



*GPR/HVB Asia Top 20  
REIT Index*

*Construction  
& Maintenance Procedures*

January 2024

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## General Information

This document (the “Guideline”) is to be used as a guideline with regard to the composition, calculation and maintenance of the GPR/HVB Asia Top 20 REIT Index (the “Index”). Any amendments to the rules made to the Guideline are made in accordance with the provision specified in the Guideline. The Index is owned, calculated and published by Global Property Research B.V. (“GPR”). As of 1<sup>st</sup> January 2024, GPR has engaged Solactive AG (“Solactive”) as the administrator (the “Index Administrator”) under the Regulation (EU) 2016/1011 (the “Benchmark Regulation” or “BMR”). The name “Solactive” is trademarked. From 10<sup>th</sup> January 2019 until 31<sup>st</sup> December 2023, the Index was administered by GPR.

The Guideline and the rules referenced herein contain the underlying principles and rules regarding the structure and operation of the Index. GPR and Solactive do not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the Index nor the level of the Index at any certain point in time nor in any other respect. GPR strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for GPR or Solactive – irrespective of possible obligations to issuers – to advise third parties, including investors and/or financial intermediaries, of any errors in the Index. The publication of the Index by GPR does not constitute a recommendation for capital investment and does not contain any assurance or opinion of GPR or Solactive regarding a possible investment in a financial instrument based on this Index.

## 1 GLOSSARY

<i>Adjustment factor</i>	A multiplier to correct for changes in the intrinsic value of the stock not having return implications
<i>Base</i>	Initial value of the index
<i>Compiler</i>	Party responsible for the calculation and publication of the indices
<i>De-merger</i>	Situation in which a company splits up in two or more entities, which may be floated
<i>Development activities</i>	Property holdings under construction
<i>Directors' holdings</i>	Shares held by the management and board of Directors of the company
<i>Ex-dividend date</i>	First trading date at which the holder of the stock is no longer entitled to receive the subsequent dividend
<i>Free float</i>	The number of shares outstanding considered to be available for trading on the stock market
<i>Gross dividends</i>	Dividends before taxes
<i>Index Administrator</i>	As defined in general information
<i>Indicative values</i>	Values subject to change
<i>Investment activities</i>	Income generating property holdings, hereby excluding investments in infrastructure assets, telecom towers and billboards
<i>Market capitalization</i>	Number of shares outstanding times the share price
<i>Nominee account</i>	A joint share account held by a financial institution aggregating various separate share holdings
<i>Operational turnover</i>	Recurrent income from activities
<i>Primary stock listing</i>	Quotation of the stock with the highest number of shares traded measured over a period of one year. In case no trading history over the past year is available the compiler will assign a primary stock listing
<i>Spin-off</i>	Situation in which a company disposes part of its portfolio by creating a separate entity, which subsequently may be floated
<i>Suspension of trading</i>	A temporary deferral of regulated trading
<i>Trading volume</i>	Share turnover expressed as the number of shares traded times the price of the shares in US dollars

