Russell/Nomura Ibbotson Value Premium Index rulebook

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The Russell/Nomura Ibbotson Value Premium Index was developed in an attempt to replicate the value premium via a market-neutral strategy combining long positions in the Russell/Nomura Large Value Index (including dividends) with short positions in the Russell/Nomura Large Growth Index (including dividends). The index is calculated on the basis of quantified rules. It was devised taking investability into account in order to facilitate the creation of products that track this index.

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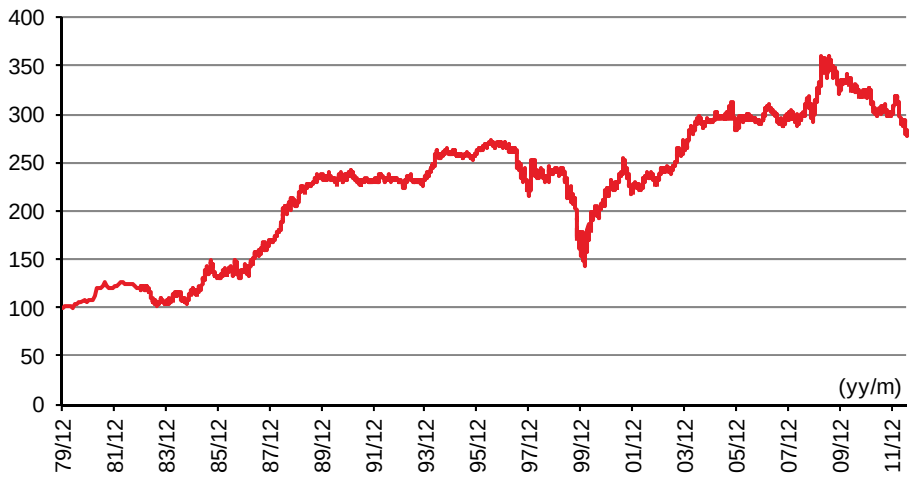
Fig. 1: Russell/Nomura Ibbotson Value Premium Index



Note: Sample period is end-December 1979 through end-July 2012.
Source: Nomura

Japanese version published on October 1, 2012

See Appendix A-1 for analyst certification, important disclosures and the status of non-US analysts.

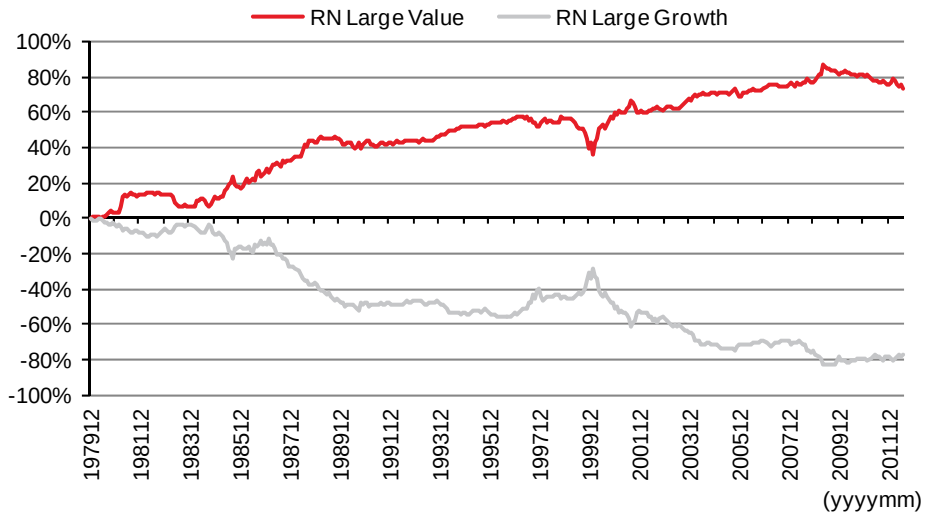
1. Introduction

1.1 A market-neutral strategy that aims to capture the value premium

Value investment—investment that focuses on undervalued stocks—has been around for a long time, and there are many indices that focus on the performance of this kind of investment. One such index is the Russell/Nomura Value Index. Figure 2 shows the cumulative excess return on the Russell/Nomura Large Value Index (including dividends) and the Russell/Nomura Large Growth Index (including dividends) versus the Russell/Nomura Total Market Index (including dividends). Historically, the Russell/Nomura Large Value Index has outperformed the market while the Russell/Nomura Large Growth Index has underperformed it.

