

Russell/Nomura Japan Equity Indexes FY17 handbook

EQUITY QUANTITATIVE RESEARCH (INDEX)

Global Markets Research

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Research analysts

Japan index products

Yumiko Hirano - NSC

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

Naoko Kato - NSC

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

This report constitutes the Russell/Nomura Japan Equity Indexes FY17 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 FTSE Russell Indexes 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

Russell/Nomura Japan Equity Indexes have the following characteristics:

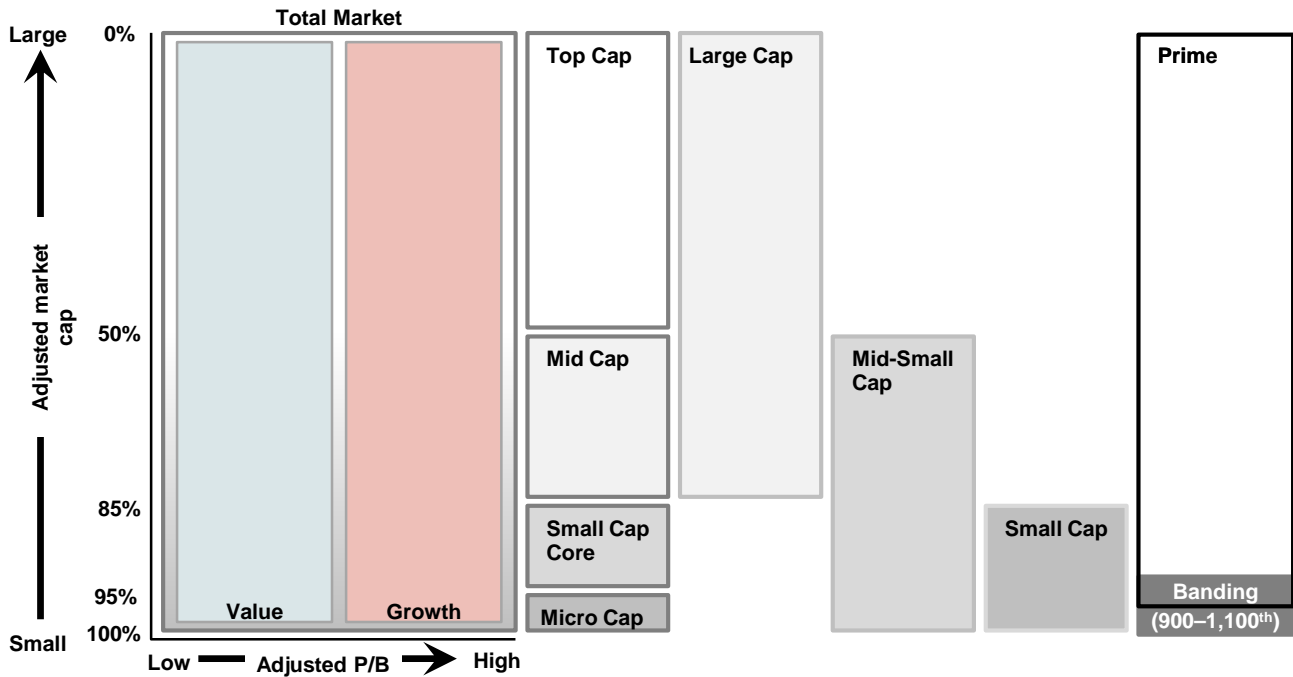
- They are share price indexes that are weighted by free-float adjusted market capitalization and cover the top 98% of all listed stocks in terms of float-adjusted market capitalization, thereby offering broad market coverage
- In addition to stocks listed on the First Section of the Tokyo Stock Exchange (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.

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

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 value, and 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	1,380	1,985	351	529	537
Other	120	1,658	4	9	19
Total	1,500	3,643	355	538	557

Note: Market cap data as of 18 Nov 2016. The Russell/Nomura Total Market Index (Russell/Nomura) is as of the Nov 2016 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	1,500	100.0%	12,426.2	8.3
Value	1,104	51.2%	11,479.6	0.6
Growth	801	48.8%	5,882.9	0.7
Large	350	85.3%	12,426.2	147.1
Large Value	219	41.6%	11,479.6	11.1
Large Growth	242	43.7%	5,882.9	14.5
Top	70	51.4%	12,426.2	988.3
Top Value	43	24.9%	11,479.6	169.2
Top Growth	48	26.5%	5,882.9	331.1
Mid	280	33.9%	1,245.7	147.1
Mid Value	176	16.6%	1,245.7	11.1
Mid Growth	194	17.2%	1,237.2	14.5
Mid-Small	1,430	48.6%	1,245.7	8.3
Mid-Small Value	1,061	26.2%	1,245.7	0.6
Mid-Small Growth	753	22.3%	1,237.2	0.7
Small	1,150	14.7%	200.1	8.3
Small Value	885	9.6%	200.1	0.6
Small Growth	559	5.1%	175.3	0.7
Small Core	400	10.0%	200.1	39.1
Small Core Value	302	6.4%	200.1	3.1
Small Core Growth	214	3.6%	175.3	3.0
Micro	750	4.7%	52.3	8.3
Micro Value	583	3.2%	51.5	0.6
Micro Growth	345	1.5%	50.9	0.7
Prime	1,000	97.7%	12,426.2	19.4
Prime Value	733	49.7%	11,479.6	1.9
Prime Growth	563	47.9%	5,882.9	1.8

Note: Based on constituent stocks as of regular reconstitutions in Nov 2016. Market cap data as of 18 Nov 2016.

