

Russell/Nomura Japan Equity Indexes FY19 handbook

EQUITY QUANTITATIVE RESEARCH (INDEX)

Global Markets Research

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Research analysts

Japan index products

Index Operations Dept. - NSC

idx_mgr@jp.nomura.com
+81 3 6703 3986

This report constitutes the Russell/Nomura Japan Equity Indexes FY19 handbook.

Russell/Nomura Japan Equity Indexes have the following characteristics:

- They are share price indexes that are weighted by free-float adjusted market capitalization and cover the top 98% of all listed stocks in terms of float-adjusted market capitalization, thereby offering broad market coverage.
- In addition to stocks listed on the First Section of the Tokyo Stock Exchange (TSE-1), they include stocks listed on other exchanges.
- Because the indexes take into consideration the stable shareholding ratio, they reflect the stocks that are actually available for investment.
- There are style indexes for large and small companies and for value and growth stocks.
- The Prime Index consists of the top 1,000 stocks in the Total Market Index by market cap excluding stable shareholdings.
- Stocks are selected quantitatively based on clearly defined criteria.
- The composition of each index is reviewed once a year.

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1. Introduction

The Russell/Nomura Japan Equity Indexes are Japanese equity indexes developed jointly by Frank Russell Company and the Global Research Division, Financial Engineering & Technology Research Center, Nomura Securities Co., Ltd.

Russell/Nomura Japan Equity Indexes should be useful in:

- Determining investment strategies (strategic asset allocation)
- Determining manager structures
- Devising asset management benchmarks
- Supporting portfolio management activities
- Evaluating the performance of various investment styles
- Managing risk

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- They are share price indexes that are weighted by free-float adjusted market capitalization and cover the top 98% of all listed stocks in terms of float-adjusted market capitalization, thereby offering broad market coverage
- In addition to stocks listed on the First Section of the Tokyo Stock Exchange (TSE-1), they include stocks listed on all of Japan's stock exchanges¹
- Because the indexes take into consideration the stable shareholding ratio, they reflect the stocks that are actually available for investment
- There are style indexes for large and small companies and for value and growth stocks
- The Prime Index consists of the top 1,000 stocks in the Total Market Index by market cap excluding stable shareholdings
- Stocks are selected quantitatively based on clearly defined criteria
- The composition of each index is reviewed once a year.

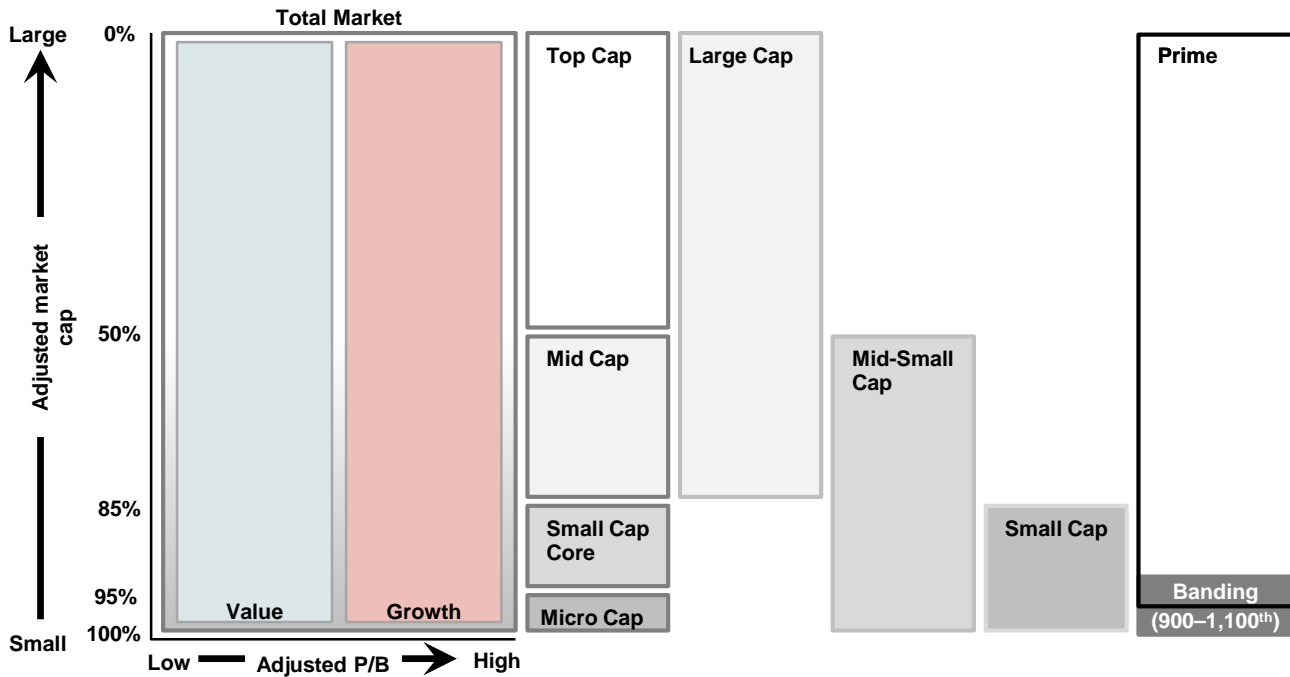
Complete details of rules for the Russell/Nomura Japan Equity Index can be found in the Russell/Nomura Japan Equity Index Rulebook.

¹ Tokyo Stock Exchange (1st Section, 2nd Section, Mothers, JASDAQ, TOKYO PRO Market), Nagoya Stock Exchange, Sapporo Securities Exchange, and Fukuoka Stock Exchange

2. Russell/Nomura Japan Equity Indexes

The Russell/Nomura Japan Equity Indexes cover the top 98% of stocks listed on all markets in terms of float-adjusted market value. Size-based and investment style indexes are published separately as subindexes. Stocks are divided between the size-based indexes on the basis of their float-adjusted market capitalization, while the adjusted market capitalization of constituent stocks is divided between Value and Growth investment style indexes on the basis of their adjusted P/B ratios.

Fig. 1: Russell/Nomura Japan Equity Indexes



Source: Nomura

- The Russell/Nomura Total Market Index contains the top 98% of all stocks listed on Japan’s stock exchanges in terms of float-adjusted market capitalization
- The Russell/Nomura Large Cap Index contains the top 85% of the Russell/Nomura Total Market Index in terms of float-adjusted market capitalization
- The Russell/Nomura Small Cap Index contains the bottom 15% of the Russell/Nomura Total Market Index in terms of float-adjusted market capitalization
- The Russell/Nomura Top Cap Index contains the top 50% of the Russell/Nomura Total Market Index in terms of float-adjusted market capitalization
- The Russell/Nomura Mid Cap Index contains the middle 35% of the Russell/Nomura Total Market Index in terms of float-adjusted market capitalization
- The Russell/Nomura Mid-Small Cap Index contains the bottom 50% of the Russell/Nomura Total Market Index in terms of float-adjusted market capitalization
- The Russell/Nomura Small Cap Core Index comprises stocks in the Small Cap Index, excluding the Micro Cap Index, and represents the bottom 15% of the Russell/Nomura Total Market Index in terms of float-adjusted market capitalization minus the bottom 5%
- The Russell/Nomura Micro Cap Index contains the bottom 5% of the Russell/Nomura Total Market Index in terms of float-adjusted market capitalization
- The Russell/Nomura Prime Index contains the top 1,000 stocks in the Total Market Index in terms of float-adjusted market capitalization, taking into account “banding” and the “negative list”

3. Russell/Nomura Japan Equity Indexes: composition

3.1. Number of stocks and market capitalization

Figure 2 shows the number and market capitalization of the stocks in the Russell/Nomura Total Market Index and in the total market.