Fig. 2: Cumulative excess returns on value and growth indices

Historically, the R/N Large Value Index has outperformed the R/N Large Growth Index



Note: Shows cumulative excess return on each index versus the Russell/Nomura Total Market Index from 1980 through July 2012. Includes dividends.

Source: Nomura

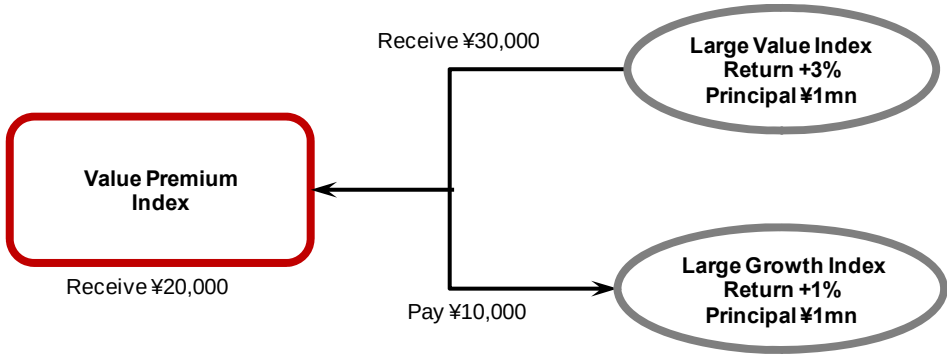
The Russell/Nomura Ibbotson Value Premium Index was developed in order to capture the value premium by focusing on the return spread between the two indices, via a market-neutral strategy combining long positions in a value index with short positions in a growth index. The rules for the index were devised taking investability into account in order to facilitate investments linked to this index. The index was conceived for use as a benchmark. The Russell/Nomura Large Value Index (including dividends) is used as the value index and the Russell/Nomura Large Growth Index (including dividends) as the growth index.

2. Index overview

2.1 Market-neutral strategy aimed at capturing the value premium

The aim of this index is to replicate the performance of an investment strategy that goes long on a value index and short on a growth index. Let us consider a hypothetical case in which an investor takes out a ¥1mn long position on the Russell/Nomura Large Value Index and a ¥1mn short position on the Russell/Nomura Large Growth Index. If the Large Value index produces a return of +3% and the Large Growth index produces a return of +1%, the investor will receive ¥30,000 on the long position and pay ¥10,000 on the short position. The net return of 2% (based on the net amount of ¥20,000) is the return on the Value Premium Index, as Figure 3 shows. The Russell/Nomura Ibbotson Value Premium Index aims to replicate this strategy.

Fig. 3: Basic concept of Russell/Nomura Ibbotson Value Premium Index



Source: Nomura

2.2 Index replicates a realizable investment strategy

Investors face a number of practical problems when attempting to implement a market-neutral strategy. This index has therefore been designed taking these practical problems into account.

The first practical problem is related to the liquidity of individual stocks. Small caps are less liquid than large caps, so it is often difficult to take out short positions in these stocks. The Russell/Nomura Ibbotson Value Premium Index therefore combines long positions in the Russell/Nomura Large Value Index with short positions in the Russell/Nomura Large Growth Index, so that it comprises only large caps, which are more liquid than small caps.

The next problem is related to the size of funds required. Substantial funds are required to build up an equity portfolio comprising long and short positions. The Russell/Nomura Ibbotson Value Premium Index was therefore designed on the assumption that index swaps would be used to invest in the indices linked to the index, to enable this strategy to be implemented with a relatively small amount of funds. The calculation of the Russell/Nomura Ibbotson Value Premium Index therefore includes subtraction of the costs of taking out index swaps, thus facilitating investment in the indices linked to this index.