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

(yyyy-mm)	Total		Large	Small	Prime
	Value	Growth			
198101	1,091	656	400	691	-
198201	1,091	708	400	691	-
198301	1,091	766	400	691	-
198401	1,091	738	400	691	-
198501	1,104	706	400	704	-
198601	1,142	733	400	742	-
198701	1,142	833	400	742	-
198801	1,199	860	400	799	-
198901	1,267	877	400	867	-
199001	1,381	827	500	881	-
199101	1,561	920	500	1,061	-
199201	1,585	1,017	500	1,085	-
199301	1,586	1,092	500	1,086	-
199401	1,586	1,118	500	1,086	-
199501	1,749	1,111	500	1,249	-
199601	1,754	1,191	500	1,254	-
199701	1,854	1,251	500	1,354	-
199801	1,854	1,575	500	1,354	1,000
199901	1,854	1,584	500	1,354	1,000
200001	1,854	1,551	500	1,354	1,000
200101	1,854	1,544	500	1,354	1,000
200202	1,853	1,573	300	1,553	1,000
200212	1,500	1,225	300	1,200	1,000
200312	1,600	1,233	350	1,250	1,000
200412	1,700	1,231	400	1,300	1,000
200512	1,799	1,218	400	1,399	1,000
200612	1,700	1,241	350	1,350	1,000
200712	1,500	1,164	300	1,200	1,000
200812	1,400	1,111	300	1,100	1,000
200912	1,500	1,139	350	1,150	1,000
201012	1,400	1,081	300	1,100	1,000
201112	1,400	1,044	350	1,050	1,000
201212	1,500	1,159	350	1,150	1,000
201312	1,400	1,043	300	1,100	1,000
201412	1,500	1,103	350	1,150	1,000
201512	1,400	1,000	350	1,050	1,000
201611	1,500	1,104	350	1,150	1,000

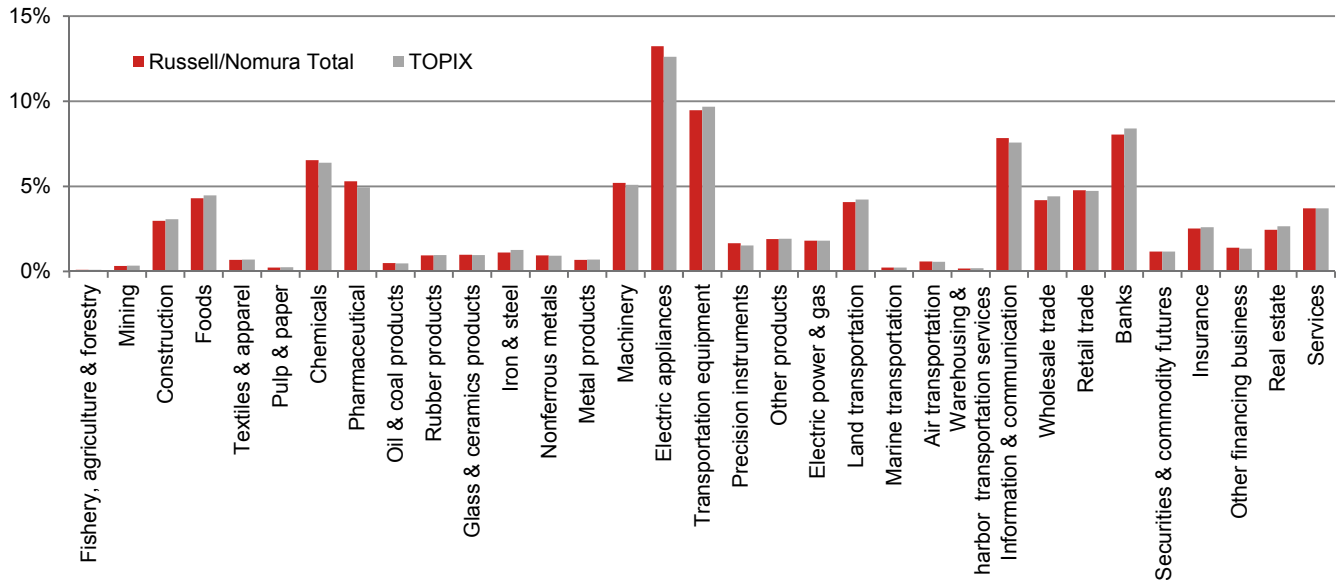
Note: As of regular reconstitution date of each year.

