%	4.29%	4.85%	5.62%
SBK	Standard Bank Group	3.06%	3.37%	3.80%	4.41%
FSR	Firststrand Limited	2.90%	3.19%	3.61%	4.18%
BTI	British American Tobacco PLC	2.51%	2.76%	3.11%	3.61%

Table 3: Comparison of All Share weights

Key: J203 – All Share; J303 – Capped All Share; J403 – SWIX All Share; J433 – Capped SWIX All Share

8. Available Tools to Leverage

Two potential tools that could be introduced are SA Investor indices and up-weighting foreign companies in the index series. SA Investor is an approach that weights constituents based on local South African resident shareholdings, thereby excluding significant foreign-owned holdings from the market index weights. This is different to the current SWIX methodology which is based on the South African share register, rather than the sub-set of shares held by South African residents. The SA Investor index methodology excludes the grandfathering of index constituents, thus treating all companies consistently.

The SWIX All Share index could potentially be replaced by the SA Investor index, thereby creating a market index that is reflective of the aggregate holdings of South African equity investors, and therefore suitable as a market index for the local investor on their local equity allocation.

The J203 and J303 could possibly be amended to treat foreign companies consistently, by up-weighting all foreign companies and not just the grandfathered companies. “Up-weighting” refers to using the global market cap without adjusting for the South African register, i.e. in effect removing the down-weighting of foreign companies currently applied in the All Share index. As an example, BTI as a foreign company will be up-weighted in the market index by reflecting the global market cap and not the South Africa register adjustment.

The table below shows the weights of the three proposed approaches, with their capped versions:

- SA Investor: All constituents are weighted based on their aggregate SA-resident shareholding, adjusted for free float.
- All Foreign Up-weight: All constituents have a J203 free float, but all foreign companies are weighted consistently at their full global free float, with no register or investor nationality down-weighting.
- Current SWIX: All constituents have a J403 free float, with all companies weighted at the minimum between their free float and SA register.

The highlighted companies represent the five largest weights in each proposed index, before and after the application of capping factors (10%). The detail of the constituent weights is available in Appendix 1.

Alpha	Instrument	SA Investor weight	Foreign Up-weight	SWIX	SA Investor weight Capped	Foreign Up-weight Capped	SWIX Capped
NPN	Naspers	14.57%	12.52%	23.19%	9.98%*	9.97%*	9.97%*
SOL	Sasol	5.53%	2.73%	5.05%	5.83%	3.08%	5.92%
BTI	British American Tob	4.61%	15.02%	2.87%	4.86%	9.28%*	3.37%
AGL	Anglo American	4.42%	3.01%	2.98%	4.66%	3.40%	3.49%
FSR	Firststrand Limited	4.28%	2.04%	3.78%	4.51%	2.30%	4.43%
ANH	Anheuser-Busch	0.50%	9.63%	0.38%	0.52%	9.81%*	0.44%
GLN	Glencore	0.66%	7.01%	0.51%	0.70%	7.91%	0.60%
BIL	BHP Billiton	2.89%	6.13%	1.81%	3.05%	6.92%	2.12%
SBK	Standard Bank	2.92%	2.07%	3.84%	3.08%	2.34%	4.50%

Table 4: Comparison of proposed indices weights

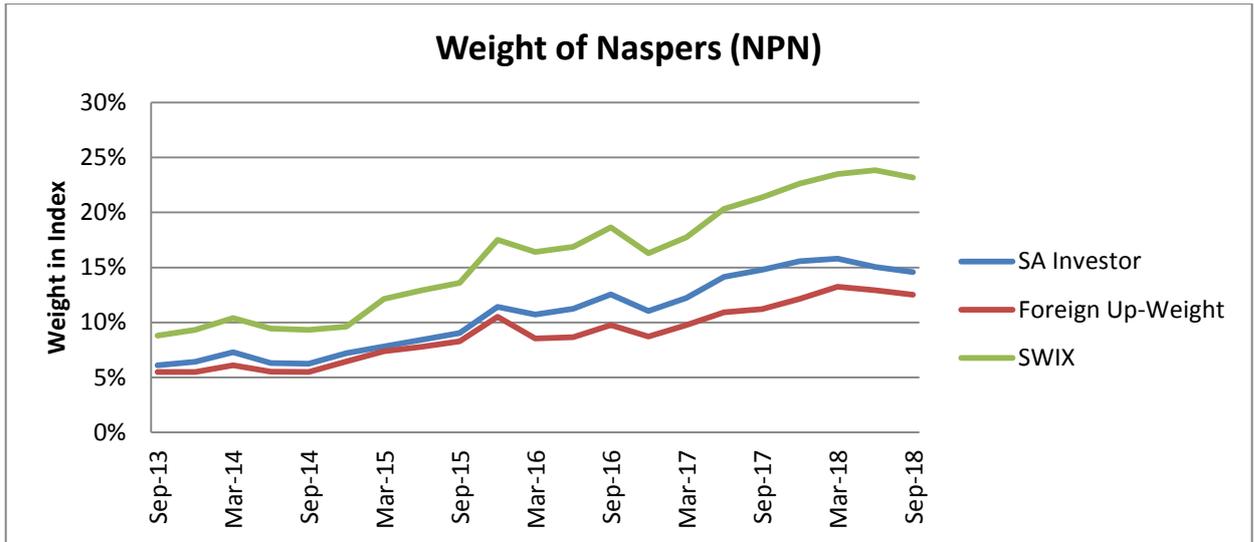
* Capped constituent

The three graphs below depict the weight of three different types of companies in the three proposed indices, prior to the application of capping.

