

# **Russell/Nomura Japan Equity Indexes**

Global Markets Research 23 April 2021

**EQUITY: EQUITY QUANTITATIVE RESEARCH (INDEX)** 

#### FY21 handbook

**Research Analysts** 

Japan index products

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This report constitutes the Russell/Nomura Japan Equity Indexes FY21 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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# Contents

1. Introduction	2
Russell/Nomura Japan Equity Indexes	_
3. Russell/Nomura Japan Equity Indexes: composition	
3.1. Number of stocks and market capitalization	
3.2. Number of stocks as of date of regular reconstitution	
3.3. Sector allocation	7
3.4. Top 10 stocks by market capitalization	8
4. Performance analysis	9
4.1. Annual returns	9
4.2. Performance	10
4.3. Relative performance of style indexes	11
4.4. Risk-return characteristics of individual indexes	12
4.5. Impact of dividends  5. Index investability	12
5. Index investability	13
5.1. Turnover ratios as of regular reconstitutions	13
5.2. Estimated number of days' impact in the case of regular reconstitutions	14
5.3. Estimating number of days of impact and minimum unit of investment when a fund is established	15
6. Data publication services	16
Russell/Nomura Japan Index Contacts	17
Appendix A-1	18

### 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

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 all of Japan's stock exchanges<sup>[1]</sup>
- 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.

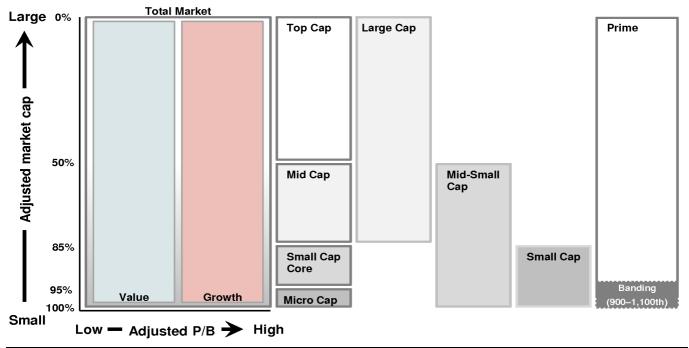
Complete details of rules for the Russell/Nomura Japan Equity Index can be found in the Russell/Nomura Japan Equity Index Rulebook.

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



- 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	1,450	2,175	422	634	656		
Other	150	1,658	7	15	27		
Total	1,600	3,833	429	649	683		

Note: Market cap data as of 19 Nov 2020. The Russell/Nomura Total Market Index (Russell/Nomura) is as of the Nov 2020 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

			Market cap of largest and	smallest stock (¥100mn)
Index	Number of stocks	% of total market cap	Largest	Smallest
Total Market	1,600	100.0%	113,160	85
Value	1,228	51.0%	98,818	7
Growth	813			
Large	350	86.2%	113,160	1,338
Large Value	242	41.6%	· ·	
Large Growth	214			
Тор	60	50.1%	113,160	15,648
Top Value	38	22.7%	98,818	
Top Growth	39		,	
Mid	290	36.1%	17,543	1,338
Mid Value	204		16,443	119
Mid Growth	175	17.2%	,	
Mid-Small	1,540		17,543	85
Mid-Small Value	1,190	28.3%	16,443	7
Mid-Small Growth	774		*	
Small	1,250	13.8%	2,164	85
Small Value	986		·	
Small Growth	599	4.5%	1,996	
Small Core	400	9.1%	2,164	387
Small Core Value	310	6.0%	2,086	33
Small Core Growth	212	3.1%		
Micro	850	4.7%	635	85
Micro Value	676	3.3%	597	7
Micro Growth	387	1.4%	635	7
Prime	1,000	97.5%	113,160	211
Prime Value	765	49.2%	98,818	20
Prime Growth	524	48.2%	95,595	12

Note: Based on constituent stocks as of regular reconstitutions in Nov 2020. Market cap data as of 19 Nov 2020. 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.