The third problem involves the management of positions. A market-neutral strategy is a strategy that combines long and short positions of equal value. However, if these positions are not managed conscientiously enough a difference can arise between the value of the two positions. This means that the strategy is no longer market-neutral and that the investor is, unintentionally, exposed to Japanese equity market risk. The Russell/Nomura Ibbotson Value Premium Index is therefore rebalanced regularly in order to reduce differences between the values of the long and short positions. If the difference

between the value of the long and short positions exceeds a certain level, the index is reconfigured once every quarter so that the values are equal once again.

2.3 Index start date

The start date for the Russell/Nomura Ibbotson Value Premium Index is end-December 1979, and index values from this date onwards will be published on 1 October. (Index value at end-December 1979 = 100.)

2.4 Conclusion

The Russell/Nomura Ibbotson Value Premium Index has the following characteristics.

(1) It replicates a market-neutral strategy comprising long positions in the Russell/Nomura Large Value Index and short positions in the Russell/Nomura Large Growth Index in order to capture the value premium.

(2) The index is calculated quantitatively in line with pre-determined rules, and it is possible to replicate movements in the index using only externally available data.

(3) If the difference between the values of the investments in the long and short positions exceeds a certain level, the index is reconfigured regularly to ensure that it does not lose the characteristics expected of it.

(4) Trading costs are taken into account in the index in order to facilitate replication using derivatives.

3. Index calculation methodology

3.1 Definition of terms

The terms used to calculate the index are defined as follows.

t: index calculation date (t must be TSE trading day). t on index start date (end-December 1979) = 0. End of period t is defined as time t.

IDX_t: Value Premium Index at time t. Index value on index start date IDX_0 = 100.

$e_{v,t}$, $e_{g,t}$: exposure to Russell/Nomura Large Value Index and Russell/Nomura Large Growth Index, respectively, at time t

$r_{v,t}$, $r_{g,t}$: daily return (including dividends) on Russell/Nomura Large Value Index and Russell/Nomura Large Growth Index, respectively, in period t

$c_{v,t}$, $c_{g,t}$: costs of trading in Russell/Nomura Large Value Index and Russell/Nomura Large Growth Index, respectively, in period t

$d_{t,t-1}$: no. of days between time t and time t – 1.

3.2 Index calculation method

The Russell/Nomura Ibbotson Value Premium Index at time t is calculated as follows. Index value on index start date IDX_0 = 100.

$$IDX_t = IDX_{t-1}\left(1 + \frac{IDX_0}{IDX_{t-1}} e_{v,t-1} r_{v,t} - \frac{IDX_0}{IDX_{t-1}} e_{g,t-1} r_{g,t} - \frac{IDX_0}{IDX_{t-1}}\left(c_{v,t} + c_{g,t}\right)\right)$$

$c_{v,t}$, and $c_{g,t}$ represent the cost of using index swaps, which we define as follows.

$$c_{v,t} = \frac{d_{t,t-1}}{365} \cdot \frac{1.15\%}{2} e_{v,t-1} \qquad c_{g,t} = \frac{d_{t,t-1}}{365} \cdot \frac{0.75\%}{2} e_{g,t-1}$$

The index is reconfigured at specified times, and the values of $e_{v,t}$ and $e_{g,t}$ are reset. e is a variable representing the volume of positions in the growth index and value index, and is defined as follows, for the reconfiguration date and for other dates. On the index start date $e_{v,0} = e_{g,0} = 1$.

$$e_{v,t-1} = \begin{cases} e_{v,t-2}(1 + r_{v,t-1}) - c_{v,t-1} & t \notin \{\text{reconfiguration date}\} \\ IDX_{t-1} / IDX_0 & t \in \{\text{reconfiguration date}\} \end{cases} \quad e_{g,t-1} = \begin{cases} e_{g,t-2}(1 + r_{g,t-1}) - c_{g,t-1} & t \notin \{\text{reconfiguration date}\} \\ IDX_{t-1} / IDX_0 & t \in \{\text{reconfiguration date}\} \end{cases}$$