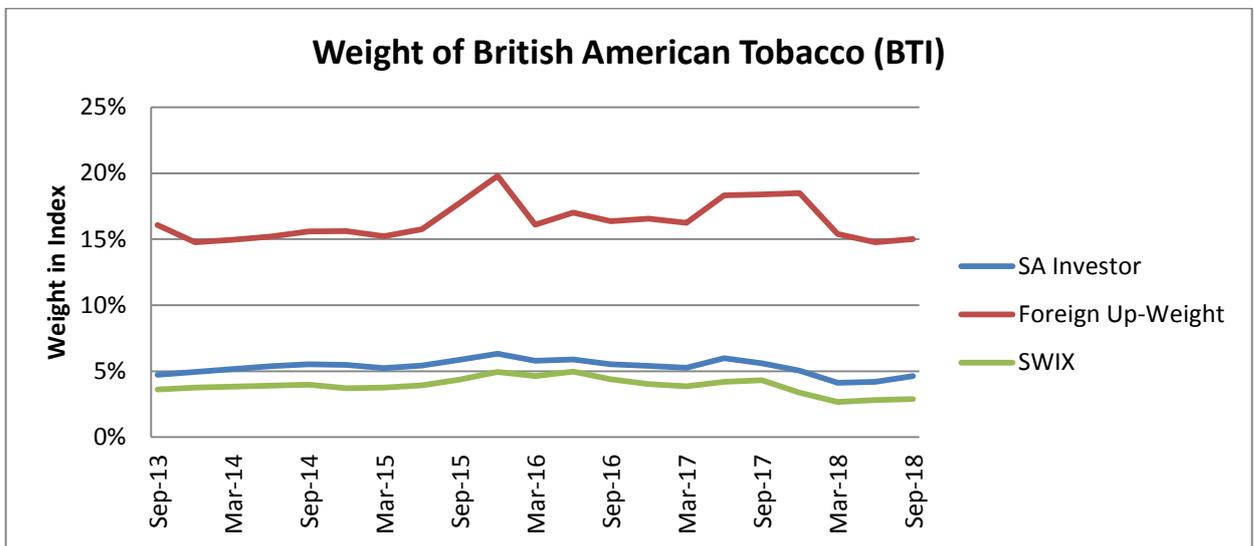
Naspers is classified as domestic for all index purposes, which is the standard for local domestic listings. There are thus no additional restrictions on NPN's index inclusion, other than the normal rules specified in the Index Ground Rules, and the company is currently included in the index at its full market capitalisation, adjusted for free float.

British American Tobacco is an inward listing and is classified as a domestic asset, but foreign for index purposes. BTI is an example of an inward listed company that was classified by SARB as foreign for index purposes. BTI is currently included in the index series, but at a reduced weight. FTSE/JSE does not use BTI's total global market capitalisation in the index series, but rather the market capitalisation of shares registered on the SA share register, as maintained by Strate.

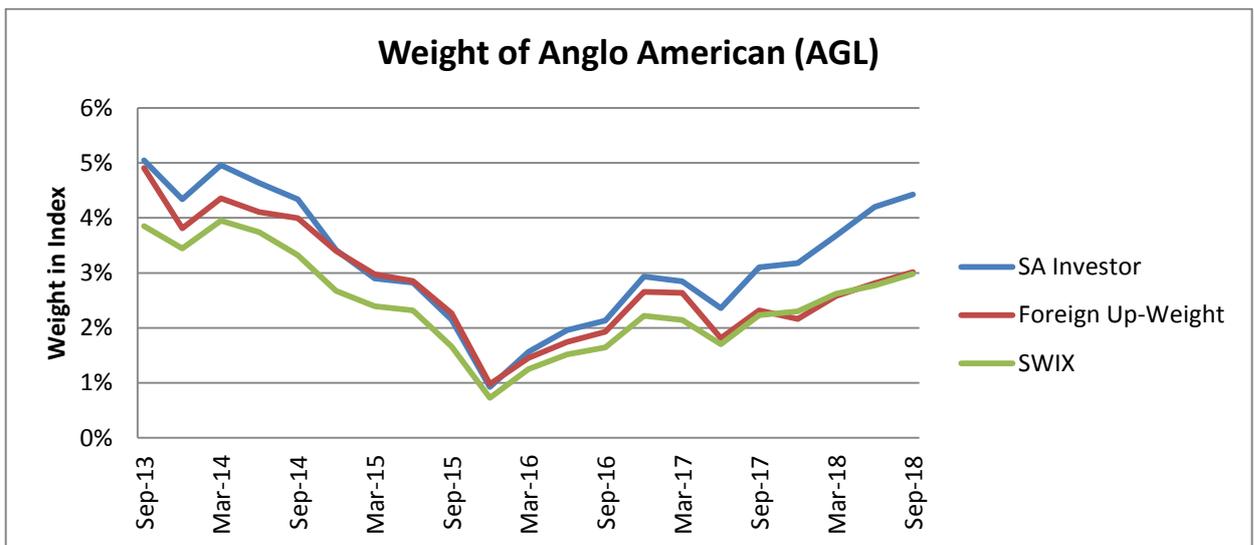
Anglo American is an example of a grandfathered company and is a seemingly foreign company, but treated as domestic for all purposes, due to its South African roots.