Fig. 2: Russell/Nomura Total Market Index and the total market

	Number of stocks		Market cap (¥trn)		
	Russell/Nomura	Total market	Russell/Nomura (adjusted for stable shareholdings)	Russell/Nomura (not adjusted for stable shareholdings)	Total market (not adjusted for stable shareholdings)
TSE-1	1,453	2,111	405	606	617
Other	147	1,633	7	13	25
Total	1,600	3,744	411	619	642

Note: Market cap data as of 19 Nov 2018. The Russell/Nomura Total Market Index (Russell/Nomura) is as of the Nov 2018 regular reconstitution. Market selection was the TSE, followed by the Nagoya Stock Exchange, the Fukuoka Stock Exchange, and the Sapporo Securities Exchange, in that order.

Source: Nomura

Figure 3 shows the number of stocks for each index as of the date of its regular reconstitution, together with the percentage of total market capitalization, and the market capitalization of the largest and smallest stocks.

Fig. 3: Number of stocks in each index and % of total market capitalization

Index	Number of stocks	% of total market cap	Market cap of largest and smallest stock (¥bn)	
			Largest	Smallest
Total Market	1,600	100.0%	10,491.9	7.7
Value	1,108	51.6%	10,491.9	0.7
Growth	877	48.4%	7,433.3	0.7
Large	350	84.7%	10,491.9	176.5
Large Value	223	42.3%	10,491.9	16.8
Large Growth	231	42.4%	7,433.3	14.7
Top	70	50.7%	10,491.9	1,318.4
Top Value	47	25.3%	10,491.9	93.2
Top Growth	45	25.4%	7,433.3	292.0
Mid	280	34.1%	1,399.0	176.5
Mid Value	176	17.0%	1,362.5	16.8
Mid Growth	186	17.1%	1,399.0	14.7
Mid-Small	1,530	49.3%	1,399.0	7.7
Mid-Small Value	1,061	26.3%	1,362.5	0.7
Mid-Small Growth	832	23.1%	1,399.0	0.7
Small	1,250	15.3%	228.1	7.7
Small Value	885	9.3%	225.0	0.7
Small Growth	646	6.0%	222.8	0.7
Small Core	450	10.6%	228.1	37.2
Small Core Value	322	6.4%	225.0	3.4
Small Core Growth	243	4.3%	222.8	3.0
Micro	800	4.7%	54.9	7.7
Micro Value	563	2.9%	54.9	0.7
Micro Growth	403	1.7%	53.3	0.7
Prime	1,000	97.1%	10,491.9	21.5
Prime Value	705	49.9%	10,491.9	2.2
Prime Growth	551	47.2%	7,433.3	1.8

Note: Based on constituent stocks as of regular reconstitutions in Nov 2018. Market cap data as of 19 Nov 2018. Number of stocks for Value and Growth indexes is the number of stocks for which all or part of the market capitalization is allocated to the Value or Growth indexes. Market cap of stocks in Value and Growth indexes is the market capitalization for these stocks that is allocated to the Value or Growth indexes.

Source: Nomura

3.2. Number of stocks as of date of regular reconstitution

Figure 4 shows the number of stocks in each index as of the date of past regular reconstitutions.

Fig. 4: Number of constituent stocks

(yyyymm)	Total		Large	Small	Prime	
	Value	Growth				
198101	1,091	656	713	400	691	-
198201	1,091	708	642	400	691	-
198301	1,091	766	592	400	691	-
198401	1,091	738	630	400	691	-
198501	1,104	706	672	400	704	-
198601	1,142	733	762	400	742	-
198701	1,142	833	672	400	742	-
198801	1,199	860	765	400	799	-
198901	1,267	877	778	400	867	-
199001	1,381	827	972	500	881	-
199101	1,561	920	1,118	500	1,061	-
199201	1,585	1,017	1,070	500	1,085	-
199301	1,586	1,092	954	500	1,086	-
199401	1,586	1,118	940	500	1,086	-
199501	1,749	1,111	1,090	500	1,249	-
199601	1,754	1,191	1,006	500	1,254	-
199701	1,854	1,251	1,082	500	1,354	-
199801	1,854	1,575	701	500	1,354	1,000
199901	1,854	1,584	616	500	1,354	1,000
200001	1,854	1,551	656	500	1,354	1,000
200101	1,854	1,544	642	500	1,354	1,000
200202	1,853	1,573	578	300	1,553	1,000
200212	1,500	1,225	527	300	1,200	1,000
200312	1,600	1,233	677	350	1,250	1,000
200412	1,700	1,231	796	400	1,300	1,000
200512	1,799	1,218	915	400	1,399	1,000
200612	1,700	1,241	766	350	1,350	1,000
200712	1,500	1,164	668	300	1,200	1,000
200812	1,400	1,111	519	300	1,100	1,000
200912	1,500	1,139	669	350	1,150	1,000
201012	1,400	1,081	589	300	1,100	1,000
201112	1,400	1,044	719	350	1,050	1,000
201212	1,500	1,159	712	350	1,150	1,000
201312	1,400	1,043	686	300	1,100	1,000
201412	1,500	1,103	806	350	1,150	1,000
201512	1,400	1,000	760	350	1,050	1,000
201611	1,500	1,104	801	350	1,150	1,000
201711	1,600	1,132	919	350	1,250	1,000
201811	1,600	1,108	877	350	1,250	1,000

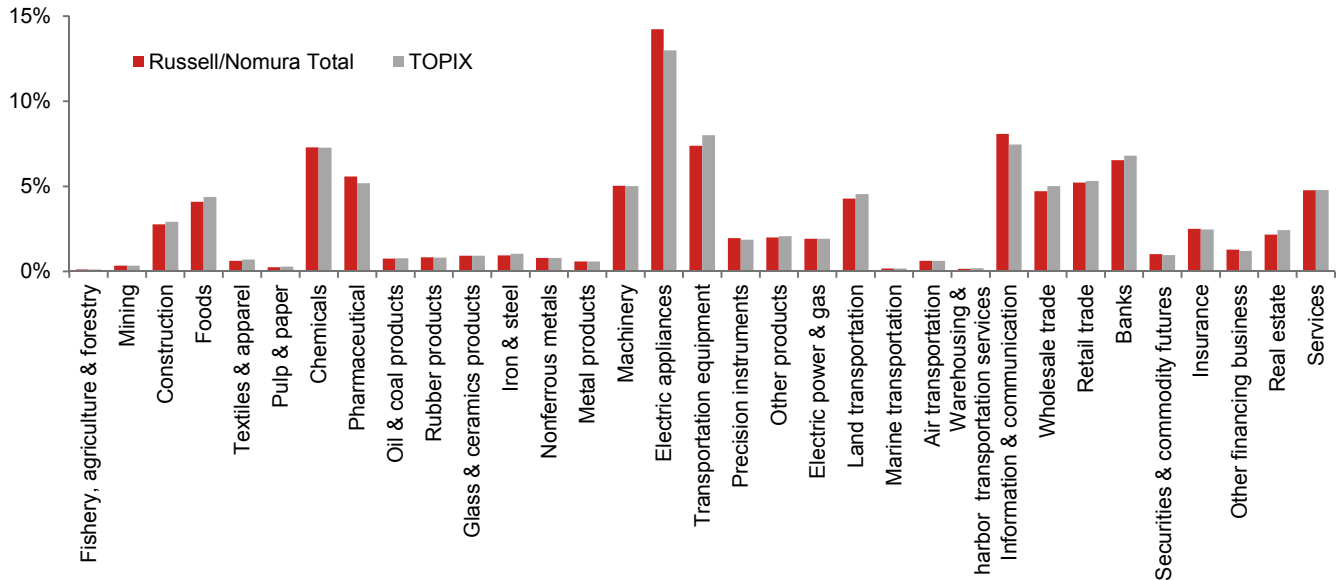
Note: As of regular reconstitution date each year.