## 2 COMPOSITION OF THE GPR/HVB ASIA TOP 20 REIT INDEX

- 2.1 The GPR/HVB Asia Top 20 REIT is an equal weighted index and based on shares of companies included in the GPR General Index, and is composed in such a way that it is considered to be representative for the movements in the Asian property share market.
- 2.2 The GPR/HVB Asia Top 20 REIT Index includes the 20 stocks with the highest monthly trading volume, measured as the twelve month trading volume in euro over the previous twelve months. If a company has a track record of less than twelve months, the monthly trading volume is measured as the six month trading volume in euro over the previous six months.
- 2.3 Only stock exchange quoted companies without restrictions on foreign ownership are eligible for inclusion in the GPR/HVB Asia Top 20 REIT Index, and companies that are organized as a real estate investment trust.
- 2.4 Companies are eligible for inclusion if the 12-month historical rolling dividend yield exceeds 0.5 percent in each of the past three months. If a company is already a constituent of the GPR/HVB Asia Top 20 REIT (Performance-) Index, then it will only be excluded if its twelve month historical rolling dividend yield is below 0.5 percent in each of the past three months. If a company has a track record of less than twelve months, but it displays a dividend yield of more than 0.5 percent in each of the past three months, then it is eligible for inclusion. Special dividend payments by a company are not taken into account for the determination of their twelve month historical rolling dividend yield. If a company has a track record of less than 12 months, but it displays an estimated dividend yield of more than 0.5% for a 12 month period then it is eligible for inclusion.
- 2.5 Companies are eligible for inclusion if they have a primary listing in Hong Kong, Singapore or Japan.
- 2.6 If there are less than 20 companies that apply to articles 2.4 and 2.5, then this number of companies will be included in the GPR/HVB Asia Top 20 REIT (Performance-) Index.
- 2.7 Companies are eligible when the free float, calculated as the share price times the available amount of shares outstanding, is over 50 million US dollar for two consecutive months, the free float percentage is at least 15%, and when their annual trading volume exceeds EUR 25 million.
- 2.8 In deviation from the regular inclusion criteria, the free float market capitalization of newly listed property companies (IPOs) must rank among the top 150 companies in order to qualify for inclusion in the index. If this is the case then the newly listed companies (IPOs) will be included in the index at the closing price at the end of the first day of trading. Since monthly trading volume in case of newly listed property companies (IPOs) is unknown at the time of inclusion, this Rule replaces Rule 2.3.
- 2.9 Free float is reduced to reflect share holdings of more than 5% of the shares outstanding. Combinations of holdings under five percent never qualify, unless these smaller holdings belong to one fiscal entity. Directors' holdings never qualify as free float, even when these holdings fall below five percent. Nominee accounts are always considered to be part of free float market capitalization. In case both a parent and a daughter company are part of the index, the free float of the daughter company will be lowered to reflect the stake of the parent company in the daughter company. In case shareholders have a lock-up on their shares, then these holdings will not be part of free float, even when these holdings fall below five percent.
- 2.10 Companies are included for which at least 75% of operational turnover is derived from investment activities (property investment companies) or investment and development activities combined (hybrid property companies). In the latter case at least 25% of operational turnover needs to be derived from investment activities.

- 2.11 Operational turnover is determined using figures of the latest available financial statements of the property company. If operational turnover cannot be derived from these financial statements, property assets will serve as the criterion to determine inclusion.
- 2.12 The GPR/HVB Asia Top 20 REIT Index includes office, residential, retail, industrial, diversified, hotel and healthcare property companies. Whenever a company derives at least 60% of operational turnover from one specific property type, the compiler considers this company to be specialized in this property sector. For companies in the hotel and healthcare sector, it must be certain they are an investor and not an operator. The financial information needs to be clear on how the income is derived, from which activities. In case of doubt, the company will not be included.
- 2.13 The stocks included in the GPR/HVB Asia Top 20 REIT Index are assigned an equal weighting at the rebalancing date. Thereafter, company weights fluctuate to reflect changes in prices, and number of shares.
- 2.14 Country weights are the sum of weighting factors of individual constituents in every country.
- 2.15 If a company derives over 75% of the operational turnover from one country, not being the country of its primary stock listing thereby not crossing continental borders, the company is placed in the index of the country in which the assets are located.
- 2.16 In case of exclusion of a company from the index, the compiler will not assign another company for inclusion.
- 2.17 Companies are included if the publication of audited annual reports and press releases on their website are all available in English. An annual report is defined as a current set of accounts consisting of a profit and loss statement, a balance sheet, a directors' review and full notes to the accounts.