Graph 1: Weight of Naspers in the three proposed indices

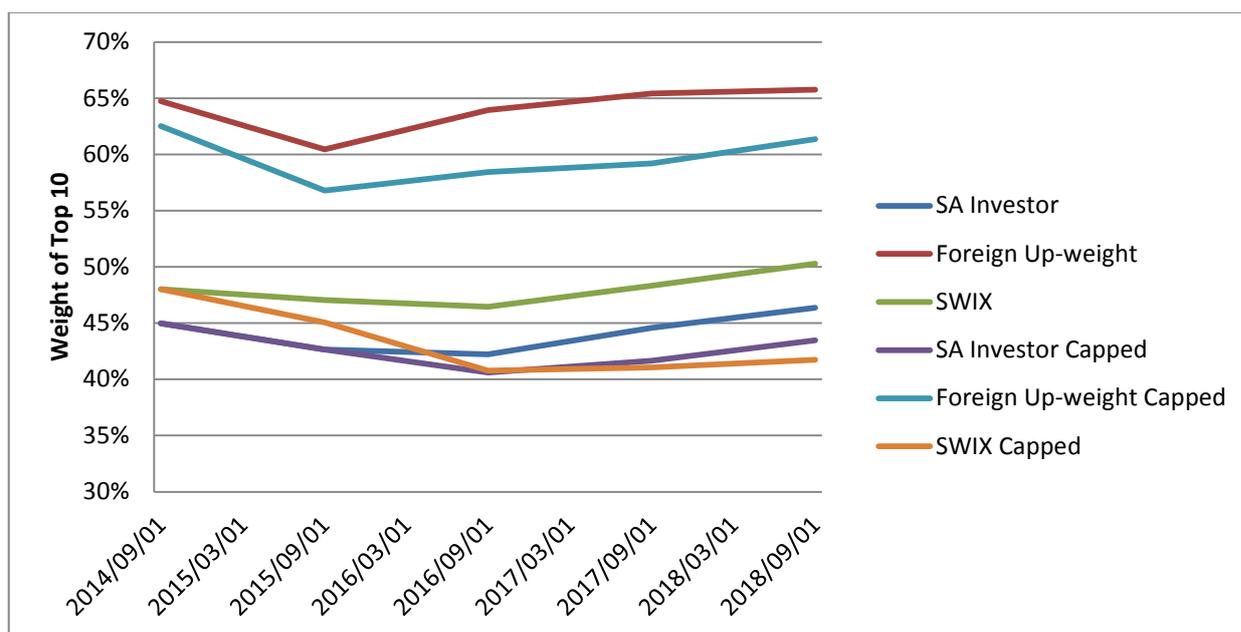


Graph 2: Weight of BTI in the three proposed indices



Graph 3: Weight of AGL in the three proposed indices

The graph below shows the sum of the weights of the Top 10 constituents in each index over five years:



Graph 4: Weight of Top 10 constituents

The table below shows the split of foreign and local companies in the current All Share and the proposed market indices. Local companies in this context have a South African ISIN assigned (“ZAE”).

	Sep 2018		Sep 2017		Sep 2016		Sep 2015		Sep 2014	
	Foreign	Local								
All Share (J203)	31.51%	68.49%	34.60%	65.39%	39.98%	60.01%	40.31%	59.68%	41.66%	58.33%
SA Investor weight	24.40%	75.60%	29.21%	70.79%	32.07%	67.93%	28.40%	71.60%	29.01%	70.99%
Foreign Up-weight	54.00%	46.00%	58.24%	41.76%	59.37%	40.63%	52.02%	47.98%	54.17%	45.83%
SWIX	16.14%	83.86%	21.01%	78.99%	23.64%	76.36%	21.91%	78.09%	23.04%	76.96%
SA Investor weight Capped	25.71%	74.29%	30.75%	69.25%	32.98%	67.02%	28.40%	71.60%	29.01%	70.99%
Foreign Up-weight Capped	52.22%	47.78%	53.70%	46.30%	54.39%	45.61%	47.57%	52.43%	51.28%	48.72%
SWIX Capped	18.91%	81.09%	23.97%	76.03%	26.14%	73.86%	22.74%	77.26%	23.04%	76.96%

Table 5: Foreign and Local Split

The table below shows the SA sector weights breakdown for SA Resources, SA Industrials and SA Financials for the current four market indices, the three proposed indices and their capped versions. Further SA sector details are provided in Appendix 2.

	J203	J303	J403	J433	SA Investor	Foreign Up-weight	SWIX	SA Investor Capped	Foreign Up-weight Capped	SWIX Capped
SA Resources	25.56%	28.29%	17.11%	20.08%	20.39%	25.76%	17.05%	21.48%	29.08%	19.98%
SA Industrials	49.35%	43.94%	52.92%	44.75%	45.14%	56.36%	53.10%	42.19%	50.74%	45.04%
SA Financials	25.08%	27.76%	29.96%	35.16%	34.47%	17.88%	29.85%	36.32%	20.18%	34.98%

Table 6: SA Sector Weights

9. Discussion Points / Questions

A review of the existing market index design, in collaboration with market participants, would ensure the most effective outcome from which the final proposal can be created and would further ensure that the market index is aligned with market requirements. The ultimate goal is to provide to local equity investors the most appropriate and effective market indices, a fundamental building block of a healthy investment ecosystem.