Source: Nomura

3.3. Sector allocation

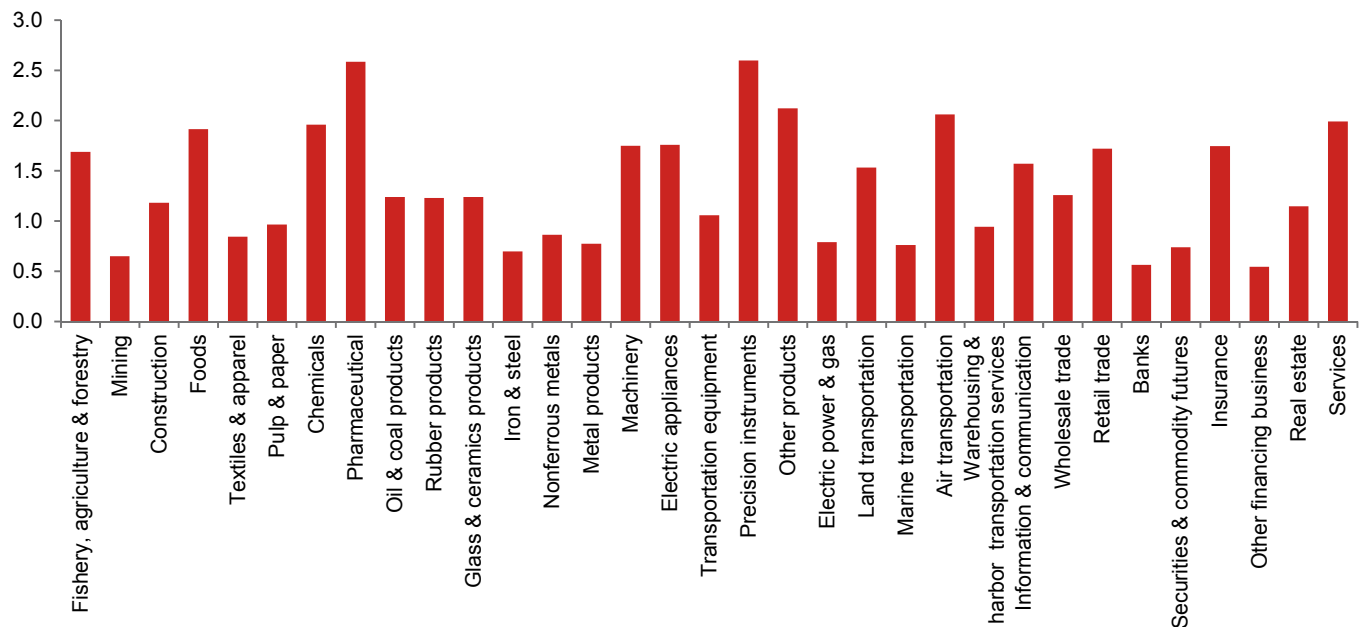
Figure 5 shows the percentage of Russell/Nomura Total Market Index market capitalization in each of 33 sectors. Compared with the TOPIX, the Russell/Nomura Total Market Index is more heavily weighted toward the electric appliances sector and less heavily weighted toward the transportation equipment sector.

Fig. 5: Sector allocation of Russell/Nomura Total Market Index and TOPIX



Note: Figures for Russell/Nomura Total Market Index are based on constituent stocks as of the regular reconstitution date in Nov 2018. Market cap data as of 19 Nov 2018. Source: Nomura

Fig. 6: Average adjusted P/B ratio by sector for the Russell/Nomura Total Market Index



Note: Figures for Russell/Nomura Total Market Index are based on constituent stocks as of the regular reconstitution date in Nov 2018. Market cap data as of 15 Oct 2018, the date of determination for the regular reconstitution. Average adjusted P/B = [sum of share prices of stocks included] / (sum of BPS adjusted for unrealized gains/losses of stocks included).

Source: Nomura

3.4. Top 10 stocks by market capitalization

Figure 7 shows the top 10 stocks by weighting in each index.

Fig. 7: Top 10 stocks by weighting in each index

Rank	TOP		TOP Value		TOP Growth	
1	7203	Toyota Motor	7203	Toyota Motor	6758	Sony
2	9984	SoftBank Group	8306	Mitsubishi UFJ FG	9984	SoftBank Group
3	6758	Sony	9432	Nippon Telegraph and Telephone	6861	Keyence
4	8306	Mitsubishi UFJ FG	8316	Sumitomo Mitsui FG	9433	KDDI
5	9432	Nippon Telegraph and Telephone	7267	Honda Motor	7974	Nintendo
6	8316	Sumitomo Mitsui FG	8411	Mizuho FG	4452	Kao
7	6861	Keyence	8058	Mitsubishi	6098	Recruit HD
8	9433	KDDI	8766	Tokio Marine HD	6954	Fanuc
9	7267	Honda Motor	6501	Hitachi	4503	Astellas Pharma
10	8411	Mizuho FG	8031	Mitsui & Co	6367	Daikin Industries

Rank	Mid		Mid Value		Mid Growth	
1	8002	Marubeni	8002	Marubeni	4519	Chugai Pharmaceutical
2	8309	Sumitomo Mitsui Trust HD	8309	Sumitomo Mitsui Trust HD	6988	Nitto Denko
3	1605	Inpex	1605	Inpex	9983	Fast Retailing
4	4519	Chugai Pharmaceutical	8308	Resona HD	7309	Shimano
5	6702	Fujitsu	7011	Mitsubishi Heavy Industries	8113	Unicharm
6	6762	TDK	4188	Mitsubishi Chemical HD	6586	Makita
7	9201	Japan Airlines	9201	Japan Airlines	7733	Olympus
8	6988	Nitto Denko	5411	JFE HD	4528	Ono Pharmaceutical
9	8830	Sumitomo Realty & Development	6702	Fujitsu	9843	Nitori HD
10	8308	Resona HD	9503	Kansai Electric Power	6869	Sysmex

Rank	Small Core		Small Core Value		Small Core Growth	
1	2432	DeNA	2432	DeNA	4739	Itochu Techno-Solutions
2	4114	Nippon Shokubai	4114	Nippon Shokubai	3938	LINE
3	5801	Furukawa Electric	5801	Furukawa Electric	7164	Zenkoku Hoshio
4	4091	Taiyo Nippon Sanso	8227	Shimamura	3769	GMO Payment Gateway
5	4739	Itochu Techno-Solutions	8905	Aeon Mall	4206	Aica Kogyo
6	2212	Yamazaki Baking	8418	Yamaguchi FG	2670	ABC-Mart
7	3938	LINE	9401	Tokyo Broadcasting System HD	7518	Net One Systems
8	7164	Zenkoku Hoshio	4217	Hitachi Chemical	7649	Sugi HD
9	8227	Shimamura	6417	Sankyo	8056	Nihon Unisys
10	8905	Aeon Mall	9076	Seino HD	9627	Ain HD

Rank	Micro		Micro Value		Micro Growth	
1	5331	Noritake	5331	Noritake	7780	Menicon
2	7780	Menicon	6740	Japan Display	3738	T-Gaia
3	3738	T-Gaia	1766	Token	2398	Tsukui
4	2398	Tsukui	2681	Geo HD	3387	Create Restaurants HD
5	6740	Japan Display	6804	Hosiden	7447	Nagaileben
6	1766	Token	3258	Unizo HD	8703	Kabu.com Securities
7	2681	Geo HD	8399	Bank Of The Ryukyus, Limited	2160	Gni Group
8	3387	Create Restaurants HD	3608	Tsi HD	4708	Relia
9	6804	Hosiden	4958	T.Hasegawa	2157	Koshidaka HD
10	9436	Okinawa Cellular Telephone	8097	San-Ai Oil	4812	Information Services International-Dentsu

Rank	Prime		Prime Value		Prime Growth	
1	7203	Toyota Motor	7203	Toyota Motor	6758	Sony
2	9984	SoftBank Group	8306	Mitsubishi UFJ FG	9984	SoftBank Group
3	6758	Sony	9432	Nippon Telegraph and Telephone	6861	Keyence
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Note: As of 15 Oct 2018, the date of determination for the regular reconstitution. FG = Financial Group, HD = Holdings.