Source: Nomura

3.3. Sector allocation

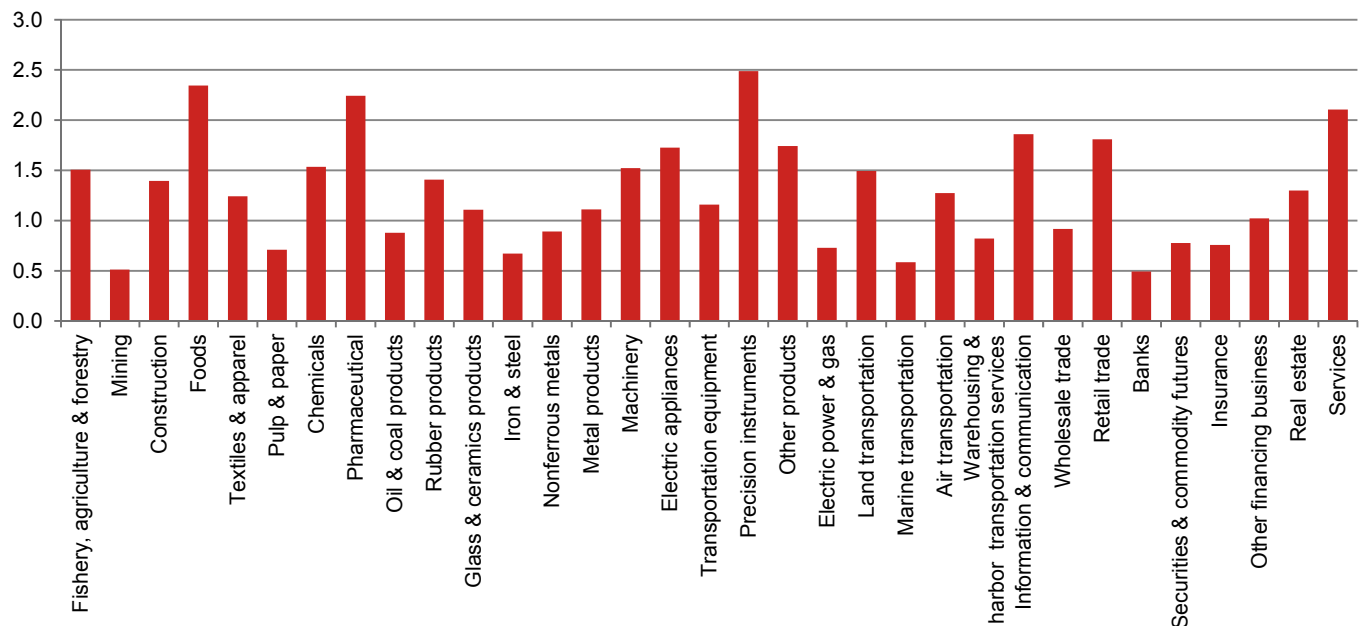
Figure 5 shows the percentage of Russell/Nomura Total Market Index market capitalization in each of 33 sectors. Compared with the TOPIX, the Russell/Nomura Total Market Index is more heavily weighted toward the electric appliances sector and less heavily weighted toward the banks sector.

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 regular reconstitution date in Nov 2016. Market cap data as of 18 Nov 2016. 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 2016. Market cap data as of 14 Oct 2016, 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	9984	Softbank Group
2	9432	Nippon Telegraph and Telephone	8306	Mitsubishi UFJ FG	9433	KDDI
3	8306	Mitsubishi UFJ FG	9432	Nippon Telegraph and Telephone	2914	Japan Tobacco
4	9984	Softbank Group	7267	Honda Motor	6758	Sony
5	9433	KDDI	8316	Sumitomo Mitsui FG	4502	Takeda Pharmaceutical
6	7267	Honda Motor	8411	Mizuho FG	6954	Fanuc
7	2914	Japan Tobacco	8058	Mitsubishi Corp	6861	Keyence
8	6758	Sony	8766	Tokio Marine HD	9437	NTT Docomo
9	8316	Sumitomo Mitsui FG	6501	Hitachi	4503	Astellas Pharma
10	8411	Mizuho FG	7201	Nissan Motor	3382	Seven & i HD

Rank	Mid		Mid Value		Mid Growth	
1	7269	Suzuki Motor	8309	Sumitomo Mitsui Trust HD	4755	Rakuten
2	4755	Rakuten	1605	Inpex	6988	Nitto Denko
3	6988	Nitto Denko	8601	Daiwa Securities Group	4528	Ono Pharmaceutical
4	4528	Ono Pharmaceutical	5020	JXTG HD	9983	Fast Retailing
5	9983	Fast Retailing	7261	Mazda Motor	4543	Terumo
6	4543	Terumo	9502	Chubu Electric Power	7269	Suzuki Motor
7	9201	Japan Airlines	8308	Resona HD	2802	Ajinomoto
8	2802	Ajinomoto	1928	Sekisui House	7733	Olympus
9	9021	West Japan Railway	3407	Asahi Kasei	4911	Shiseido
10	8309	Sumitomo Mitsui Trust HD	9531	Tokyo Gas	8113	Unicharm