FTSE/JSE requests comments from the market regarding concerns with the proposal to improve the market index offering. The questions below are provided to guide the discourse:

- Details of respondent, including company name and industry or sector.
- Which of the existing four market indices do you use currently and for what purpose?
- How do you use the current All Share index (J203)?
- What criteria do you require from a market index?
- What specific concerns impact on your current or potential usage of these indices?
- How would changing the existing market index methodology impact on your business model? Should there be a fundamental change to the market index methodology, how much advance notice would you expect from FTSE/JSE?
- Which proposed market index do you prefer as possible replacement for the existing FTSE/JSE All Share Index (J203)?
 - SA Investor
 - All Foreign Up-weight
 - Current SWIX
 - Unchanged
- Which proposed market index do you prefer as possible replacement for the existing FTSE/JSE SWIX All Share Index (J403)?
 - SA Investor
 - All Foreign Up-weight
 - Current SWIX (i.e. unchanged)
- Would you rather prefer only one main market index, with a capped and uncapped version? This would see the All Share methodology and SWIX All Share methodology replaced with a single methodology.
- Would you prefer a phased approach for implementing the methodology change? If so, how should the transition timelines be determined?
- What concerns or recommendations do you have regarding the proposed indices? Do you have concerns regarding the enhancements as discussed in this market consultation?
- Should foreign companies be treated differently to domestic companies? Please provide reasons.
- Do you require any further data to support your decision?

10. Responding to the Consultation

It is important to FTSE/JSE to be aware of the impact on clients as well as any unintended consequences of the change. Therefore, FTSE/JSE requests comments on the proposed offering and questions included in this market consultation.

Please provide us with your comments and suggestions by 31 January 2019 to the following email address:

indices@jse.co.za

FTSE/JSE would also like to meet with market participants to discuss any further comments, suggestions or concerns. Please contact us at the email address provided above, should you wish to arrange a meeting in this regard. All feedback received by 31 January 2019 will be carefully considered before making any final decisions, and presented to the FTSE/JSE Advisory Committee Meeting.

When determining the timeline for the implementation of any decision, FTSE/JSE is mindful of the broad usage of these indices in the market and the need to provide appropriate notice. This document is not confidential and should be distributed as widely as possible to all stakeholders.

Yours Sincerely,

Indices Department

Appendix 1

Comparison of market index weights, on review effective date, for the past five years:

Key: J203 – All Share; J303 – Capped All Share; J403 – SWIX All Share; J433 – Capped SWIX All Share

Date	Alpha	Instrument	J203 Weight	J303 Weight	J403 Weight	J433 Weight	SA Investor weight	Foreign Up-weight	SWIX	SA Investor weight Capped	Foreign Up-weight Capped	SWIX Capped
2018/09/25	NPN	Naspers	18.63%	9.94%	23.28%	9.97%	14.57%	12.52%	23.19%	9.98%	9.97%	9.97%
2018/09/25	BIL	BHP Billiton	9.13%	10.11%	1.82%	2.13%	2.89%	6.13%	1.81%	3.05%	6.92%	2.12%
2018/09/25	CFR	Compagnie Fin Richemont AG	8.35%	9.24%	1.71%	2.01%	2.60%	5.61%	1.71%	2.74%	6.33%	2.00%
2018/09/25	AGL	Anglo American	4.49%	4.97%	2.99%	3.51%	4.42%	3.01%	2.98%	4.66%	3.40%	3.49%
2018/09/25	SOL	Sasol	4.06%	4.49%	5.07%	5.95%	5.53%	2.73%	5.05%	5.83%	3.08%	5.92%
2018/09/25	SBK	Standard Bank Group	3.09%	3.42%	3.86%	4.53%	2.92%	2.07%	3.84%	3.08%	2.34%	4.50%
2018/09/25	FSR	Firststrand Limited	3.04%	3.36%	3.80%	4.46%	4.28%	2.04%	3.78%	4.51%	2.30%	4.43%
2018/09/25	BTI	British American Tobacco PLC	2.31%	2.56%	2.89%	3.39%	4.61%	15.02%	2.87%	4.86%	9.28%	3.37%
2018/09/25	MTN	MTN Group	2.03%	2.25%	2.54%	2.98%	1.92%	1.36%	2.53%	2.03%	1.54%	2.96%
2018/09/25	MNP	Mondi Plc	2.02%	2.24%	0.65%	0.76%	0.88%	1.36%	0.65%	0.93%	1.53%	0.76%
2018/09/25	SLM	Sanlam	1.90%	2.11%	2.38%	2.79%	2.27%	1.28%	2.37%	2.40%	1.44%	2.77%
2018/09/25	ABG	Absa Group Limited	1.49%	1.64%	1.86%	2.18%	1.27%	1.00%	1.85%	1.34%	1.13%	2.17%
2018/09/25	OMU	Old Mutual Ltd	2.00%	2.22%	1.84%	2.16%	2.24%	1.34%	1.83%	2.36%	1.52%	2.15%
2018/09/25	ANH	Anheuser-Busch InBev SA NV					0.50%	9.63%	0.38%	0.52%	9.81%	0.44%
2018/09/25	GLN	Glencore	0.41%	0.45%	0.51%	0.60%	0.66%	7.01%	0.51%	0.70%	7.91%	0.60%