### 3 CALCULATION OF THE GPR/HVB ASIA TOP 20 REIT INDEX

- 3.1 The value of the GPR/HVB Asia Top 20 REIT Index is based on total return calculations. The components of total return are price return and dividend return.
- 3.2 The base date of the GPR/HVB Asia Top 20 REIT Index is September 29, 2006 and the base value is 100.
- 3.3 Share prices are closing prices established during normal, regulated trading on the stock exchange of primary listing.
- 3.4 Share prices used are most recent closing trade prices.
- 3.5 Changes in free float will be implemented once a month, after close of trading on the third Friday of each month.
- 3.6 Free float changes will be reported at least two weeks before occurrence.
- 3.7 The GPR/HVB Asia Top 20 REIT Index reflects gross dividend payments.
- 3.8 Dividends are included in the index at the ex-dividend date.
- 3.9 Dividends paid out by a company are immediately reinvested at the first index calculation.
- 3.10 Foreign exchange rates are WM/Reuters London close rates. The service sets a daily standard for the foreign exchange rates required for index calculation, investment management and portfolio valuation. At short intervals before and after 16:00 hrs London time, representative bid and offer rates against the US dollar for some 112 currencies are selected from a wide range of contributing banks and foreign exchange dealers. Anomalous data are screened out, and a median rate selected for each currency. The choice of 16:00 London time as the reference point for the rates captures a large selection of timely quotes from Continental European contributors to the Reuters system and reflects the peak trading period for the London and New York foreign exchange markets. The rates include contributions on a global basis, making them relevant for valuation purposes in all the world's time zones. In the event that WM/Reuters Closing Spot Rates are not published by the WM Company, the previous day's rates will be used to calculate the GPR/HVB Asia Top 20 REIT Index.
- 3.11 If for any reason the stock price or a foreign exchange rate is not known or deemed to be unreliable the compiler will, after proper inquiries have been made with the relevant pricing source, calculate the index on the basis of the most recent price for that stock or foreign exchange rate which is known to him.
- 3.12 The index may not invest more than 20% of their assets in securities issued by the same entity, provided however that for one issuer (and one only) this limit may be raised to 35%. In consequence, a security may not represent more than 20% of the index, provided however that one security (and one only) may represent up to 35% of the index.
- 3.13 In case a company decides to cancel or postpone a Dividend after the ex-dividend date an adjustment will be made to the index calculations to take into account the cancellation or postponement.
- 3.14 Once an error occurs in the calculation of the GPR/HVB Asia Top 20 REIT Index resulting in a deviation greater than 0.01 basis points, the compiler will recalculate the impacted indices if (i) the error occurred in the last two business days and (ii) does not impact end-of-month index values.

#### 4 PUBLICATION OF THE GPR/HVB ASIA TOP 20 REIT INDEX

- 4.1 The current value of the GPR/HVB Asia Top 20 REIT Index will be published once a day.
- 4.2 Index values calculated will be published on the next trading day.
- 4.3 All index values will remain indicative index values until the fifth trading day of the month following publication of the index. Any changes in the indicative index values will be reported at that time.
- 4.4 After the fifth trading day, no changes to the index can occur.
- 4.5 The Index Administrator of the GPR/HVB Asia Top 20 REIT Index reserves the right to delay publication of values of the index or to suspend or cease publication, if in his opinion circumstances prevail which prevent the proper calculation of the index.



## 5 PERIODIC ADJUSTMENT OF THE GPR/HVB ASIA TOP 20 REIT INDEX

### *General Rules*

- 5.1 The aim of the compiler of the GPR/HVB Asia Top 20 REIT Index when making a periodic adjustment is to ensure that the weighting and selection of the component countries and stocks remains in accordance with the basic principles of the Index, as described in chapter 2.
- 5.2 Periodic adjustments to the selection and base weighting of stocks and countries in the GPR/HVB Asia Top 20 REIT Index will occur semi-annually on the 31<sup>st</sup> of March and the 30<sup>th</sup> of September, or the first trading date afterwards in case of non-week days or public holidays.
- 5.3 Changes in the selection and base weighting of countries or in the selection of stocks will be announced one month before occurrence of the adjustment. The compiler will publish a main list as well as a replacement list. The replacement list is ranked in order of first substitute and serves as a backup in case companies on the main list do not meet the inclusion criteria in the time frame between publication and adjustment. Any exclusion from the main listing will be reported immediately.
- 5.4 Periodic adjustment to the selection and base weighting of stocks and countries included in the GPR/HVB Asia Top 20 REIT Index may not change the historic value of the index.
- 5.5 The selection of stocks included in the GPR/HVB Asia Top 20 REIT Index shall be adjusted semi-annually on the basis of monthly trading volume on an absolute basis over the past year on the primary stock exchange. The stocks trading the largest monthly volume on the relevant exchange will be selected.
- 5.6 If there has not been a publication of monthly trading volume throughout the entire period, adjustments will be based on the longest possible period within that year.
- 5.7 If a stock has multiple listings only the primary listing will be considered.
- 5.8 The weighting of stocks included in the GPR/HVB Asia Top 20 REIT Index shall be adjusted semi-annually on an equal basis.
- 5.9 In cases, which are not explicitly defined in the rules for periodic adjustment, periodic adjustment will be carried out in spirit of the aims mentioned in article 2.1. All adjustments must meet the criteria mentioned in articles 2.2 to 2.4.