Rank	Small Core		Small Core Value		Small Core Growth	
1	4587	PeptiDream	4114	Nippon Shokubai	4587	PeptiDream
2	4114	Nippon Shokubai	4004	Showa Denko	3064	MonotaRO
3	4004	Showa Denko	6417	Sankyo	7550	Zensho HD
4	3064	MonotaRO	9301	Mitsubishi Logistics	1893	Penta-Ocean Construction
5	6417	Sankyo	7240	NOK	2121	Mixi
6	9301	Mitsubishi Logistics	1911	Sumitomo Forestry	4527	Rohto Pharmaceutical
7	7240	NOK	4062	Ibiden	8572	Acom
8	6856	Horiba	8377	Hokuhoku FG	2201	Morinaga
9	4527	Rohto Pharmaceutical	8334	Gunma Bank	6136	OSG
10	5714	Dowa HD	5232	Sumitomo Osaka Cement	7458	Daiichikosho

Rank	Micro		Micro Value		Micro Growth	
1	6727	Wacom	4212	Sekisui Jushi	6727	Wacom
2	7483	Doshisha	2288	Marudai Food	7730	Mani
3	4212	Sekisui Jushi	8698	Monex Group	2412	Benefit One
4	2288	Marudai Food	7862	Toppan Forms	7447	Nagaileben
5	9682	DTS	8343	Akita Bank	8160	Kisoji
6	8698	Monex Group	3132	Macnica Fuji Electronics HD	3167	Tokai HD
7	6908	Iriso Electronics	8325	Hokuetsu Bank	3387	Create Restaurants HD
8	7730	Mani	8050	Seiko HD	9058	Trancom
9	7862	Toppan Forms	5707	Toho Zinc	2222	Kotobuki Spirits
10	8343	Akita Bank	6581	Hitachi Koki	8200	Ringer Hut

Rank	Prime		Prime Value		Prime Growth	
1	7203	Toyota Motor	7203	Toyota Motor	9984	Softbank Group
2	9432	Nippon Telegraph and Telephone	8306	Mitsubishi UFJ FG	9433	KDDI
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Note: As of 14 Oct 2016, 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