# 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

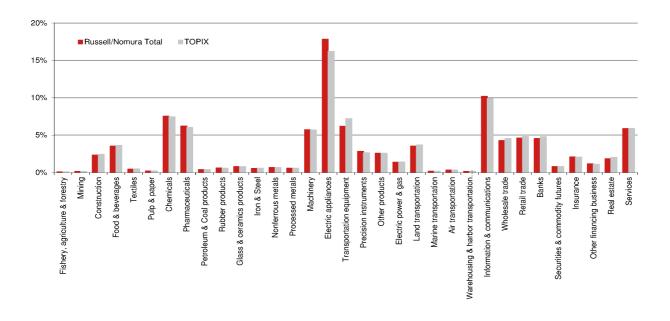
Date	Total		Large	Small	Prime	
(yyyymm)		Value	Growth	_		
198101	1,091	656	713	400	691	_
198201	1,091	708	642	400	691	_
198301	1,091	766	592	400	691	_
198401	1,091	738	630	400	691	_
198501	1,104	706	672	400	704	_
198601	1,142	733	762	400	742	_
198701	1,142	833	672	400	742	_
198801	1,199	860	765	400	799	_
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
201911	1,600	1,141	812	350	1,250	1,000
202011	1,600	1,228	813	350	1,250	1,000
		· · · · · · · · · · · · · · · · · · ·	-		,	,

Note: As of regular reconstitution date each year.

#### 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 the information & communications sector and less heavily weighted toward the transportation equipment sector.

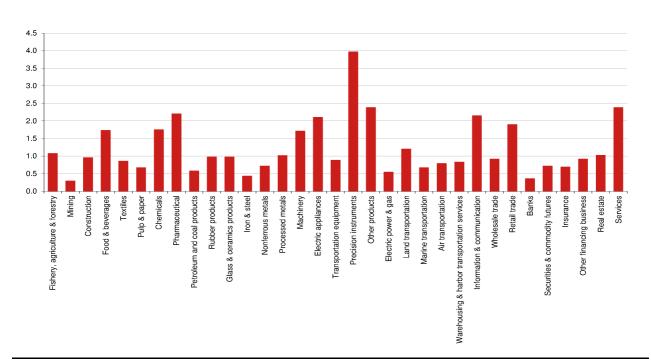
Fig. 5: Sector allocation of Russell/Nomura Total Market Index and TOPIX



Note: Figures for Russell/Nomura Total Market Index are based on constituent stocks as of the regular reconstitution date in Nov 2020. Market cap data as of 19 Nov 2020.

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 2020. Market cap data as of 15 Oct 2020, 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)].