Source: Nomura

4. Performance analysis

4.1. Annual returns

Fig. 8: Annual returns on individual indexes

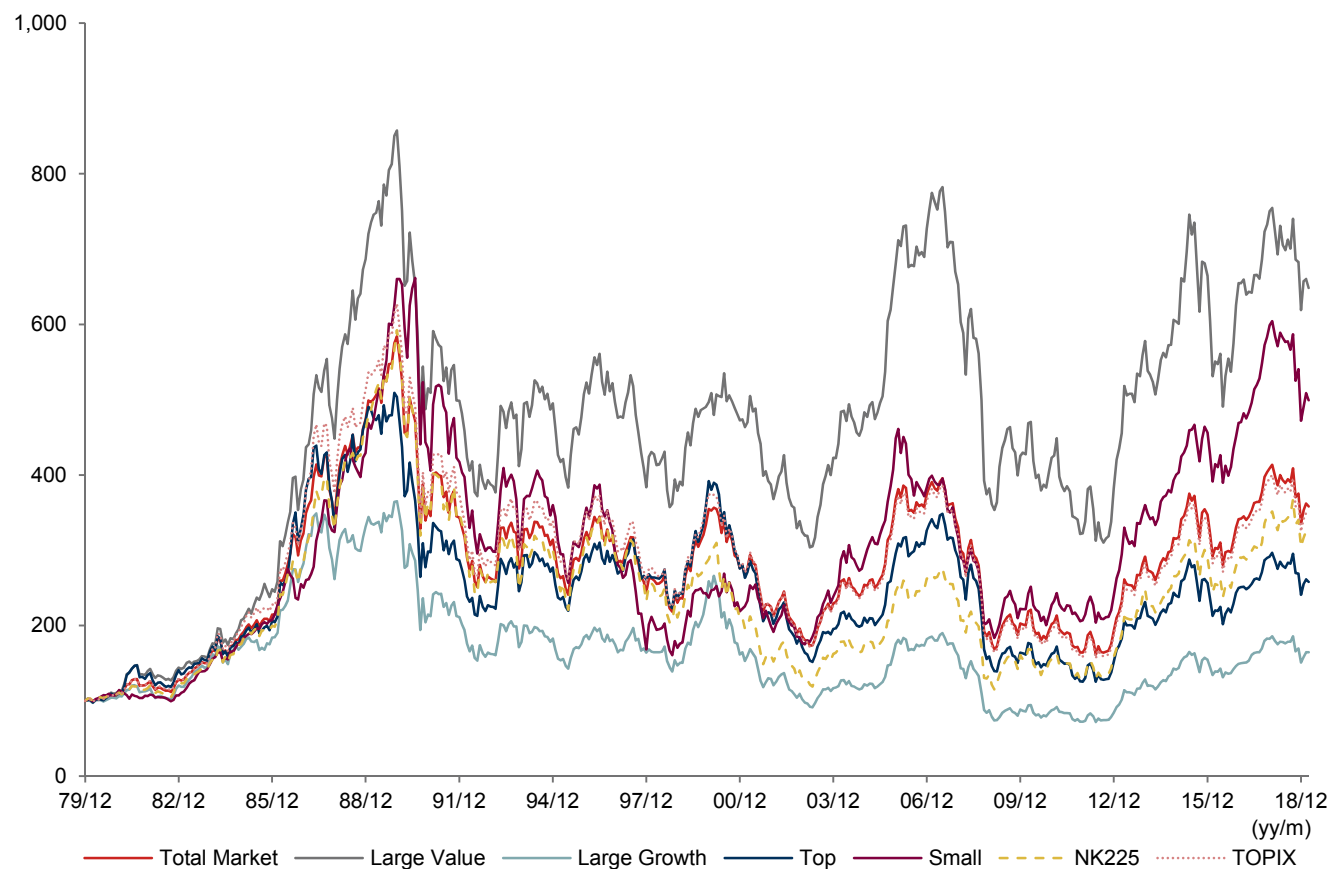
Index	Excluding dividends					Including dividends				
	1 yr	2 yrs	5 yrs	10 yrs	Jan 2001–	1 yr	2 yrs	5 yrs	10 yrs	Jan 2001–
Total Market	-6.17%	3.47%	6.87%	8.77%	2.95%	-3.82%	5.70%	8.96%	10.86%	4.67%
Value	-6.81%	1.44%	6.14%	8.15%	4.17%	-3.94%	4.15%	8.64%	10.51%	6.09%
Growth	-5.21%	5.73%	7.81%	9.52%	1.79%	-3.37%	7.49%	9.52%	11.37%	3.32%
Large	-5.16%	3.45%	6.62%	8.39%	2.45%	-2.73%	5.77%	8.78%	10.53%	4.20%
Large Value	-5.30%	1.62%	5.88%	7.64%	3.48%	-2.31%	4.45%	8.46%	10.06%	5.43%
Large Growth	-4.68%	5.37%	7.53%	9.24%	1.68%	-2.83%	7.15%	9.26%	11.10%	3.24%
Top	-5.15%	2.90%	5.57%	7.82%	1.36%	-2.51%	5.41%	7.92%	10.17%	3.23%
Top Value	-6.06%	0.91%	4.72%	7.12%	2.27%	-2.79%	4.05%	7.61%	9.79%	4.34%
Top Growth	-3.91%	4.93%	6.53%	8.72%	0.93%	-1.87%	6.87%	8.43%	10.79%	2.64%
Mid	-5.07%	4.36%	8.22%	9.33%	4.17%	-3.01%	6.31%	10.04%	11.16%	5.74%
Mid Value	-4.19%	2.64%	7.49%	8.57%	5.04%	-1.64%	5.04%	9.69%	10.65%	6.82%
Mid Growth	-5.77%	6.16%	9.06%	10.17%	2.98%	-4.20%	7.68%	10.54%	11.75%	4.32%
Mid-Small	-7.15%	4.12%	8.25%	9.79%	4.68%	-5.12%	6.02%	10.08%	11.65%	6.28%
Mid-Small Value	-7.45%	1.95%	7.44%	9.22%	5.76%	-4.99%	4.26%	9.60%	11.30%	7.55%
Mid-Small Growth	-6.52%	6.78%	9.34%	10.59%	2.94%	-4.95%	8.27%	10.81%	12.17%	4.29%
Small	-11.64%	3.63%	8.55%	10.96%	5.96%	-9.65%	5.51%	10.45%	12.89%	7.63%
Small Value	-13.55%	0.55%	7.44%	10.27%	7.01%	-11.28%	2.70%	9.58%	12.37%	8.85%
Small Growth	-8.44%	8.41%	10.38%	12.27%	3.22%	-6.91%	9.87%	11.90%	13.88%	4.56%
Small Core	-10.86%	3.45%	8.65%	10.87%	5.56%	-8.89%	5.32%	10.53%	12.77%	7.20%
Small Core Value	-12.40%	0.26%	7.37%	9.79%	6.62%	-10.14%	2.42%	9.47%	11.84%	8.41%
Small Core Growth	-8.26%	8.33%	10.75%	12.88%	3.16%	-6.68%	9.82%	12.30%	14.54%	4.52%
Micro	-13.30%	3.99%	8.50%	11.20%	6.69%	-11.32%	5.86%	10.42%	13.16%	8.41%
Micro Value	-15.98%	1.02%	7.67%	11.15%	7.68%	-13.62%	3.21%	9.86%	13.34%	9.59%
Micro Growth	-8.74%	8.77%	9.83%	10.90%	3.41%	-7.37%	10.12%	11.23%	12.38%	4.68%
Prime	-5.85%	3.49%	6.84%	8.72%	2.87%	-3.53%	5.70%	8.94%	10.82%	4.60%
Prime Value	-6.47%	1.42%	6.11%	8.07%	4.06%	-3.57%	4.17%	8.64%	10.45%	5.99%
Prime Growth	-4.96%	5.73%	7.76%	9.49%	1.78%	-3.12%	7.49%	9.48%	11.33%	3.32%
TOPIX	-6.12%	3.47%	6.79%	8.67%	2.71%	-3.74%	5.71%	8.91%	10.76%	4.44%