Date	Alpha	Instrument	J203 Weight	J303 Weight	J403 Weight	J433 Weight	SA Investor weight	Foreign Up-weight	SWIX	SA Investor weight Capped	Foreign Up-weight Capped	SWIX Capped
2017/09/18	NPN	Naspers	17.54%	10.28%	21.48%	10.32%	14.79%	11.20%	21.38%	10.30%	10.26%	10.32%
2017/09/18	CFR	Compagnie Fin Richemont AG	8.64%	9.40%	1.77%	2.03%	2.57%	5.52%	1.77%	2.70%	6.51%	2.01%
2017/09/18	BIL	BHP Billiton	6.96%	7.57%	1.45%	1.65%	2.09%	4.44%	1.44%	2.20%	5.24%	1.64%
2017/09/18	AGL	Anglo American	3.63%	3.95%	2.24%	2.56%	3.10%	2.32%	2.23%	3.26%	2.73%	2.55%
2017/09/18	BTI	British American Tobacco PLC	3.53%	3.85%	4.33%	4.94%	5.61%	18.40%	4.31%	5.90%	10.03%	4.92%
2017/09/18	SOL	Sasol	3.05%	3.32%	3.73%	4.26%	4.10%	1.95%	3.72%	4.32%	2.30%	4.24%
2017/09/18	MTN	MTN Group	3.03%	3.30%	3.71%	4.24%	2.69%	1.93%	3.69%	2.83%	2.28%	4.21%
2017/09/18	SBK	Standard Bank Group	2.84%	3.09%	3.48%	3.98%	2.61%	1.82%	3.47%	2.75%	2.14%	3.96%
2017/09/18	FSR	Firststrand Limited	2.43%	2.64%	2.98%	3.40%	3.34%	1.55%	2.96%	3.51%	1.83%	3.38%
2017/09/18	OML	Old Mutual	2.37%	2.58%	1.79%	2.04%	2.46%	1.52%	1.78%	2.59%	1.79%	2.03%
2017/09/18	SNH	Steinhoff Int Holdings N.V.	2.27%	2.46%	2.77%	3.17%	3.31%	1.46%	2.76%	3.49%	1.72%	3.15%
2017/09/18	SLM	Sanlam	1.61%	1.75%	1.97%	2.25%	1.85%	1.03%	1.96%	1.94%	1.21%	2.23%
2017/09/18	REM	Remgro	1.51%	1.64%	1.85%	2.11%	1.96%	0.96%	1.84%	2.06%	1.14%	2.10%
2017/09/18	ANH	Anheuser-Busch InBev SA NV					0.53%	11.34%	0.46%	0.56%	10.06%	0.52%
2017/09/18	GLN	Glencore	0.37%	0.41%	0.46%	0.52%	0.72%	6.50%	0.45%	0.75%	7.67%	0.52%

Date	Alpha	Instrument	J203 Weight	J303 Weight	J403 Weight	J433 Weight	SA Investor weight	Foreign Up-weight	SWIX	SA Investor weight Capped	Foreign Up-weight Capped	SWIX Capped
2016/09/19	NPN	Naspers	14.42%	10.08%	18.73%	10.01%	12.53%	9.76%	18.64%	10.05%	10.04%	10.01%
2016/09/19	SAB	SABMiller	10.97%	9.89%	2.66%	2.94%	2.89%	7.43%	2.64%	2.97%	8.56%	2.92%
2016/09/19	CFR	Compagnie Fin Richemont AG	5.57%	5.97%	1.36%	1.50%	1.86%	3.77%	1.35%	1.91%	4.34%	1.49%
2016/09/19	BIL	BHP Billiton	5.39%	5.78%	1.26%	1.40%	1.64%	3.65%	1.25%	1.69%	4.20%	1.39%
2016/09/19	BTI	British American Tobacco PLC	3.38%	3.63%	4.39%	4.87%	5.52%	16.35%	4.37%	5.68%	9.93%	4.84%
2016/09/19	MTN	MTN Group	2.98%	3.20%	3.87%	4.29%	2.55%	2.02%	3.85%	2.63%	2.33%	4.26%
2016/09/19	SOL	Sasol	2.86%	3.07%	3.72%	4.11%	3.67%	1.94%	3.70%	3.77%	2.23%	4.09%
2016/09/19	AGL	Anglo American	2.85%	3.05%	1.65%	1.83%	2.13%	1.93%	1.64%	2.20%	2.22%	1.82%
2016/09/19	SNH	Steinhoff Int Holdings N.V.	2.80%	3.00%	3.64%	4.03%	5.07%	1.72%	3.62%	5.22%	1.99%	4.00%
2016/09/19	SBK	Standard Bank Group	2.32%	2.49%	3.02%	3.34%	2.30%	1.57%	3.00%	2.36%	1.81%	3.32%
2016/09/19	FSR	Firststrand Limited	2.00%	2.14%	2.59%	2.87%	3.01%	1.35%	2.58%	3.09%	1.56%	2.85%
2016/09/19	REM	Remgro	1.61%	1.72%	2.09%	2.31%	2.14%	1.09%	2.08%	2.21%	1.25%	2.30%
2016/09/19	SLM	Sanlam	1.53%	1.65%	1.99%	2.21%	1.86%	1.04%	1.98%	1.92%	1.20%	2.19%
2016/09/19	OML	Old Mutual	2.29%	2.46%	1.92%	2.13%	2.53%	1.55%	1.91%	2.61%	1.79%	2.12%
2016/09/19	MEI	Mediclinic International plc	0.86%	0.93%	1.12%	1.24%	2.16%	0.62%	1.12%	2.22%	0.71%	1.24%
2016/09/19	ANH	Anheuser-Busch InBev SA NV					0.54%	13.15%	0.50%	0.55%	10.05%	0.56%
2016/09/19	GLN	Glencore					0.28%	3.94%	0.28%	0.28%	4.54%	0.31%