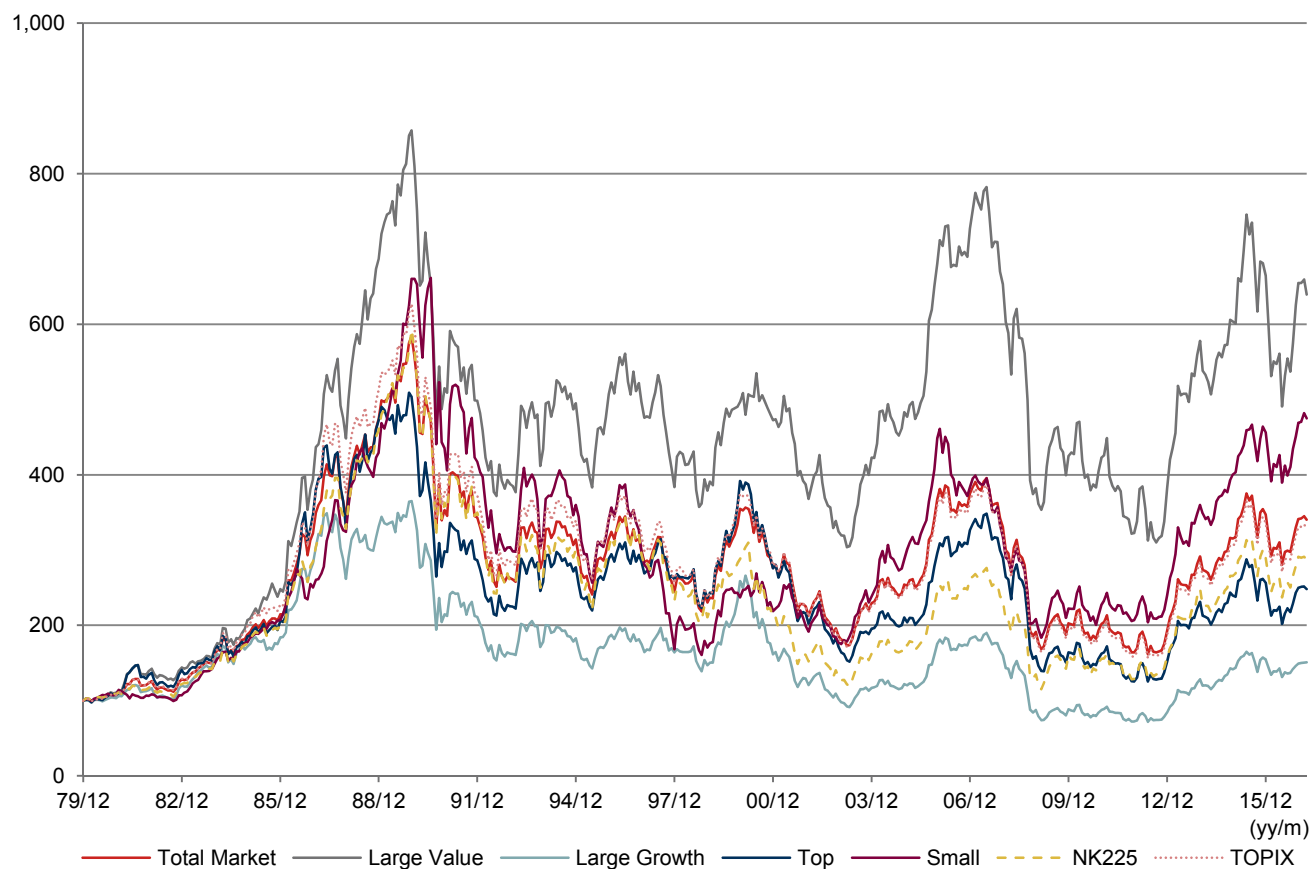
Index	Excluding dividends					Including dividends				
	1 yr	2 yrs	5 yrs	10 yrs	Jan 2001–	1 yr	2 yrs	5 yrs	10 yrs	Jan 2001–
Total Market	12.72%	0.87%	13.08%	0.73%	2.88%	14.84%	2.95%	15.15%	2.74%	4.55%
Value	17.57%	2.20%	12.80%	1.28%	4.50%	20.07%	4.67%	15.15%	3.46%	6.33%
Growth	8.73%	-0.18%	13.48%	0.23%	1.30%	10.50%	1.54%	15.29%	2.09%	2.81%
Large	12.40%	0.01%	12.76%	0.23%	2.33%	14.52%	2.12%	14.87%	2.27%	4.01%
Large Value	17.09%	1.28%	12.38%	0.55%	3.71%	19.62%	3.80%	14.79%	2.75%	5.55%
Large Growth	9.00%	-0.83%	13.26%	0.08%	1.23%	10.77%	0.91%	15.10%	1.96%	2.76%
Top	13.29%	-0.72%	11.94%	-0.74%	1.17%	15.58%	1.62%	14.28%	1.50%	2.96%
Top Value	17.38%	0.67%	11.66%	-0.14%	2.43%	20.13%	3.46%	14.37%	2.26%	4.38%
Top Growth	10.47%	-1.54%	12.40%	-0.83%	0.44%	12.39%	0.41%	14.43%	1.26%	2.12%
Mid	11.54%	1.15%	14.02%	1.68%	4.15%	13.38%	2.93%	15.81%	3.43%	5.66%
Mid Value	17.12%	2.30%	13.39%	1.67%	5.33%	19.37%	4.49%	15.42%	3.63%	7.04%
Mid Growth	7.21%	0.21%	14.62%	1.72%	2.58%	8.74%	1.69%	16.18%	3.29%	3.91%
Mid-Small	12.42%	2.53%	14.28%	2.23%	4.75%	14.37%	4.38%	16.11%	4.04%	6.31%
Mid-Small Value	18.04%	3.72%	13.86%	2.68%	6.23%	20.32%	5.91%	15.91%	4.67%	7.96%
Mid-Small Growth	7.12%	1.40%	14.79%	1.67%	2.47%	8.70%	2.90%	16.35%	3.26%	3.80%
Small	14.70%	6.27%	15.14%	3.51%	6.24%	16.83%	8.27%	17.07%	5.43%	7.89%
Small Value	19.99%	6.61%	14.87%	4.34%	7.81%	22.29%	8.83%	16.99%	6.40%	9.60%
Small Growth	6.66%	6.02%	15.88%	1.88%	2.58%	8.45%	7.65%	17.48%	3.52%	3.91%
Small Core	13.96%	5.93%	15.04%	3.43%	5.82%	16.06%	7.89%	16.93%	5.32%	7.43%
Small Core Value	19.62%	6.12%	14.49%	4.03%	7.40%	21.86%	8.27%	16.54%	6.03%	9.15%
Small Core Growth	5.90%	5.94%	16.13%	2.48%	2.52%	7.77%	7.61%	17.77%	4.16%	3.87%
Micro	16.38%	7.11%	15.48%	3.75%	7.02%	18.49%	9.15%	17.46%	5.73%	8.73%
Micro Value	20.90%	7.62%	15.62%	4.96%	8.50%	23.29%	9.92%	17.82%	7.12%	10.38%
Micro Growth	8.68%	6.54%	15.54%	0.49%	2.75%	10.20%	8.03%	17.01%	2.02%	4.02%
Prime	12.60%	0.70%	13.02%	0.66%	2.80%	14.76%	2.81%	15.10%	2.68%	4.47%
Prime Value	17.52%	2.09%	12.77%	1.19%	4.39%	20.03%	4.57%	15.12%	3.38%	6.22%
Prime Growth	8.66%	-0.35%	13.40%	0.20%	1.29%	10.42%	1.39%	15.21%	2.06%	2.81%
TOPIX	12.66%	0.66%	13.02%	0.65%	2.61%	14.77%	2.77%	15.11%	2.66%	4.29%

Note: As of end-Mar 2017. 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 2017, rebased so that end-Dec 1979 = 100.