Note: As of end-Mar 2019. Returns are annualized and based on average monthly yen-based returns for each period.

Source: Nomura

4.2. Performance

Fig. 9: Index performance



Note: Shows monthly index values (yen basis, excluding dividends) in Dec 1979–Mar 2019, rebased so that end-Dec 1979 = 100.

Source: Nomura

Fig. 10: Average returns, standard deviation, and correlation coefficients

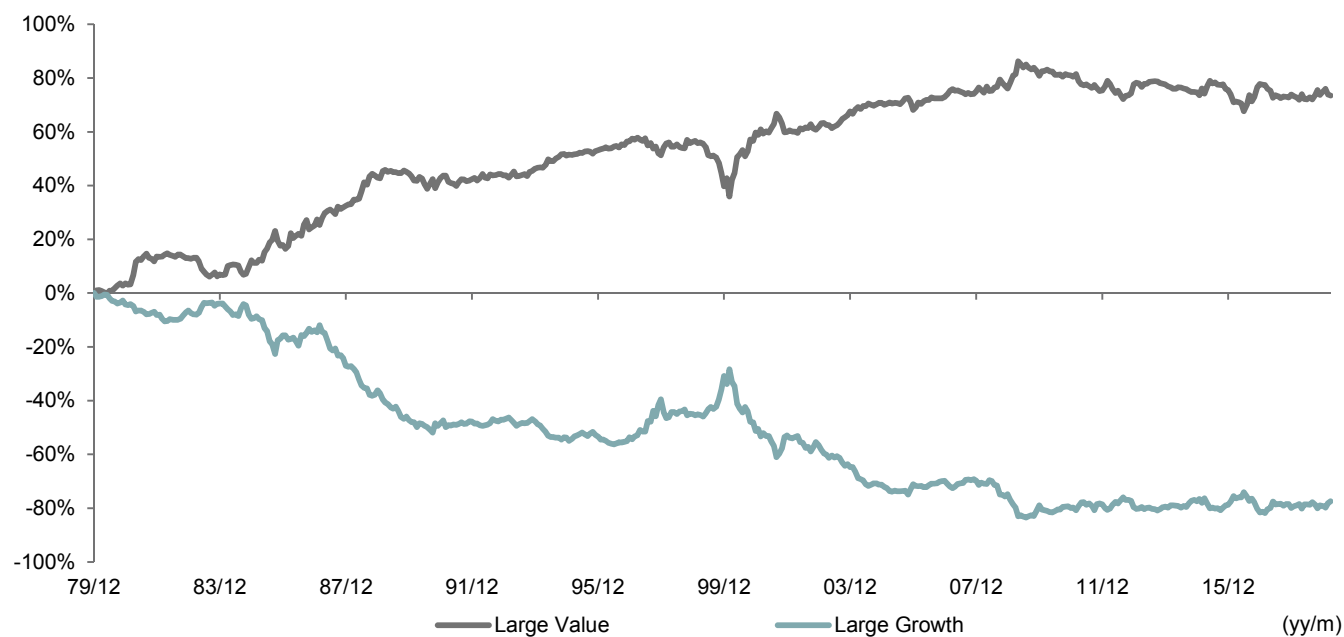
	Average returns	Standard deviation	Russell/Nomura	TOPIX	Nikkei 225
Russell/Nomura	4.88%	17.94%	1		
TOPIX	4.85%	18.29%	0.9949	1	
Nikkei 225	4.92%	19.54%	0.9617	0.9607	1

Note: Russell/Nomura is Russell/Nomura Total Market Index. Based on monthly returns (yen basis, excluding dividends) in Jan 1980–Mar 2019. Average return and standard deviation data are annualized.

Source: Nomura

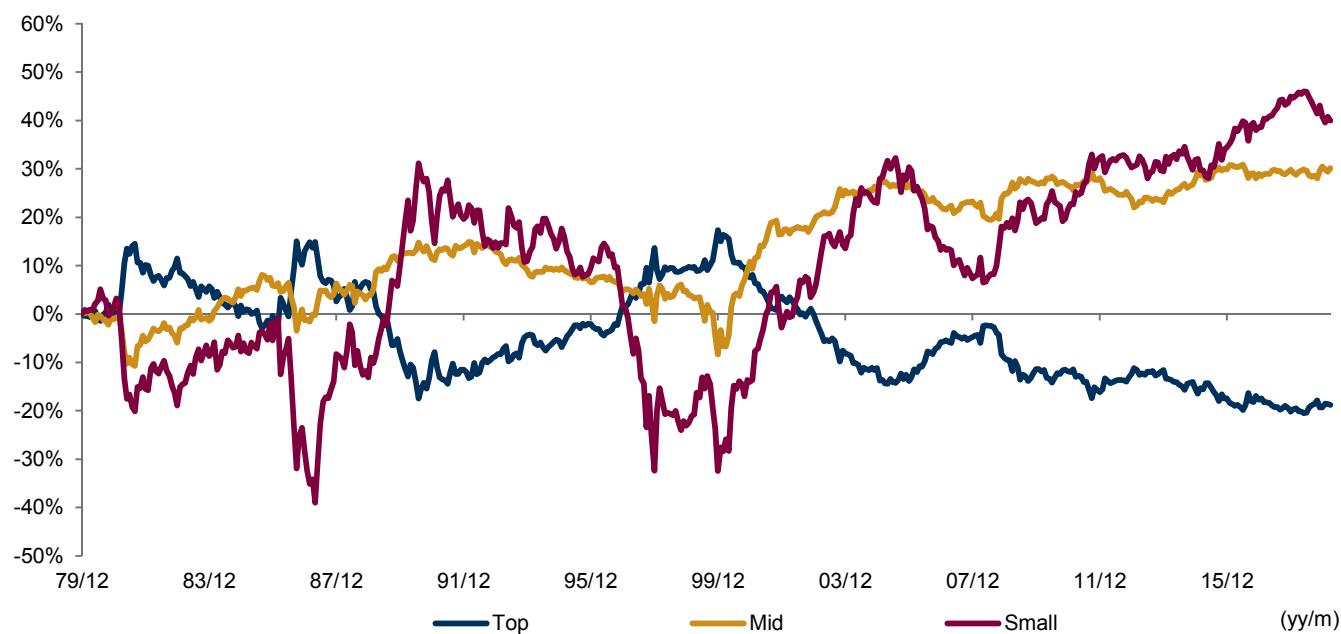
4.3. Relative performance of style indexes