3.3 Rebalancing method

The index is only rebalanced on certain dates and if a certain condition is met. These dates are the first trading days in March, June and September (t), and the following condition also has to be met.

$$|res_{t-2}| > 30\%$$

res is the difference between the size of the positions in the value index and the positions in the growth index, as defined below.

$$res_t = \frac{IDX_0}{IDX_t}\left(e_{v,t} - e_{g,t}\right)$$

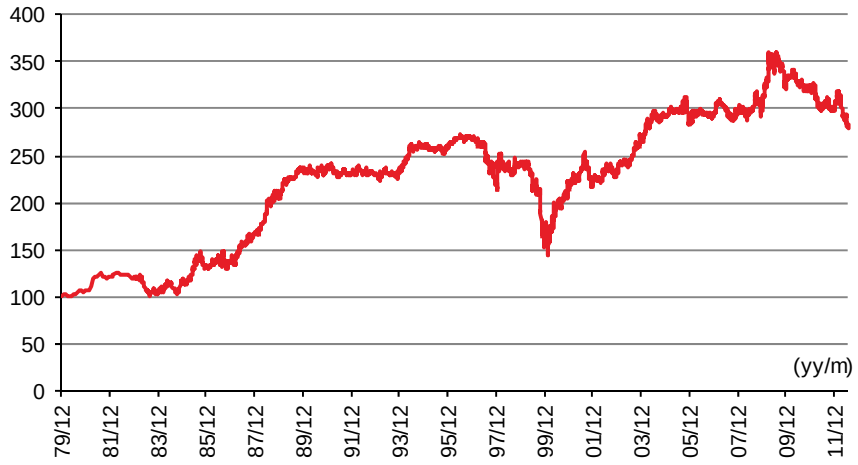
The Russell/Nomura Ibbotson Value Premium Index is also rebalanced on the Russell/Nomura Japan Index's annual rebalancing date (currently the first trading day in December) regardless of the value of res.

4. Index characteristics

4.1 Historical performance and comparison with other Japanese assets

The figures below show the historical performance of the Russell/Nomura Ibbotson Value Premium Index and its performance compared to that of other Japanese assets.

Fig. 4: Russell/Nomura Ibbotson Value Premium Index



Note: Sample period is end-December 1979 through end-July 2012.

Source: Nomura

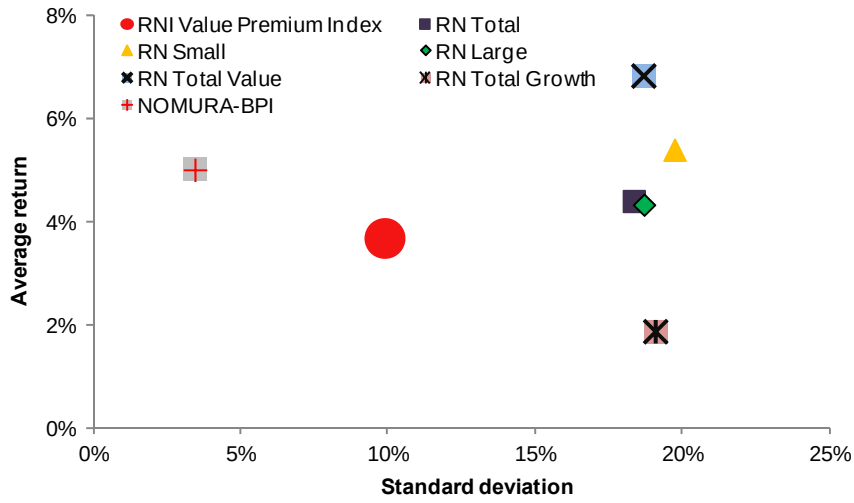
Fig. 5: Historical performance of Russell/Nomura Ibbotson Value Premium Index

Average return (μ)	Standard deviation (σ)	μ/σ
3.69%	9.88%	0.37

Note: Sample period is end-December 1979 through end-July 2012. Data are based on monthly returns and annualized.