# 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	Тор	Top Value	Top Growth
1	9984 SoftBank Group	7203 Toyota Motor	9984 SoftBank Group
2	6758 Sony	9432 Nippon Telegraph and Telephone	6861 Keyence
		8306 Mitsubishi UFJ Financial Group	6758 Sony
3			
4	6861 Keyence	4502 Takeda Pharmaceutical	7974 Nintendo
5	7974 Nintendo	8316 Sumitomo Mitsui Financial Group	6098 Recruit Holdings
6	9432 Nippon Telegraph and Telephone	7267 Honda Motor	4568 Daiichi Sankyo
7	6098 Recruit Holdings	9433 KDDI	8035 Tokyo Electron
8	4063 Shin-Etsu Chemical	6501 Hitachi	7741 Hoya
9	4568 Daiichi Sankyo	8411 Mizuho Financial Group	6367 Daikin Industries
10	8306 Mitsubishi UFJ Financial Group	8766 Tokio Marine Holdings	6594 Nidec
	Mid	Mid Value	Mid Growth
1	9843 Nitori Holdings	8604 Nomura Holdings	9843 Nitori Holdings
2	7269 Suzuki Motor	1925 Daiwa House Industry	7832 Bandai Namco Holdings
3	6762 TDK	8053 Sumitomo	7309 Shimano
4	8604 Nomura Holdings	8725 MS&AD Insurance Group Holdings	6645 Omron
-			
5	6701 NEC	8630 Sompo Holdings	9983 Fast Retailing
6	7832 Bandai Namco Holdings	7269 Suzuki Motor	8697 Japan Exchange Group
7	2503 Kirin Holdings	5020 ENEOS Holdings	4612 Nippon Paint Holdings
8	1925 Daiwa House Industry	7270 Subaru	6869 Sysmex
9	7309 Shimano	6178 Japan Post Holdings	3659 Nexon
10	6645 Omron	3407 Asahi Kasei	2503 Kirin Holdings
	Small Core	Small Core Value	Small Core Growth
1	9364 Kamigumi	9364 Kamigumi	2412 Benefit One
2	9783 Benesse Holdings	3099 Isetan Mitsukoshi Holdings	2492 Infomart
3	2412 Benefit One	8593 Mitsubishi UFJ Lease & Finance	4666 Park24
4	3099 Isetan Mitsukoshi Holdings	4631 DIC	8174 Nippon Gas
5	8593 Mitsubishi UFJ Lease & Finance	7012 Kawasaki Heavy Industries	7947 FP
6	6592 Mabuchi Motor	4208 Ube Industries	9706 Japan Airport Terminal
-		8253 Credit Saison	3697 SHIFT
7	9706 Japan Airport Terminal		
8	4631 DIC	7167 Mebuki Financial Group	7730 Mani
9	2432 DeNA	9404 Nippon Television Holdings	4552 JCR Pharmaceuticals
10	7012 Kawasaki Heavy Industries	7013 IHI	2782   Seria
	Micro	Micro Value	Micro Growth
1	6541 Grace Technology	4212 Sekisui Jushi	6541 Grace Technology
2	9058 Trancom	7220 Musashi Seimitsu Industry	1407 West Holdings
3	4212 Sekisui Jushi	6960 Fukuda Denshi	3387 Create Restaurants Holdings
4	1407 West Holdings	9037 Hamakyorex	4592 SanBio
5	3387 Create Restaurants Holdings	8098 Inabata &	4722 Future
6	4592 SanBio	7981 Takara Standard	4423 Arteria Networks
7	7220 Musashi Seimitsu Industry	2590 DyDo Drinco	4475 Hennge
8	9716 Nomura	8544 Keiyo Bank	3694 OPTiM
-			
9 10	7545 Nishimatsuya Chain 8818 Keihanshin Building	8367 Nanto Bank 6508 Meidensha	6323 Rorze 8200 Ringer Hut
-10	· · ·	. <u>'                                   </u>	
	Prime	Prime Value	Prime Growth
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10	1 0000 printed biotin of 0 1 manoral Group	1 57 55 1 15 No Marine Holdings	1 000 1   1 11000

Note: As of 15 Oct 2020, the date of determination for the regular reconstitution.

# 4. Performance analysis

### 4.1. Annual returns

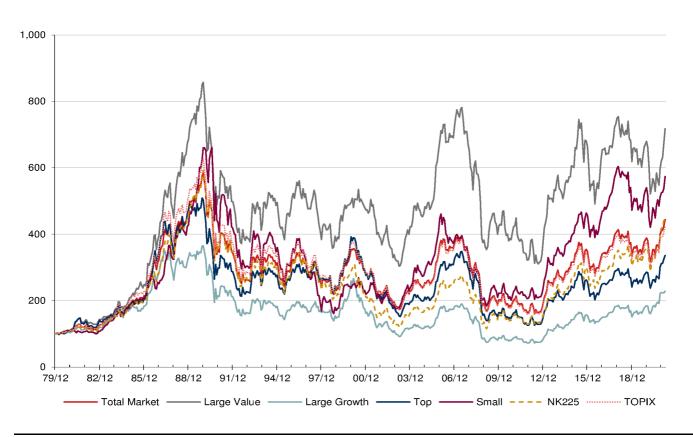
Fig. 8: Annual returns on individual indexes