Fig. 11: Cumulative excess returns on value and growth indexes



Note: Shows cumulative excess monthly returns (including dividends) on each index versus the Russell/Nomura Total Market Index, Jan 1980–Mar 2019.
Source: Nomura

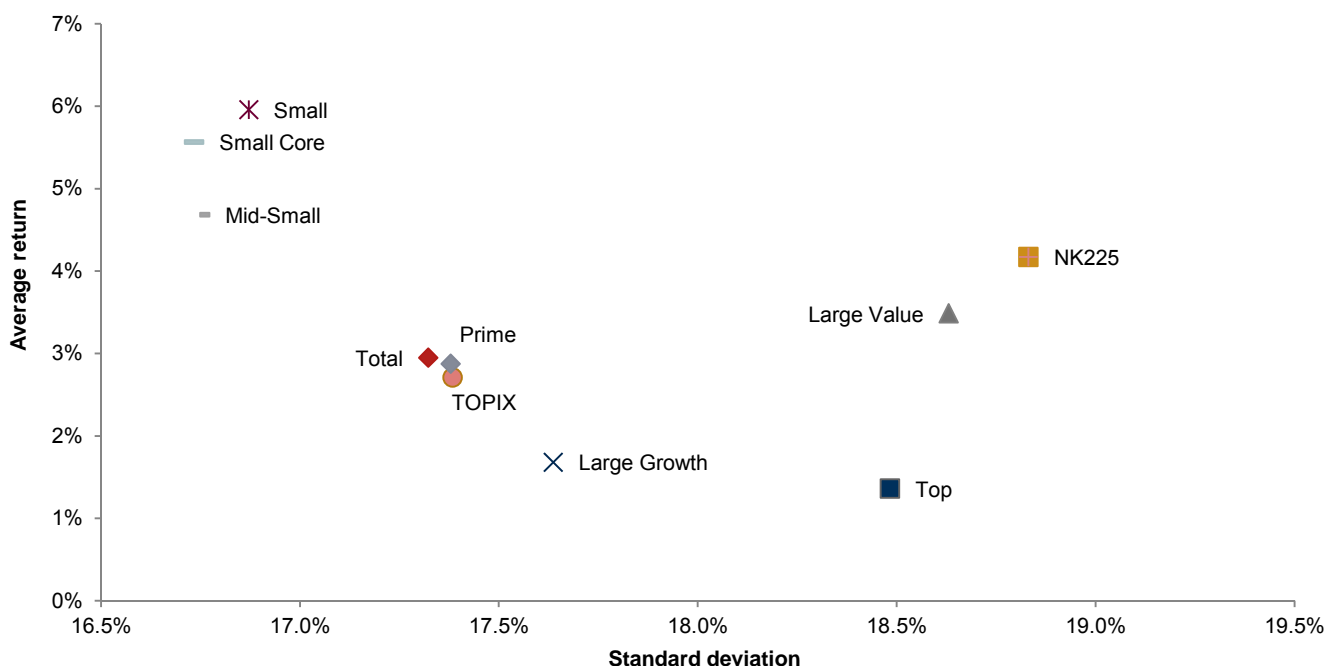
Fig. 12: Cumulative excess returns on size-based indexes



Note: Shows cumulative excess monthly returns (including dividends) on each index versus the Russell/Nomura Total Market Index, Jan 1980–Mar 2019.
Source: Nomura

4.4. Risk-return characteristics of individual indexes

Fig. 13: Average return and standard deviation of individual indexes

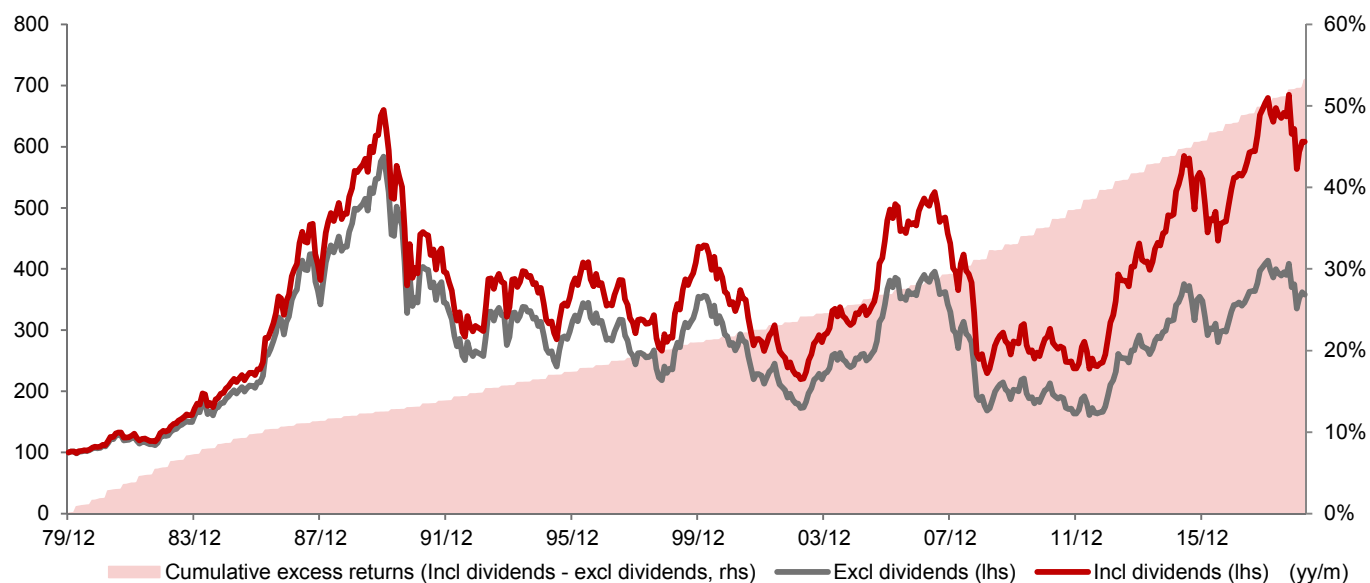


Note: Shows average returns and standard deviation on annualized basis, calculated from monthly returns (excluding dividends) in Jan 2001–Mar 2019.

Source: Nomura

4.5. Impact of dividends

Fig. 14: Impact of dividends on performance of Russell/Nomura Total Market Index



Note: Shows monthly values of Russell/Nomura Total Market Index in Dec 1979–Mar 2019, rebased so that end-Dec 1979 = 100. Cumulative excess returns are the sum of index returns (including dividends) in excess of index returns (excluding dividends).

Source: Nomura

5. Index investability

5.1. Turnover ratios as of regular reconstitutions

Figure 15 shows turnover ratios as of the date of regular reconstitutions.