Source: Nomura

Fig. 6: Comparison with other Japanese market indices



Note: Sample period is end-December 1979 through end-July 2012. All indices include dividends. Data are based on monthly returns and annualized.

Source: Nomura

Fig. 7: Correlation with other Japanese market indices

RN Total	0.046
RN Small	0.116
RN Large	0.040
RN Total Value	0.285
RN Total Growth	-0.183
NOMURA-BPI	-0.023

Note: Sample period is end-December 1979 through end-July 2012. All indices include dividends. Data are based on monthly returns.

Source: Nomura

5. Data publication services

5.1 Historical performance

Data for the Russell/Nomura Ibbotson Value Premium Index will be published in the Securities Market Benchmarks section of the Nomura website starting on 1 October.

Nomura Securities Global Research Division / Fixed Income Research

Russell/Nomura Ibbotson Value Premium Index

http://qr.nomura.co.jp/en/rni_vp/index.html

The data will also be published on Bloomberg, Reuters, and QUICK.

Appendix A-1

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management fees (trust fees), specific to each investment trust). In addition, all products carry the risk of losses owing to price fluctuations or other factors. Fees and risks vary by product. Please thoroughly read the written materials provided, such as documents delivered before making a contract, listed securities documents, or prospectuses.
Transactions involving Japanese equities (including Japanese REITs, Japanese ETFs, and Japanese ETNs) are subject to a sales commission of up to 1.365% (tax included) of the transaction amount (or a commission of ¥2,730 (tax included) for transactions of ¥200,000 or less). When Japanese equities 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. Japanese equities carry the risk of losses owing to price fluctuations. Japanese REITs carry the risk of losses owing to fluctuations in price and/or earnings of underlying real estate. Japanese ETFs carry the risk of losses owing to fluctuations in the underlying indexes or other benchmarks.

Transactions involving foreign equities are subject to a domestic sales commission of up to 0.9975% (tax included) of the transaction amount (which equals the local transaction amount plus local fees and taxes in the case of a purchase or the local transaction amount minus local fees and taxes in the case of a sale) (for transaction amounts of ¥750,000 and below, maximum domestic sales commission is ¥7,455 tax included). Local fees and taxes in foreign financial instruments markets vary by country/territory. When foreign equities 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. Foreign equities carry the risk of losses owing to factors such as price fluctuations and foreign exchange rate fluctuations.

Margin transactions are subject to a sales commission of up to 1.365% (tax included) of the transaction amount (or a commission of ¥2,730 (tax included) for transactions of ¥200,000 or less), as well as management fees and rights handling fees. In addition, long margin transactions are subject to interest on the purchase amount, while short margin transactions are subject to fees for the lending of the shares borrowed. A margin equal to at least 30% of the transaction amount and at least ¥300,000 is required. With margin transactions, an amount up to roughly 3.3x the margin may be traded. Margin transactions therefore carry the risk of losses in excess of the margin owing to share price fluctuations. For details, please thoroughly read the written materials provided, such as listed securities documents or documents delivered before making a contract.

Transactions involving convertible bonds are subject to a sales commission of up to 1.05% (tax included) of the transaction amount (or a commission of ¥4,200 (tax included) if this would be less than ¥4,200). 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 0.8 will be used through 9 January 2013, and an amount equal to the two preceding coupon payments (before tax) x 0.79685 will be used starting on 10 January 2013, (2) for 5-year and 3-year fixed rate bonds, an amount equal to the two preceding coupon payments (before tax) x 0.8 will be used through 9 January 2013, and an amount equal to the two preceding coupon payments (before tax) x 0.79685 will be used starting on 10 January 2013.

Purchases of investment trusts (and sales of some investment trusts) are subject to a purchase or sales fee of up to 5.25% (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 5.25% (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.

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.

An annual account maintenance fee of up to ¥1,575 (tax included) is charged for any account held with Nomura Securities containing equities or investment securities. An additional annual account maintenance fee of up to ¥3,150 (tax included) is charged for any account containing foreign securities. No account fee will be charged for other 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 ¥10,500 (tax included) per issue transferred depending on volume.
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