	Excluding di	vidends				Including dividends				
Index	1 yr	2 yrs	5 yrs	10 yrs	Jan 2001–	1 yr	2 yrs	5 yrs	10 yrs	Jan 2001–
Total Market	35.41%	12.24%	8.83%	9.62%	3.86%	37.49%	14.57%	11.07%	11.80%	5.65%
Value	33.00%	6.98%	6.88%	8.07%	4.44%	35.78%	10.02%	9.68%	10.64%	6.48%
Growth	36.79%	16.93%	10.81%	11.19%	3.28%	38.17%	18.56%	12.52%	12.99%	4.83%
Large	35.94%	12.88%	9.01%	9.48%	3.48%	38.02%	15.21%	11.29%	11.69%	5.29%
Large Value	33.90%	7.07%	6.89%	7.75%	3.84%	36.79%	10.21%	9.79%	10.39%	5.90%
Large Growth	36.93%	17.74%	11.04%	11.11%		38.28%	19.35%	12.75%	12.93%	4.83%
Тор	36.11%	14.60%	9.66%	9.30%	2.67%	38.37%	17.13%	12.13%	11.73%	4.60%
Top Value	34.66%	9.73%	7.73%	7.87%	3.00%	37.80%	13.08%	10.87%	10.78%	5.20%
Top Growth	37.47%					38.97%	20.96%	13.61%		
Mid	35.94%	10.38%	8.20%	9.82%	4.78%	37.76%	12.44%	10.17%	11.72%	6.40%
Mid Value	32.92%	3.04%	5.69%	7.53%	4.84%	35.38%	5.84%	8.22%	9.81%	6.72%
Mid Growth	36.10%	15.58%	10.14%	11.69%	4.22%	37.28%	16.97%	11.61%	13.25%	5.57%
Mid-Small	34.88%	9.84%	8.07%	10.00%	5.19%	36.71%	11.94%	10.06%	11.92%	6.84%
Mid-Small Value	31.54%	4.37%	6.14%	8.23%	5.62%	33.98%	7.12%	8.61%	10.49%	7.51%
Mid-Small Growth	36.03%	14.41%	9.90%	11.77%	4.08%	37.22%	15.81%	11.37%	13.32%	5.42%
Small	32.51%	8.69%	7.87%	10.54%	6.23%	34.45%	10.88%	9.92%	12.54%	7.95%
Small Value	29.13%	6.78%	6.93%	9.44%	6.99%	31.47%	9.42%	9.31%	11.69%	8.90%
Small Growth	36.07%	10.84%	9.03%	12.28%	3.97%	37.28%	12.27%	10.55%	13.85%	5.32%
Small Core	33.48%	8.74%	7.67%	10.48%	5.88%	35.34%	10.92%	9.71%	12.45%	7.57%
Small Core Value	32.19%	7.24%	6.93%	9.28%	6.68%	34.46%	9.88%	9.29%	11.48%	8.55%
Small Core Growth	32.98%	9.77%	8.42%	12.20%	3.81%	34.18%	11.24%	9.98%	13.82%	5.19%
Micro	30.73%	8.76%	8.38%	10.77%	6.89%	32.71%	10.90%	10.40%	12.78%	8.66%
Micro Value	23.74%	6.24%	7.08%	9.82%	7.54%	26.18%	8.86%	9.48%	12.12%	9.52%
Micro Growth	42.96%	13.22%	10.53%	12.56%	4.38%	44.15%	14.55%	11.90%	14.00%	5.66%
Prime	35.56%	12.34%	8.85%	9.61%	3.81%	37.63%	14.68%	11.10%	11.79%	5.60%
Prime Value	33.39%	7.01%	6.87%	8.04%	4.35%	36.18%	10.06%	9.70%	10.62%	6.40%
Prime Growth	36.67%	17.05%	10.84%	11.17%	3.29%	38.03%	18.66%	12.54%	12.97%	4.84%
TOPIX	34.65%	11.75%	8.62%	9.50%	3.60%	36.75%	14.10%	10.88%	11.70%	5.40%

Note: As of end-Mar 2021. Returns are annualized and based on average monthly yen-based returns for each period.