Source: Nomura

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

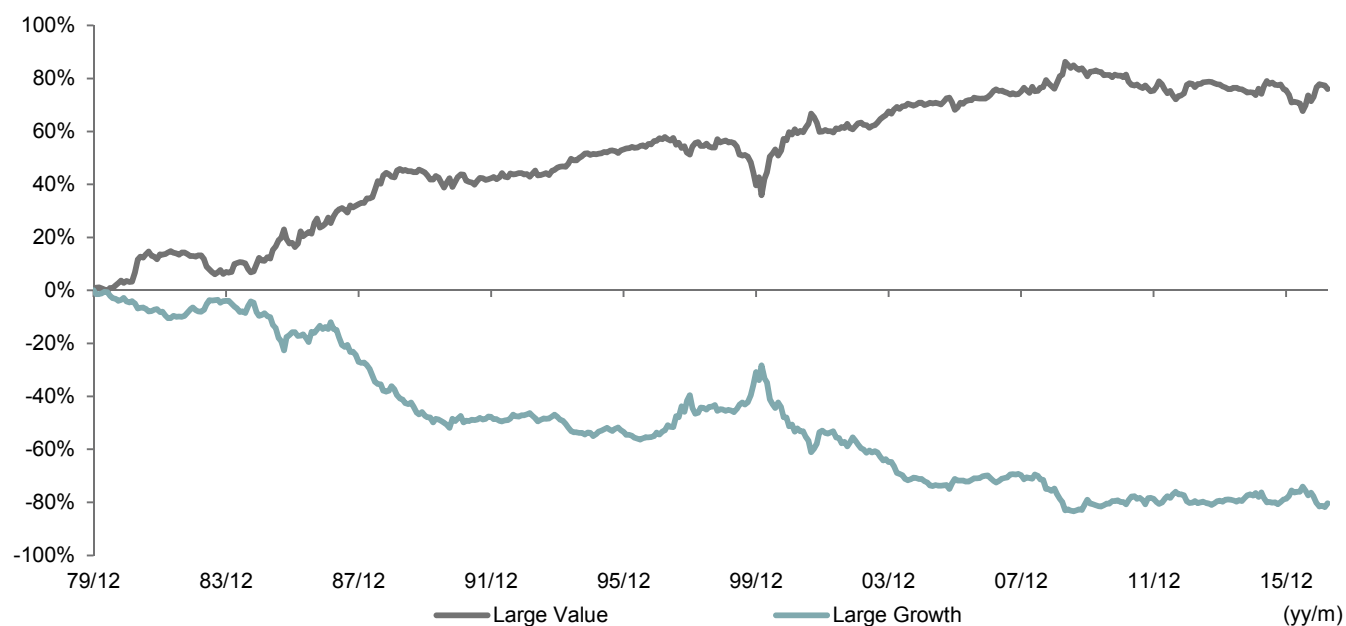
	Average returns	Standard deviation	Russell/Nomura	TOPIX	Nikkei 225
Russell/Nomura	4.95%	18.16%	1		
TOPIX	4.93%	18.52%	0.9948	1	
Nikkei 225	4.82%	19.78%	0.9616	0.9606	1

Note: Russell/Nomura is Russell/Nomura Total Market Index. Based on monthly returns (yen basis, excluding dividends) in Jan 1980–Mar 2017. 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 2017.
Source: Nomura

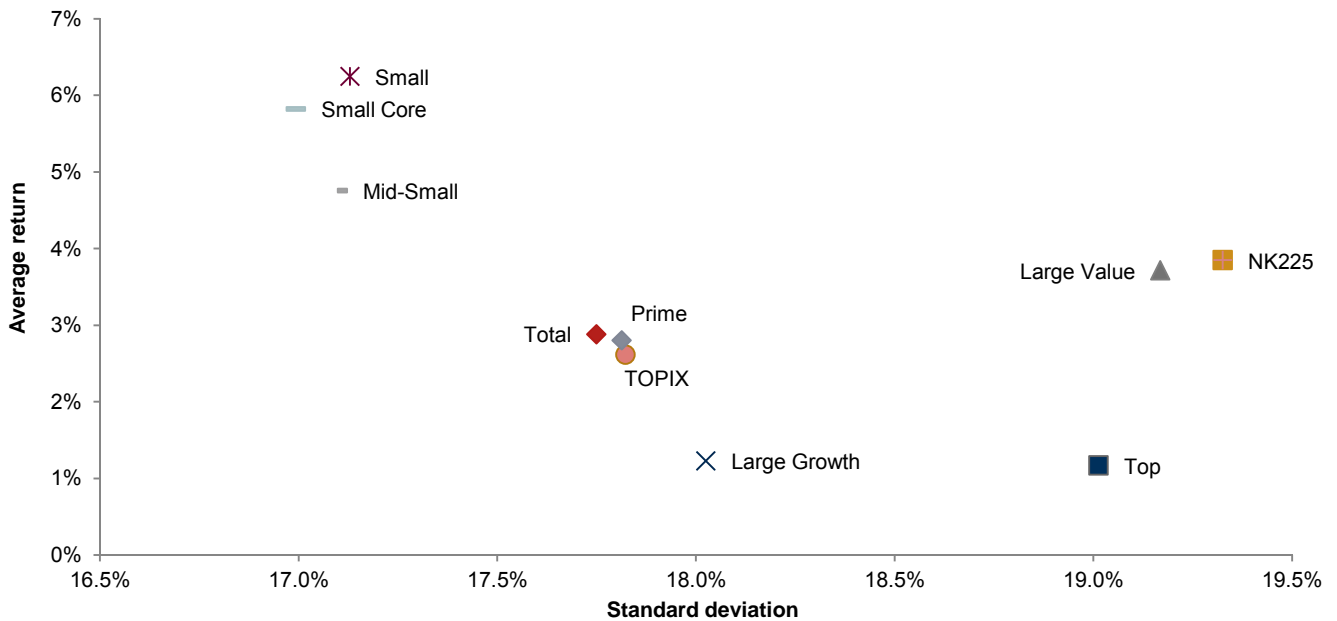
Fig. 12: Cumulative excess returns on size-based indexes