Date	Alpha	Instrument	J203 Weight	J303 Weight	J403 Weight	J433 Weight	SA Investor weight	Foreign Up-weight	SWIX	SA Investor weight Capped	Foreign Up-weight Capped	SWIX Capped
2015/09/21	SAB	SABMiller	10.77%	10.78%	4.11%	4.11%	3.77%	8.66%	4.10%	3.77%	9.46%	4.25%
2015/09/21	NPN	Naspers	10.30%	10.21%	13.63%	13.51%	9.05%	8.28%	13.60%	9.05%	9.05%	10.34%
2015/09/21	CFR	Compagnie Fin Richemont AG	7.72%	7.73%	2.34%	2.34%	2.90%	6.21%	2.34%	2.90%	6.78%	2.42%
2015/09/21	BIL	BHP Billiton	6.95%	6.95%	1.65%	1.66%	2.04%	5.58%	1.65%	2.04%	6.10%	1.71%
2015/09/21	MTN	MTN Group	4.50%	4.50%	5.95%	5.96%	3.80%	3.62%	5.94%	3.80%	3.95%	6.16%
2015/09/21	BTI	British American Tobacco PLC	3.31%	3.31%	4.38%	4.39%	5.86%	17.74%	4.37%	5.86%	10.12%	4.53%
2015/09/21	SOL	Sasol	3.27%	3.27%	4.33%	4.33%	4.41%	2.63%	4.32%	4.41%	2.87%	4.48%
2015/09/21	SHF	Steinhoff Int Holdings	2.90%	2.90%	3.83%	3.84%	3.79%	2.33%	3.82%	3.79%	2.54%	3.97%
2015/09/21	AGL	Anglo American	2.82%	2.82%	1.66%	1.67%	2.15%	2.26%	1.66%	2.15%	2.47%	1.72%
2015/09/21	OML	Old Mutual	2.74%	2.74%	2.15%	2.15%	2.92%	2.20%	2.14%	2.92%	2.40%	2.22%
2015/09/21	SBK	Standard Bank Group	2.44%	2.44%	3.23%	3.24%	2.57%	1.96%	3.22%	2.57%	2.14%	3.34%
2015/09/21	FSR	Firststrand Limited	2.30%	2.30%	3.05%	3.05%	3.56%	1.85%	3.04%	3.56%	2.02%	3.15%
2015/09/21	REM	Remgro	1.75%	1.76%	2.32%	2.33%	2.40%	1.41%	2.32%	2.40%	1.54%	2.40%
2015/09/21	GLN	Glencore Xstrata plc					0.22%	3.15%	0.19%	0.22%	3.44%	0.20%

Date	Alpha	Instrument	J203 Weight	J303 Weight	J403 Weight	J433 Weight	SA Investor weight	Foreign Up-weight	SWIX	SA Investor weight Capped	Foreign Up-weight Capped	SWIX Capped
2014/09/22	BIL	BHP Billiton	10.03%	9.64%	2.96%	2.96%	3.36%	7.88%	2.94%	3.36%	8.38%	2.94%
2014/09/22	SAB	SABMiller	9.28%	9.32%	4.22%	4.22%	3.88%	7.29%	4.20%	3.88%	7.75%	4.20%
2014/09/22	CFR	Compagnie Fin Richemont AG	7.20%	7.23%	2.21%	2.21%	2.84%	5.65%	2.20%	2.84%	6.01%	2.20%
2014/09/22	NPN	Naspers	6.99%	7.03%	9.38%	9.38%	6.24%	5.50%	9.33%	6.24%	5.84%	9.33%
2014/09/22	MTN	MTN Group	6.50%	6.52%	8.71%	8.71%	5.93%	5.10%	8.67%	5.93%	5.43%	8.67%
2014/09/22	SOL	Sasol	5.11%	5.13%	6.85%	6.85%	7.01%	4.01%	6.82%	7.01%	4.27%	6.82%
2014/09/22	AGL	Anglo American	5.09%	5.11%	3.34%	3.34%	4.34%	4.00%	3.32%	4.34%	4.25%	3.32%
2014/09/22	BTI	British American Tobacco PLC	2.97%	2.99%	3.99%	3.99%	5.51%	15.58%	3.97%	5.51%	10.26%	3.97%
2014/09/22	SBK	Standard Bank Group	2.44%	2.45%	3.27%	3.27%	2.49%	1.92%	3.25%	2.49%	2.04%	3.25%
2014/09/22	OML	Old Mutual	2.40%	2.41%	1.77%	1.77%	2.23%	1.88%	1.76%	2.23%	2.00%	1.76%
2014/09/22	FSR	Firststrand Limited	2.11%	2.12%	2.83%	2.83%	3.38%	1.66%	2.82%	3.38%	1.77%	2.82%
2014/09/22	SHF	Steinhoff Intl Holdings	2.03%	2.04%	2.72%	2.72%	2.34%	1.59%	2.70%	2.34%	1.69%	2.70%
2014/09/22	GLN	Glencore Xstrata plc					0.45%	7.81%	0.49%	0.45%	8.30%	0.49%

Appendix 2

Comparison of SA Sector weights, on review effective date, for the past five years:

Date	SA Sector	J203	J303	J403	J433	SA Investor	Foreign Up-weight	SWIX	SA Investor Capped	Foreign Up-weight Capped	SWIX Capped
2018/09/25	SA Resources	25.56%	28.29%	17.11%	20.08%	20.39%	25.76%	17.05%	21.48%	29.08%	19.98%
2018/09/25	SA Industrials	49.35%	43.94%	52.92%	44.75%	45.14%	56.36%	53.10%	42.19%	50.74%	45.04%
2018/09/25	SA Financials	25.08%	27.76%	29.96%	35.16%	34.47%	17.88%	29.85%	36.32%	20.18%	34.98%
2017/09/18	SA Resources	21.19%	23.06%	14.22%	16.24%	15.95%	21.28%	14.15%	16.79%	25.10%	16.15%
2017/09/18	SA Industrials	54.55%	50.55%	58.01%	52.04%	51.71%	62.39%	58.20%	49.16%	55.64%	52.32%
2017/09/18	SA Financials	24.25%	26.39%	27.77%	31.72%	32.34%	16.34%	27.64%	34.04%	19.27%	31.54%
2016/09/19	SA Resources	18.71%	20.07%	13.88%	15.37%	14.27%	17.65%	13.81%	14.68%	20.34%	15.28%
2016/09/19	SA Industrials	59.59%	56.66%	59.95%	55.65%	54.85%	67.42%	60.15%	53.56%	62.46%	55.92%
2016/09/19	SA Financials	21.69%	23.27%	26.17%	28.98%	30.88%	14.93%	26.04%	31.76%	17.20%	28.80%
2015/09/21	SA Resources	18.31%	18.33%	12.60%	13.13%	14.18%	18.74%	12.83%	14.19%	20.48%	13.32%
2015/09/21	SA Industrials	58.41%	58.36%	59.27%	57.56%	52.00%	62.03%	59.12%	51.99%	58.51%	57.58%
2015/09/21	SA Financials	23.29%	23.31%	28.13%	29.31%	33.82%	19.22%	28.05%	33.82%	21.01%	29.11%
2014/09/22	SA Resources	21.64%	26.43%	20.00%	13.15%	22.40%	28.83%	20.39%	22.40%	30.64%	20.39%
2014/09/22	SA Industrials	58.07%	53.19%	55.34%	62.19%	48.86%	54.85%	55.07%	48.86%	52.00%	55.07%
2014/09/22	SA Financials	20.29%	20.38%	24.66%	24.66%	28.74%	16.33%	24.54%	28.74%	17.36%	24.54%

Appendix 3

Emerging Market Index Characteristics

Country	Index	Weighting	Constituents	Review
Singapore	FTSE ST All-Share Index	Market cap weighted	Plus or minus 132	Quarterly: Mar + Sept. June + Dec is new issues. Monday after third Friday.
Turkey (Istanbul)	BIST 100	BIST Indices are calculated as free float market capitalization weighted.	100	Quarterly: Nov, Feb, May, August (last trading day)
Russia (Moscow Exchange MICEX-RTS)	MOEX Russia Index (previously MICEX INDEX) Calculated in RUB	Market cap weighted	Varies but can't be more than 50	Quarterly (third Friday of March, June, Sept and Dec)
Russia (Moscow Exchange MICEX-RTS)	RTS Index (same as above but calculated in USD)	Market cap weighted	Varies but can't be more than 50	Quarterly (third Friday of March, June, Sept and Dec)
India (Bombay Stock exch)	S&P BSE 500	Market cap weighted	500	Semi-annually in June and December
Brazil	Bovespa Index (Ibovespa)	Market cap weighted	Plus or minus 60	4 month cycles: April, August and December
China (Shenzen Stock Exchange)	SZSE Component Index (not to be confused with SZSE Composite Index which is an index of all listed companies, same ground rules but 500 companies)	Market cap weighted	40	Semi-annually on first trading day in January and July
China (Shanghai Stock Exchange)	Shanghai Stock Exchange Composite Index (very volatile) There is SSE 180 which is a continuation of SSE30, this selects the top 180 constituents by full market cap, negotiable market cap ratio, trading values and turnover ratio	Category weighted Market cap (Free float determines inclusion factor)	Plus or minus 1480	Semi-annually after second Friday in June and December
Australia	All Ordinaries Index (XAO)	Full Market cap	500	Annually after close on the third Friday of March S&P/ASX 300 - every 6 months in March and September)
Australia	S&P/ASX 200	Float adjusted market cap and liquidity	200	Quarterly on third Friday of March, June, September and December

Country	Index	Ranking	Liquidity		Free Float
			Constituent	Non-constituent	
Singapore	FTSE ST All-Share Index	Ranked on Full market cap	0.04% free float shares for 8/12 months	0.05% free float shares for 10/12 months. New listings: 20 trading days	Companies with a free float of 15% or below are excluded from the index
Turkey (Istanbul)	BIST 100	Ranked on Free float and liquidity market cap (dual ranked with market cap taking precedence)	No Minimum	New listings: 60 days as of end of the review period	As per CMB - Capital Markets Board of Turkey, calculated and announced by CRA. Group A minimum is greater than TL 30 million Group B minimum is greater than TL 10 million but less than TL 30 million
Russia (Moscow Exchange MICEX-RTS)	MOEX Russia Index (previously MICEX INDEX) Calculated in RUB	Ranked on free float market cap	10% for exclusion (Annual trading volume/free float market cap)	15% for inclusion (Annual trading volume/free float market cap)	Its Free Float Factor is at least 10%; if it falls to below 5% it will be excluded
Russia (Moscow Exchange MICEX-RTS)	RTS Index (same as above, but calculated in USD)	Ranked on free float market cap	10% for exclusion (Annual trading volume/free float market cap)	15% for inclusion (Annual trading volume/free float market cap)	Its Free Float Factor is at least 10%; if it falls to below 5% it will be excluded
India (Bombay Stock exch)	S&P BSE 500	Ranked first on liquidity then on total market cap	Annualised traded value > INR 800 million Trading day= 250 days. Stocks to trade for at least 80% of trading days	Annualised traded value > INR 1 billion Trading day= 250 days. Stocks to trade for at least 80% of trading days	N/A
Brazil	Bovespa Index (Ibovespa)	By free float market cap	The Tradability Ratio cut-off threshold for a stock to qualify for inclusion is 85%	An eligible stock is required to have actively traded in ninety-five percent (95%) of the trading sessions	No Minimum
China (Shenzen Stock Exchange)	SZSE Component Index (not to be confused with SZSE Composite Index which is an index of all listed companies, same ground rules but 500 companies)	1:1:1 ratio of full market cap, free float and liquidity	No Minimum but are monitored by SSI (Shenzhen Securities Information Co., Ltd)	No Minimum	No Minimum
China (Shanghai Stock Exchange)	Shanghai Stock Exchange Composite Index (very volatile) There is SSE 180 which is a continuation of SSE30, this selects the top 180 constituents by full market cap, negotiable market cap ratio, trading values and turnover ratio	Ranked on free float (negotiable shares ratio) and inclusion factor	No Minimum	No Minimum	25% or 10% if share capital is more than RMB 400 million
Australia	All Ordinaries Index (XAO)	Ranked on net market cap (free float - shares held by public)	AOX = no minimum	AOX = no minimum S&P/ASX 300 = 30% Relative liquidity = Stock Median Liquidity / Market Liquidity	No Minimum
Australia	S&P/ASX 200	Ranked on IWF market cap and liquidity	S&P/ASX 200 = 0.025%	S&P/ASX 200 = 0.025%	Minimum of 30%