Fig. 15: Turnover ratios at time of regular reconstitutions

Date (yyyymm)	Total			Large	Small	Prime
		Value	Growth			
198101	2.4%	11.2%	12.9%	3.5%	13.1%	-
198201	2.1%	15.7%	17.8%	3.1%	12.1%	-
198301	2.1%	15.2%	15.1%	3.1%	13.5%	-
198401	2.6%	14.2%	15.6%	4.3%	16.2%	-
198501	2.9%	16.3%	19.1%	4.1%	17.5%	-
198601	3.7%	15.6%	16.7%	4.8%	16.2%	-
198701	2.3%	17.5%	17.7%	3.3%	18.4%	-
198801	3.5%	12.4%	16.9%	5.1%	16.8%	-
198901	3.7%	17.1%	22.1%	4.9%	15.8%	-
199001	3.0%	15.9%	18.2%	7.2%	27.3%	-
199101	3.4%	19.0%	20.8%	4.6%	20.9%	-
199201	1.9%	13.1%	13.5%	3.1%	13.6%	-
199301	1.9%	12.0%	12.8%	3.2%	13.3%	-
199401	1.5%	11.7%	12.2%	2.6%	12.0%	-
199501	3.3%	13.6%	17.0%	4.0%	15.4%	-
199601	2.2%	13.1%	13.6%	2.5%	9.8%	-
199701	2.2%	18.0%	19.2%	2.3%	10.7%	-
199801	1.4%	18.4%	14.8%	2.5%	16.6%	1.4%
199901	3.1%	12.9%	14.2%	4.1%	12.3%	3.0%
200001	3.4%	31.3%	25.5%	5.4%	31.8%	3.5%
200101	2.8%	18.6%	21.3%	3.8%	18.3%	2.7%
200202	2.5%	16.7%	16.2%	7.6%	43.0%	2.4%
200212	3.3%	15.5%	13.5%	4.7%	15.8%	2.2%
200312	2.5%	19.6%	20.7%	4.6%	20.2%	2.1%
200412	3.5%	17.5%	20.9%	4.9%	18.9%	3.4%
200512	3.2%	21.0%	22.8%	3.8%	15.8%	3.1%
200612	2.5%	18.6%	17.6%	3.1%	16.4%	2.5%
200712	1.8%	20.5%	20.8%	3.5%	18.8%	1.7%
200812	1.6%	29.3%	31.7%	3.8%	17.6%	1.7%
200912	1.6%	26.8%	26.5%	4.2%	21.6%	1.5%
201012	1.8%	14.5%	14.6%	3.1%	15.8%	1.8%
201112	1.6%	16.2%	15.7%	4.6%	20.6%	1.5%
201212	1.9%	13.2%	11.7%	2.7%	11.9%	1.7%
201312	1.6%	16.1%	16.5%	3.2%	20.1%	1.7%
201412	1.7%	11.9%	11.7%	3.9%	19.0%	1.5%
201512	1.7%	13.1%	13.3%	2.7%	12.2%	1.7%
201611	1.3%	14.6%	13.9%	2.3%	12.9%	1.1%
201711	1.6%	9.2%	9.7%	2.2%	9.9%	1.5%
201811	1.8%	12.5%	12.2%	2.8%	10.9%	1.8%
Average	2.4%	16.4%	17.1%	3.8%	17.0%	2.1%

Note: Turnover ratio is $[\Sigma | \text{market cap weighting before reconstitution} - \text{market cap weighting after reconstitution} | / 2]$, based on share price on business day before regular reconstitution. The figures thus show one-way turnover for an index fund constructed using the full replication approach. A change in all of the constituent stocks would give a turnover ratio of 100%.

Source: Nomura

5.2. Estimated number of days' impact in the case of regular reconstitutions

Figure 16 shows the estimated number of days' impact in the case of regular reconstitutions for passive funds that track each index using the full replication approach. The higher the turnover ratio on the date of the regular reconstitution, and the greater the number of stocks with low liquidity that are added, the greater the number of days' impact.

Fig. 16: No. of days' impact in case of regular reconstitutions

Index	No. of days of impact Maximum (days)	Turnover ratio (one-way)	Index market cap (¥trn)	Number of stocks				
				Before	After	Change	Out	In
Total Market	2	1.8%	411	1,589	1,600	11	89	100
Value	3	12.5%	212	1,122	1,108	-14	118	104
Growth	1	12.2%	199	916	877	-39	172	133
Large	1	2.8%	348	350	350	0	24	24
Large Value	1	13.0%	174	223	223	0	31	31
Large Growth	1	12.5%	174	240	231	-9	42	33
Top	1	4.1%	208	70	70	0	4	4
Top Value	1	14.4%	104	44	47	3	4	7
Top Growth	1	12.4%	104	48	45	-3	6	3
Mid	1	8.2%	140	280	280	0	28	28
Mid Value	1	17.1%	70	179	176	-3	32	29
Mid Growth	1	18.4%	70	192	186	-6	41	35
Mid-Small	3	4.6%	203	1,519	1,530	11	93	104
Mid-Small Value	5	14.3%	108	1,078	1,061	-17	119	102
Mid-Small Growth	2	15.7%	95	868	832	-36	171	135
Small	8	10.9%	63	1,239	1,250	11	112	123
Small Value	13	17.5%	38	899	885	-14	114	100
Small Growth	6	24.3%	25	676	646	-30	159	129
Small Core	9	17.8%	44	450	450	0	76	76
Small Core Value	11	21.6%	26	326	322	-4	65	61
Small Core Growth	8	30.6%	18	258	243	-15	81	66
Micro	24	20.9%	19	789	800	11	138	149
Micro Value	41	23.3%	12	573	563	-10	106	96
Micro Growth	10	38.9%	7	418	403	-15	134	119
Prime	1	1.8%	399	996	1,000	4	31	35
Prime Value	1	12.5%	205	701	705	4	60	64
Prime Growth	1	12.1%	194	603	551	-52	112	60

Note: Based on constituent stocks as of regular reconstitution in Nov 2018. Market cap data as of 19 Nov 2018. We estimated the number of days' impact (maximum) for each index as the number of days required for a scheduled reconstitution of a ¥100bn passive fund that tracks the index using the full replication approach, based on $[\max (| \text{market cap before reconstitution} - \text{market cap after reconstitution} | / \text{average daily trading value})]$. Average daily trading value is the average over the year to 15 Oct 2018, the date of determination for the regular reconstitution of the Russell/Nomura indexes. Turnover ratio is $[\sum | \text{market cap weighting before reconstitution} - \text{market cap weighting after reconstitution} | / 2]$.

Source: Nomura

5.3. Estimating number of days of impact and minimum unit of investment when a fund is established

Figure 17 shows the minimum unit of investment and number of days of impact when passive funds are established that track indices using the full replication approach.

The minimum unit of investment is calculated as shown below. Our calculation assumes at least 50% of shares in a stock trading unit are included, as we round up for incomplete trading units.

$$\text{Minimum unit of investment} = \max_{i=1..n} \left\{ \frac{\text{trading unit } i \times 50\% \times \text{transaction price } i}{\text{index weighting } i} \right\}$$

Here the notation "n" represents the number of stocks in the index and the notation "i" indicates the *i*th stock in the index.

As the minimum unit of investment is calculated by dividing the minimum investment amount for each constituent stock by its weighting, the smaller the minimum investment amount for the constituent stock, or the larger its weighting, the smaller the minimum unit of investment will be. The method for calculating the number of impact days is the same as in 5.2.

Fig. 17: Number of days of impact and minimum unit of investment when a fund is established

Index	No. of days of impact Maximum (days)	Minimum unit of investment (¥bn)	Index market cap (¥trn)	Number of stocks
Total Market	2	20.7	411	1,600
Value	3	23.5	212	1,108
Growth	2	33.6	199	877
Large	1	2.0	348	350
Large Value	1	2.8	174	223
Large Growth	1	1.5	174	231
Top	1	0.2	208	70
Top Value	1	1.1	104	47
Top Growth	1	0.2	104	45
Mid	1	0.8	140	280
Mid Value	1	1.1	70	176
Mid Growth	1	0.6	70	186
Mid-Small	3	10.2	203	1,530
Mid-Small Value	5	12.0	108	1,061
Mid-Small Growth	4	16.0	95	832
Small	8	3.2	63	1,250
Small Value	12	4.2	38	885
Small Growth	13	4.2	25	646
Small Core	9	2.2	44	450
Small Core Value	11	1.9	26	322
Small Core Growth	8	3.0	18	243
Micro	24	0.8	19	800
Micro Value	38	1.3	12	563
Micro Growth	44	1.0	7	403
Prime	1	4.7	399	1,000
Prime Value	1	15.5	205	705
Prime Growth	1	18.5	194	551

Note: Based on constituent stocks as of regular reconstitution in Nov 2018. Market cap data as of 19 Nov 2018. We estimated the number of days of impact (maximum) for each index as the number of days required to set up a new ¥100bn passive fund that tracks the index using the full replication approach, based on [max (market cap / average daily trading value)]. Average daily trading value is the average over the year to 15 Oct 2018, the date of determination for the regular reconstitution of the Russell/Nomura indexes.