### *Company Structure Changes*

- 5.10 In case of a merger or acquisition in which all of the companies involved are in the GPR/HVB Asia Top 20 REIT Index, only one company will continue to be part of the GPR/HVB Asia Top 20 REIT Index. The weight of this company is dependent on the free float market capitalization of the surviving company. Free float will be adjusted to publications following the offer. The compiler will not assign another company for inclusion. The final return will reflect the offer price.
- 5.11 In case of a merger or acquisition in which one of the companies involved is in the GPR/HVB Asia Top 20 REIT Index and the other company does not meet the criteria as expressed in chapter 2, the company resulting from the activity will have to comply with these criteria in order for the company to remain included in the GPR/HVB Asia Top 20 REIT Index. If the resulting company fails to meet these criteria, the company will be excluded. The final return will reflect the offer price.
- 5.12 After the occurrence of a de-merger of a company included in the GPR/HVB Asia Top 20 REIT Index, both the original and/or the newly created entities will immediately become part of the index whenever the new entities meet the criteria of chapter 2. Since monthly trading

volume in case of de-merged companies is unknown at the time of inclusion this Rule replaces Rule 2.3.

- 5.13 After the occurrence of a spin-off of part of a company included in the GPR/HVB Asia Top 20 REIT Index, only the original company will remain part of the index. The spin-off will be treated as an initial public offering.
- 5.14 In case of a suspension of trading in a company, the price of the share will remain the price of the last trade in the companies' shares, reflecting a zero return. The weight of the company in the GPR/HVB Asia Top 20 REIT Index will remain unchanged. In case the suspension eventually leads to a bankruptcy, the loss of the investment will be taken on the filing date. Whenever the suspension continues for more than three consecutive months, the share price will be set at zero, assuming a total loss of the investment.

#### *Company Capital Changes*

- 5.15 The amount of shares outstanding will be changed to reflect seasoned offerings and share repurchases at the day of occurrence.
- 5.16 If a company goes bankrupt, the index will reflect the return by setting the price at zero, in order to reflect a total loss of the investment.
- 5.17 In case of a stock split, a stock dividend, a poison pill, a rights issue or a bonus issue the number of shares will be adjusted. Furthermore, an adjustment factor is implemented to ensure continuity of return calculations.
- 5.18 In case of a merger or acquisition, whereby the target company remains listed on the stock exchange with a free float percentage of at least 15%, this target company will continue to be part of the Index when the offer has been declared unconditional. This article will be superior to articles 5.10 and 5.11.
- 5.19 In the event of a rights issue, an adjustment factor is implemented to ensure continuity of return calculations. If the rights issue is fully underwritten, then the newly issued shares will be included in the index at the closing price at the end of the ex-right date. If the rights issue is not fully underwritten, then the newly issued shares will be included in the index at the closing price at the end of the first day of trading. In case of doubt, the rights issue will be perceived as not fully underwritten.