Note: Shows cumulative excess monthly returns (including dividends) on each index versus the Russell/Nomura Total Market Index, Jan 1980–Mar 2017.
Source: Nomura

4.4. Risk-return characteristics of individual indexes

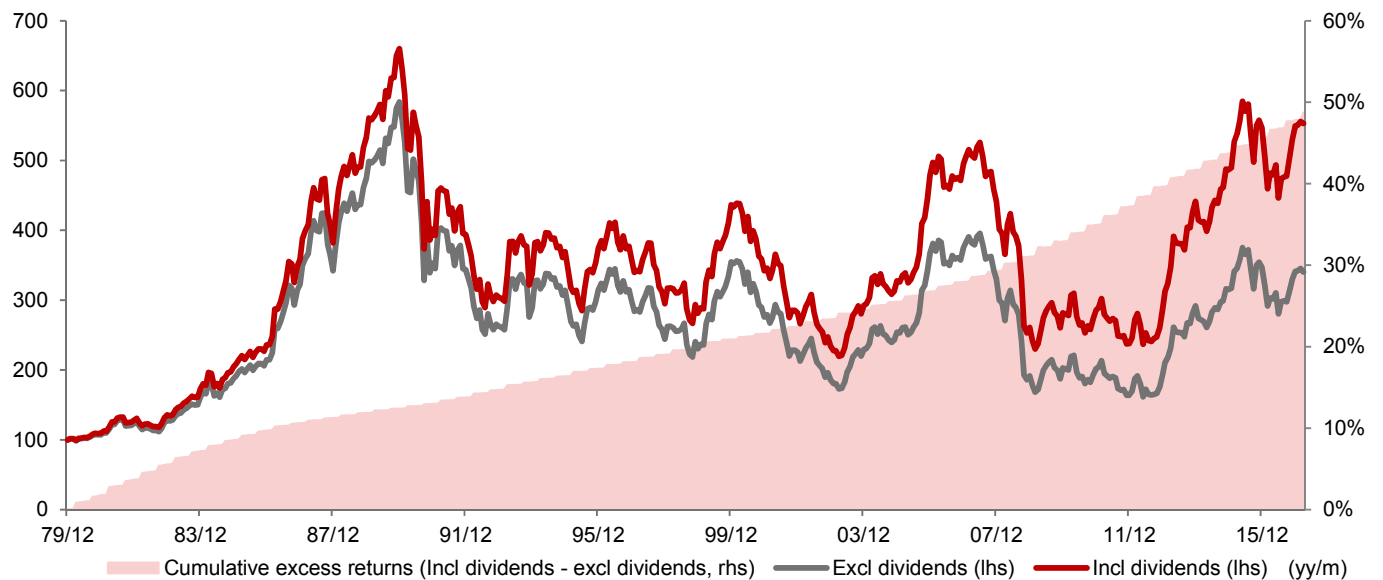
Fig. 13: Average return and standard deviation of individual indexes



Note: Shows average returns and standard deviation on annualized basis, calculated from monthly returns (excluding dividends) in Jan 2001–Mar 2017.
 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 2017, 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%	3.5%	13.1%	-
198201	2.1%	15.7%	3.1%	12.1%	-
198301	2.1%	15.2%	3.1%	13.5%	-
198401	2.6%	14.2%	4.3%	16.2%	-
198501	2.9%	16.3%	4.1%	17.5%	-
198601	3.7%	15.6%	4.8%	16.2%	-
198701	2.3%	17.5%	3.3%	18.4%	-
198801	3.5%	12.4%	5.1%	16.8%	-
198901	3.7%	17.1%	4.9%	15.8%	-
199001	3.0%	15.9%	7.2%	27.3%	-
199101	3.4%	19.0%	4.6%	20.9%	-
199201	1.9%	13.1%	3.1%	13.6%	-
199301	1.9%	12.0%	3.2%	13.3%	-
199401	1.5%	11.7%	2.6%	12.0%	-
199501	3.3%	13.6%	4.0%	15.4%	-
199601	2.2%	13.1%	2.5%	9.8%	-
199701	2.2%	18.0%	2.3%	10.7%	-
199801	1.4%	18.4%	2.5%	16.6%	1.4%
199901	3.1%	12.9%	4.1%	12.3%	3.0%
200001	3.4%	31.3%	5.4%	31.8%	3.5%
200101	2.8%	18.6%	3.8%	18.3%	2.7%
200202	2.5%	16.7%	7.6%	43.0%	2.4%
200212	3.3%	15.5%	4.7%	15.8%	2.2%
200312	2.5%	19.6%	4.6%	20.2%	2.1%
200412	3.5%	17.5%	4.9%	18.9%	3.4%
200512	3.2%	21.0%	3.8%	15.8%	3.1%
200612	2.5%	18.6%	3.1%	16.4%	2.5%
200712	1.8%	20.5%	3.5%	18.8%	1.7%
200812	1.6%	29.3%	3.8%	17.6%	1.7%
200912	1.6%	26.8%	4.2%	21.6%	1.5%
201012	1.8%	14.5%	3.1%	15.8%	1.8%
201112	1.6%	16.2%	4.6%	20.6%	1.5%
201212	1.9%	13.2%	2.7%	11.9%	1.7%
201312	1.6%	16.1%	3.2%	20.1%	1.7%
201412	1.7%	11.9%	3.9%	19.0%	1.5%
201512	1.7%	13.1%	2.7%	12.2%	1.7%
201611	1.3%	14.6%	2.3%	12.9%	1.1%
Average	2.4%	16.7%	3.9%	17.3%	2.1%