Source: Nomura

6. Data publication services

Data for the Russell/Nomura Japan Equity Indexes can be obtained via the following channels.²

Index values are published in the following media:

- Bloomberg (RNJI)
- Jiji (RNSI/12400, RNSIIDV/12400)
- QUICK (NRIJ500–503, 510–517)
- Reuters (FRCNRI01, FRCNRI02, FRCNRI03, FRCNRI04, .JRNP, .JRNS)
- Our website (<http://qr.nomura.co.jp/en/frcnri/index.html>)

Intraday index values for the Russell/Nomura Prime Index are published in the following media:

- Bloomberg (RNPJ <INDEX>)
- Jiji (RNP/NOMURA)
- QUICK (140)

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- QUICK (130)

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For information, contact:

Nomura Research Institute
Investment Information Systems Business Department
+81- 45-613-7200
e-mail: ids-sales@nri.co.jp

Other reports:

Russell/Nomura Japan Equity Indexes rulebook
Russell/Nomura Japan Equity Indexes - Performance summary (monthly reports)

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Nomura Research Institute

Investment Information Systems Business Department

Telephone: 045-613-7200

E-mail: ids-sales@nri.co.jp

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Investment Information Systems Business Department

Telephone: 045-613-7200

E-mail: ids-sales@nri.co.jp

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Nomura Securities

Global Research Division,
Financial Engineering & Technology Research Center
Index Operations Dept.

Telephone: 03-6703-3986

E-mail: idx_mgr@jp.nomura.com

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Nomura Securities

Global Research Division,
Financial Engineering & Technology Research Center
Index Operations Dept.

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Appendix A-1

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Transactions involving convertible bonds are subject to a sales commission of up to 1.08% of the transaction amount (or a commission of ¥4,320 if this would be less than ¥4,320). When convertible bonds are purchased via OTC transactions (including offerings), only the purchase price shall be paid, with no sales commission charged. However, Nomura Securities may charge a separate fee for OTC transactions, as agreed with the customer. Convertible bonds carry the risk of losses owing to factors such as interest rate fluctuations and price fluctuations in the underlying stock. In addition, convertible bonds denominated in foreign currencies also carry the risk of losses owing to factors such as foreign exchange rate fluctuations.

When bonds are purchased via public offerings, secondary distributions, or other OTC transactions with Nomura Securities, only the purchase price shall be paid, with no sales commission charged. Bonds carry the risk of losses, as prices fluctuate in line with changes in market interest rates. Bond prices may also fall below the invested principal as a result of such factors as changes in the management and financial circumstances of the issuer, or changes in third-party valuations of the bond in question. In addition, foreign currency-denominated bonds also carry the risk of losses owing to factors such as foreign exchange rate fluctuations.

When Japanese government bonds (JGBs) for individual investors are purchased via public offerings, only the purchase price shall be paid, with no sales commission charged. As a rule, JGBs for individual investors may not be sold in the first 12 months after issuance. When JGBs for individual investors are sold before maturity, an amount calculated via the following formula will be subtracted from the par value of the bond plus accrued interest: (1) for 10-year variable rate bonds, an amount equal to the two preceding coupon payments (before tax) x 0.79685 will be used, (2) for 5-year and 3-year fixed rate bonds, an amount equal to the two preceding coupon payments (before tax) x 0.79685 will be used.

When inflation-indexed JGBs are purchased via public offerings, secondary distributions (uridashi deals), or other OTC transactions with Nomura Securities, only the purchase price shall be paid, with no sales commission charged. Inflation-indexed JGBs carry the risk of losses, as prices fluctuate in line with changes in market interest rates and fluctuations in the nationwide consumer price index. The notional principal of inflation-indexed JGBs changes in line with the rate of change in nationwide CPI inflation from the time of its issuance. The amount of the coupon payment is calculated by multiplying the coupon rate by the notional principal at the time of payment. The maturity value is the amount of the notional principal when the issue becomes due. For J17 and subsequent issues, the maturity value shall not undercut the face amount. Purchases of investment trusts (and sales of some investment trusts) are subject to a purchase or sales fee of up to 5.4% of the transaction amount. Also, a direct cost that may be incurred when selling investment trusts is a fee of up to 2.0% of the unit price at the time of redemption. Indirect costs that may be incurred during the course of holding investment trusts include, for domestic investment trusts, an asset management fee (trust fee) of up to 5.4% (annualized basis) of the net assets in trust, as well as fees based on investment performance. Other indirect costs may also be incurred. For foreign investment trusts, indirect fees may be incurred during the course of holding such as investment company compensation.

Investment trusts invest mainly in securities such as Japanese and foreign equities and bonds, whose prices fluctuate. Investment trust unit prices fluctuate owing to price fluctuations in the underlying assets and to foreign exchange rate fluctuations. As such, investment trusts carry the risk of losses. Fees and risks vary by investment trust. Maximum applicable fees are subject to change; please thoroughly read the written materials provided, such as prospectuses or documents delivered before making a contract.

In interest rate swap transactions and USD/JPY basis swap transactions ("interest rate swap transactions, etc."), only the agreed transaction payments shall be made on the settlement dates. Some interest rate swap transactions, etc. may require pledging of margin collateral. In some of these cases, transaction payments may exceed the amount of collateral. There shall be no advance notification of required collateral value or collateral ratios as they vary depending on the transaction. Interest rate swap transactions, etc. carry the risk of losses owing to fluctuations in market prices in the interest rate, currency and other markets, as well as reference indices. Losses incurred as such may exceed the value of margin collateral, in which case margin calls may be triggered. In the event that both parties agree to enter a replacement (or termination) transaction, the interest rates received (paid) under the new arrangement may differ from those in the original arrangement, even if terms other

than the interest rates are identical to those in the original transaction. Risks vary by transaction. Please thoroughly read the written materials provided, such as documents delivered before making a contract and disclosure statements.

In OTC transactions of credit default swaps (CDS), no sales commission will be charged. When entering into CDS transactions, the protection buyer will be required to pledge or entrust an agreed amount of margin collateral. In some of these cases, the transaction payments may exceed the amount of margin collateral. There shall be no advance notification of required collateral value or collateral ratios as they vary depending on the financial position of the protection buyer. CDS transactions carry the risk of losses owing to changes in the credit position of some or all of the referenced entities, and/or fluctuations of the interest rate market. The amount the protection buyer receives in the event that the CDS is triggered by a credit event may undercut the total amount of premiums that he/she has paid in the course of the transaction. Similarly, the amount the protection seller pays in the event of a credit event may exceed the total amount of premiums that he/she has received in the transaction. All other conditions being equal, the amount of premiums that the protection buyer pays and that received by the protection seller shall differ. In principle, CDS transactions will be limited to financial instruments business operators and qualified institutional investors. No account fee will be charged for marketable securities or monies deposited. Transfers of equities to another securities company via the Japan Securities Depository Center are subject to a transfer fee of up to ¥10,800 per issue transferred depending on volume.

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