#### 4.2. Performance

Fig. 9: Index performance



Note: Shows monthly index values (yen basis, excluding dividends) in Dec 1979–Mar 2021, rebased so that end-Dec 1979 = 100. Source: Nomura

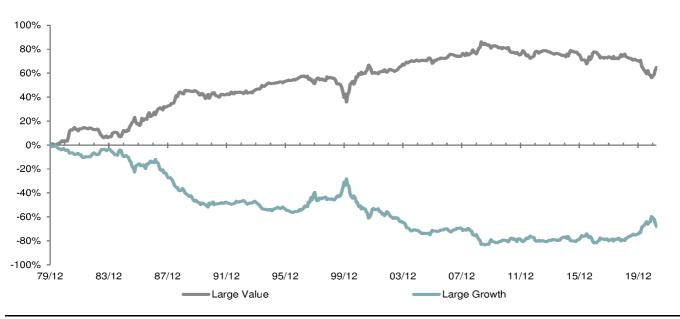
Fig. 10: Average returns, standard deviation, and correlation coefficients

	Average return	Standard deviation	Russell/Nomura	TOPIX	Nikkei 225
Russell/Nomura	5.23%	17.91%	1		
TOPIX	5.19%	18.24%	0.9950	1	
Nikkei 225	5.55%	19.54%	0.9619	0.9608	1

Note: Russell/Nomura is Russell/Nomura Total Market Index. Based on monthly returns (yen basis, excluding dividends) in Jan 1980–Mar 2021. Average return and standard deviation data are annualized.

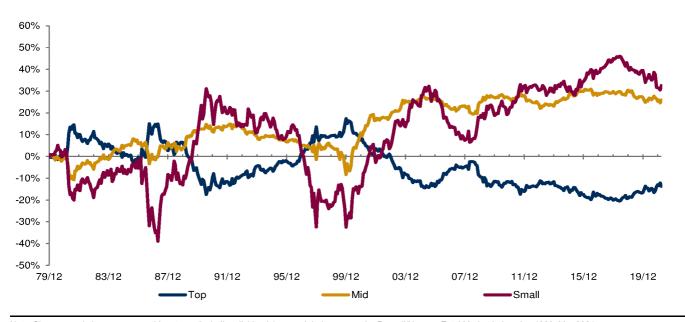
### 4.3. Relative performance of style indexes

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 2021. Source: Nomura

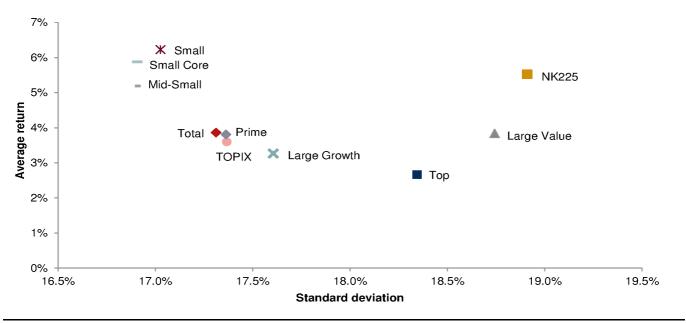
Fig. 12: Cumulative excess returns on size-based indexes



Note: Shows cumulative excess monthly returns (including dividends) on each index versus the Russell/Nomura Total Market Index, Jan 1980–Mar 2021. Source: Nomura

#### 4.4. Risk-return characteristics of individual indexes

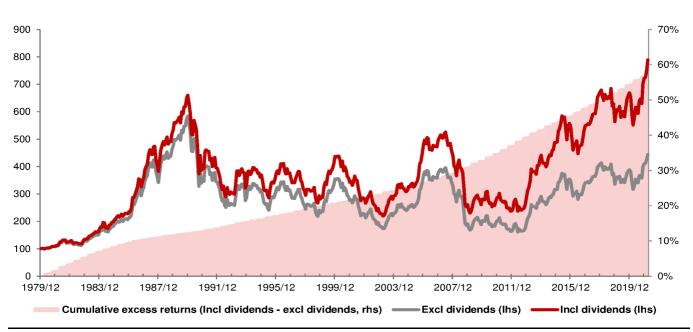
Fig. 13: Average return and standard deviation of individual indexes



Note: Shows average returns and standard deviation on annualized basis, calculated from monthly returns (excluding dividends) in Jan 2001–Mar 2021. 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 2021, 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	Total			Large	Small	Prime
(yyyymm)		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%
201911	2.0%	11.8%	10.8%	2.7%	9.1%	2.0%
202011	2.1%	16.8%	16.9%	3.1%	12.4%	2.2%
Average	2.4%	16.3%	16.9%	3.8%	16.8%	2.1%

Note: Turnover ratio is [ $\Sigma$  | market cap weighting before reconstitution - 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%.