Note: Turnover ratio is $[\sum | \text{market cap weighting before reconstitution} - \text{market cap weighting after reconstitution} | / 2]$, 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	1.3%	355	1,395	1,500	105	35	140
Value	2	14.6%	181	996	1,104	108	65	173
Growth	4	13.9%	173	757	801	44	111	155
Large	1	2.3%	302	352	350	-2	28	26
Large Value	1	16.3%	147	221	219	-2	38	36
Large Growth	1	14.4%	155	240	242	2	35	37
Top	1	9.8%	182	60	70	10	4	14
Top Value	1	18.8%	88	34	43	9	1	10
Top Growth	1	20.0%	94	40	48	8	4	12
Mid	1	16.8%	120	292	280	-12	42	30
Mid Value	1	23.4%	59	187	176	-11	42	31
Mid Growth	1	27.8%	61	200	194	-6	45	39
Mid-Small	4	10.0%	172	1,335	1,430	95	49	144
Mid-Small Value	4	17.0%	93	962	1,061	99	69	168
Mid-Small Growth	8	23.9%	79	717	753	36	121	157
Small	11	12.9%	52	1,043	1,150	107	60	167
Small Value	9	20.1%	34	775	885	110	61	171
Small Growth	32	26.7%	18	517	559	42	102	144
Small Core	4	22.6%	35	349	400	51	45	96
Small Core Value	6	29.0%	23	255	302	47	36	83
Small Core Growth	5	33.7%	13	202	214	12	57	69
Micro	34	21.2%	17	694	750	56	102	158
Micro Value	27	22.8%	11	520	583	63	77	140
Micro Growth	107	37.3%	5	315	345	30	88	118
Prime	1	1.1%	346	996	1,000	4	28	32
Prime Value	1	14.5%	176	709	733	24	54	78
Prime Growth	1	13.9%	170	566	563	-3	84	81

Note: Based on constituent stocks as of regular reconstitution in Nov 2016. Market cap data as of 18 Nov 2016. 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 $(\text{market cap before reconstitution} - \text{market cap after reconstitution}) / \text{average daily trading value}$. Average daily trading value is the average over the year to 14 Oct 2016, the date of determination for the regular reconstitution of the Russell/Nomura indexes. Turnover ratio is $(\Sigma \text{ market cap weighting before reconstitution} - \text{market cap weighting after reconstitution}) / 2$.

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.

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

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	35.4	355	1,500
Value	3	255.0	181	1,104
Growth	4	63.3	173	801
Large	1	1.8	302	350
Large Value	1	5.3	147	219
Large Growth	1	1.6	155	242
Top	1	0.2	182	70
Top Value	1	0.3	88	43
Top Growth	1	0.1	94	48
Mid	1	0.7	120	280
Mid Value	2	2.1	59	176
Mid Growth	1	0.6	61	194
Mid-Small	4	17.2	172	1,430
Mid-Small Value	5	130.8	93	1,061
Mid-Small Growth	8	28.9	79	753
Small	11	5.2	52	1,150
Small Value	13	47.9	34	885
Small Growth	32	6.7	18	559
Small Core	5	3.5	35	400
Small Core Value	6	31.8	23	302
Small Core Growth	11	1.4	13	214
Micro	34	1.2	17	750
Micro Value	37	2.3	11	583
Micro Growth	107	2.0	5	345
Prime	1	34.5	346	1,000
Prime Value	1	247.8	176	733
Prime Growth	1	46.1	170	563

Note: Based on constituent stocks as of regular reconstitution in Nov 2016. Market cap data as of 18 Nov 2016. 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 14 Oct 2016, the date of determination for the regular reconstitution of the Russell/Nomura indexes.

Source: Nomura

6. Data publication services

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Index values are published in the following media:

- Bloomberg (RNJI)
- Jiji (RNSI/12400, RNSIIDV/12400)
- QUICK (NRIJ500–503, 510–517)
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- Bloomberg (RNPJ <INDEX>)
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- QUICK (140)

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Nomura Research Institute
Investment Information Systems Business Department
+81-45-277-9260
e-mail: ids-sales@nri.co.jp

Other reports:

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Nomura Research Institute

Investment Information Systems Business Department

Telephone:045-277-9260

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Nomura Securities

Global Research Division,
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Appendix A-1

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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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