## 6 FINAL PROVISIONS FOR THE GPR/HVB ASIA TOP 20 REIT INDEX

- 6.1 GPR acts as the compiler of the GPR/HVB Asia Top 20 REIT Index.
- 6.2 The Index Administrator of the GPR/HVB Asia Top 20 REIT Index is responsible for the daily administration of the index. The Index Administrator and Index Administrator of the GPR/HVB Asia Top 20 REIT Index is also responsible for decisions regarding the interpretation of these rules.
- 6.3 In cases for which the rules make no provision, but which require immediate action, the Index Administrator of the GPR/HVB Asia Top 20 REIT Index shall decide to the best of his ability and within the spirit of and in accordance with the aim of the rules and instruct the compiler accordingly.
- 6.4 These rules may be amended, which may also lead to a change in the GPR/HVB Asia Top 20 REIT Index. There must be a period of at least three months between the date of publication of a proposed amendment and the date on which it comes into effect, unless the amendment does not conflict with any interest of the parties involved. No responsibility is accepted for damages arising from an amendment to the rules of the GPR/HVB Asia Top 20 REIT Index.
- 6.5 The compiler of the GPR/HVB Asia Top 20 REIT Index shall make every effort to safeguard the accuracy of the composition, publication and adjustment of the GPR/HVB Asia Top 20 REIT Index in accordance with the applicable rules. However, the Index Administrator and compiler of the Index accepts no responsibility whatsoever for any inaccuracy in the share prices, the calculation and publication of the index, the information used to make adjustments neither in the Index nor in the adjustments themselves.
- 6.6 There might be circumstances pursuant to which the Index Administrator can decide to terminate the GPR/HVB Asia Top 20 REIT Index. Before deciding to terminate the Index, the Index Administrator shall consult with the client(s) using the GPR/HVB Asia Top 20 REIT Index. If the Index Administrator, after the consultation, decides to terminate the GPR/HVB Asia Top 20 REIT Index the compiler shall give the client(s) using the GPR/HVB Asia Top 20 REIT Index at least two (2) years prior notice before the GPR/HVB Asia Top 20 REIT Index is terminated. Whenever possible, the compiler shall suggest alternative indices to the client(s) using the GPR/HVB Asia Top 20 REIT Index.
- 6.7 Any discretion which may need to be exercised by the compiler in relation to the determination of the Index (for example the determination of the composition or any other relevant decisions in relation to the Index) shall be made in accordance with strict rules regarding the exercise of discretion or expert judgement.
- 6.8 The methodology of the Index is subject to regular review, at least annually. In case a need of a change of the methodology has been identified within such review (e.g. if the underlying market or economic reality has changed since the launch of the Index, i.e. if the present methodology is based on obsolete assumptions and factors and no longer reflects the reality as accurately, reliably and appropriately as before), such change will be made in accordance with the rules prescribed in this document.
- 6.9 The application by the Index Administrator and the compiler of the method described in this document is final and binding. The Index Administrator and the compiler shall apply the method described above for the tasks assigned to them with regard to the composition, determination, calculation, maintenance and publication of the Index. However, it cannot be excluded that the market environment, supervisory, legal and financial or tax reasons may require changes to be made to this method. The Index Administrator may also make changes to the terms and conditions of the Index and the method applied to calculate the Index, and instruct the compiler accordingly, that it deems to be necessary and desirable in order to prevent obvious or demonstrable error or to remedy, correct or supplement incorrect terms and conditions. Neither the Index nor the compiler obliged to provide information on any such modifications or changes. Despite the modifications and changes, the Index

Administrator and the compiler will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.

- 6.10 An index committee composed of staff from the Index Administrator and its subsidiaries (the “Index Committee”) is responsible for decisions regarding any amendments to the rules of the Index.

# *Appendix*

## 7 VERSION HISTORY

*January 1, 2007*

- 2.5 Companies are eligible for inclusion when the free float, calculated as the share price times the available amount of shares outstanding, is over 50 million US dollar for two consecutive months, and when the free float percentage is at least 15%.
- from* Companies are eligible for inclusion when the free float, calculated as the share price times the available amount of shares outstanding, is over 50 million US dollar for two consecutive months.
- 5.18 In case of a merger or acquisition, whereby the target company remains listed on the stock exchange with a free float percentage of at least 15%, this target company will continue to be part of the Index when the offer has been declared unconditional. This article will be superior to articles 5.10 and 5.11.