Country	Index	Capping	Foreign companies	Unique characteristics
Singapore	FTSE ST All-Share Index	No capping	Foreign ownership restrictions will not be applied to the constituents of the FTSE ST Index Series.	Liquidity may be adjusted by up to 0.01% at a review to better reflect liquid market of Singapore Universe is 98% of SGX Mainboard Fast entry market cap is Set in March and September. June and December, it is adjusted up to cut date. Fast Entry: full market cap of smallest company that falls within the top 68% of the universe
Turkey (Istanbul)	BIST 100	There is the BIST 100 Capped version capped at 10%	Currently, there is only one dual listed company, namely DO&CO Aktiengesellschaft.	Only one class of share can be included in the indices. Includes shares of BIST Main and BIST All Stars indices, shares in List A or List B.
Russia (Moscow Exchange MICEX-RTS)	MOEX Russia Index (previously MICEX INDEX) Calculated in RUB	15% per individual stock, 55% for 5 stocks	An additional weighting factor (Lwi) is applied depending on a stock's liquidity factor (LCi) LCi LWi <1.25% 0 1.25%-2.50% 0.12 2.5%-5% 0.25 5%-10% 0.5 ≥10% 1	Stocks need a minimum index weight of 0.25% for inclusion, if that weight falls to below 0.2% it will be excluded.
Russia (Moscow Exchange MICEX-RTS)	RTS Index (same as above but calculated in USD)	15% per individual stock, 55% for 5 stocks	An additional weighting factor (Lwi) is applied depending on a stock's liquidity factor (LCi) LCi LWi <1.25% 0 1.25%-2.50% 0.12 2.5%-5% 0.25 5%-10% 0.5 ≥10% 1	Stocks need a minimum index weight of 0.25% for inclusion, if that weight falls to below 0.2% it will be excluded.
India (Bombay Stock exch)	S&P BSE 500	No capping	Foreign investment limits are not applied while calculating the IWF for S&P BSE index constituents.	Selected on average daily total market cap, annualised traded value and trading frequency. Top 400 are selected then buffer is 401 - 600 In most cases, Investable Weight Factors (IWFs) are reported to the nearest one percentage point IWF: Minimum control of 5% except India Universe is 93% of BSE Mainboard Fast entry of large companies - IPO must be among the top 10 companies, based on a respective index's construction ranking criteria. 5 days' notice will be given and the smallest company will be removed
Brazil	Bovespa Index (Ibovespa)	No capping	Not mentioned in Concepts and Practices Manual	Penny stocks excluded (shares with average weighted price of less than R\$1 - one Brazilian real) Liquidity represents about 80% of market liquidity Market Cap represents about 70% of all listed companies

Country	Index	Capping	Foreign companies	Unique characteristics
China (Shenzhen Stock Exchange)	SZSE Component Index (not to be confused with SZSE Composite Index which is an index of all listed companies, same ground rules but 500 companies)	The SZSE Component Index Series don't implement capping methodology.	The Shanghai and Shenzhen exchanges do not however allow the listing of foreign companies. The HKEX does.	Only for A listed shares Need to be listed for at least 6 months unless total and free float market cap comprehensively is within top 10 of all listed stocks. Represents about 60% of the available market capitalization of Shenzhen equities Fast entry: If a newly eligible or new company's daily average total market cap and free float market cap is within top 10 in the market for the first 5 days, it will be added and the smallest company deleted. Constituents can be removed between reviews due to corporate actions, suspensions, termination or if SSI feels it is no longer a viable constituent
China (Shanghai Stock Exchange)	Shanghai Stock Exchange Composite Index (very volatile) There is SSE 180 which is a continuation of SSE30, this selects the top 180 constituents by full market cap, negotiable market cap ratio, trading values and turnover ratio	No capping	The Shanghai and Shenzhen exchanges do not however allow the listing of foreign companies. The HKEX does.	Tracks all listed A and B shares. Minimum market cap: total share capital of more than RMB (renminbi) 50 million.
Australia	All Ordinaries Index (XAO)	No capping	IWF is based on total securities held on the Australian register	Market capitalisation is the only eligibility requirement of constituents, as liquidity is not considered, with the exception of foreign domiciled companies.
Australia	S&P/ASX 200	15%	IWF is based on total securities held on the Australian register	Fast entry: 8 weeks trading volume and only if a vacancy exists due to deletion