# 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	Turnover ratio	Index market	Number of	stocks			
index	Maximum (days)	(one-way)	cap (¥trn)	Before	After	Change	OUT	IN
Total Market	1	2.1%	429	1,581	1,600	19	102	121
Value	2	16.8%	219	1,125	1,228	103	81	184
Growth	1	16.9%	211	801			137	149
Large	1	3.1%	370	345	350		25	30
Large Value	1	18.6%	179	215	242		24	51
Large Growth	1	17.2%	191	221			38	31
Top	1		215	70	60		15	5
Top Value	1	19.8%	97	45		: =	12	5
Top Growth	1	22.9%	118	50	39		17	6
Mid	1	16.5%	155				29	44
Mid Value	1	32.7%	81	170	204		24	58
Mid Growth	1	23.2%	74	171			31	35
Mid-Small	2		214				106	135
Mid-Small Value	3		121	1,080			81	191
Mid-Small Growth	1	21.4%	93	751			130	153
Small	6		59		1,250		128	142
Small Value	8		40	910	986		87	163
Small Growth	3		19	580			127	146
Small Core	10		39		400	=	81	86
Small Core Value	12		26	283			54	81
Small Core Growth	5		13	200	212		63	75
Micro	18		20	841	-		154	163
Micro Value	23		14	627	676		97	146
Micro Growth	12		6	380	387		123	130
Prime	1		418	988	1,000		49	61
Prime Value	1 1	17.1%	211	698	:		49	116
Prime Growth	1	17.0%	207	520	524	4	82	86

Note: Based on constituent stocks as of regular reconstitution in Nov 2020. Market cap data as of 19 Nov 2020. 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 ( | market cap before reconstitution - market cap after reconstitution | / average daily trading value)]. Average daily trading value is the average over the year to 15 Oct 2020, the date of determination for the regular reconstitution of the Russell/Nomura indexes. Turnover ratio is [ $\Sigma$  | market cap weighting before reconstitution - market cap weighting after reconstitution | / 2].

# 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.

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<sup>th</sup> 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	1	228	429	1,600
Value	2	1,646		1,228
Growth	2	581	211	813
Large	1	15	370	350
Large Value	1	38	179	242
Large Growth	1	39	191	214
Тор	1	2	215	60
Top Value	1 1	2	97	38
Top Growth	1 [	2	118	39
Mid	1 [	6	155	290
Mid Value	1 1	17	81	204
Mid Growth		15	74	175
Mid-Small	2	114		1,540
Mid-Small Value	4 3	913	121	1,190
Mid-Small Growth	<sub> </sub> 3	256	93	774
Small	7	31	59	1,250
Small Value	11	301	40	986
Small Growth	12	53	19	599
Small Core	10	20	39	400
Small Core Value	12	14	26	310
Small Core Growth	5	9	13	212
Micro	21	11	20	850
Micro Value	29	107	14	676
Micro Growth	39	17	6	387
Prime	1	210		1,000
Prime Value	1	242	211	765
Prime Growth	1	137	207	524

Note: Based on constituent stocks as of regular reconstitution in Nov 2020. Market cap data as of 19 Nov 2020. 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 2020, the date of determination for the regular reconstitution of the Russell/Nomura indexes. Source: Nomura

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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.nomuraholdings.com/en/frcnri/index.html)

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

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QUICK (130)

#### More detailed data

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For information, contact:

Nomura Research Institute

Investment Information Systems Business Department

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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# **Appendix A-1**

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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 JI17 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 5.5% (tax included) 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 5.5% (tax included/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.

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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

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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.

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