*March 1, 2007*

- 2.7 Free float is reduced to reflect share holdings of more than 5% of the shares outstanding. Combinations of holdings under five percent never qualify, unless these smaller holdings belong to one fiscal entity. Directors' holdings never qualify as free float, even when these holdings fall below five percent. Nominee accounts are always considered to be part of free float market capitalization. In case both a parent and a daughter company are part of the index, the free float of the daughter company will be lowered to reflect the stake of the parent company in the daughter company. In case shareholders have a lock-up on their shares, then these holdings will not be part of free float, even when these holdings fall below five percent.
- from* Free float is reduced to reflect share holdings of more than 10% of the shares outstanding. Combinations of holdings under ten percent never qualify, unless these smaller holdings belong to one fiscal entity. Directors' holdings never qualify as free float, even when these holdings fall below ten percent. Nominee accounts are always considered to be part of available market capitalization. In case both a parent and a daughter company are part of the index, the free float of the daughter company will be lowered to reflect the stake of the parent company in the daughter company.

*March 1, 2008*

- 3.5 Changes in free float will be implemented once a month, after close of trading on the third Friday of each month.
- from* Changes in free float will be implemented once a month, on the first trading day of each month.

*March 1, 2009*

- 2.5 Companies are eligible if the free float, calculated as the share price times the available amount of shares outstanding, is over 50 million US dollar for two consecutive months, and when the free float percentage is at least 15%.
- from* Companies are eligible for inclusion if the free float, calculated as the share price times the available amount of shares outstanding, is over 50 million US dollar for two consecutive months, and when the free float percentage is at least 15%.

*October 1, 2009*

- 5.19 In the event of a rights issue, an adjustment factor is implemented to ensure continuity of return calculations. If the rights issue is fully underwritten, then the newly issued shares will be included in the index at the closing price at the end of the ex-right date. If the rights issue is not fully underwritten, then the newly issued shares will be included in the index at the closing price at the end of the first day of trading. In case of doubt, the rights issue will be perceived as not fully underwritten.

*July 1, 2011*

- 2.4 Only stock exchange quoted companies without restrictions on foreign ownership are eligible for inclusion in the GPR/HVB Asia Top 20 REIT Index.
- from* Only stock exchange quoted companies are eligible for inclusion in the GPR/HVB Asia Top 20 REIT Index.
- 4.2 Index values calculated will be published on the next trading day.
- from* Index values calculated on non-trading days in the Netherlands will be published on the first trading day following calculation.

*October 1, 2011*

- 5.10 In case of a merger or acquisition in which all of the companies involved are in the GPR/HVB Asia Top 20 REIT Index , only one company will continue to be part of the GPR/HVB Asia Top 20 REIT Index . The weight of this company is dependent on the free float market capitalization of the surviving company. Free float will be adjusted to publications following the offer. The compiler will not assign another company for inclusion. The final return will reflect the offer price.
- from* In case of a merger or acquisition in which all of the companies involved are in the index, only one company will continue to be part of the Index. The weight of this company is dependent on the free float market capitalization of the surviving company. Free float will be adjusted to publications following the offer. The compiler will not assign another company for inclusion. The final return will reflect the offer price or the latest trade; whichever is highest.
- 5.11 In case of a merger or acquisition in which one of the companies involved is in the GPR/HVB Asia Top 20 REIT Index and the other company does not meet the criteria as expressed in chapter 2, the company resulting from the activity will have to comply with these criteria in order for the company to remain included in the GPR/HVB Asia Top 20 REIT Index . If the resulting company fails to meet these criteria, the company will be excluded. The final return will reflect the offer price.
- from* In case of a merger or acquisition in which one of the companies involved is in the GPR/HVB Asia Top 20 REIT Index and the other company does not meet the criteria as expressed in chapter 2, the company resulting from the activity will have to comply with these criteria in order for the company to remain included in the GPR/HVB Asia Top 20 REIT Index. If the resulting company fails to meet these criteria, the company will be excluded.

*December 24, 2012*

- 2.13 If a company derives over 75% of the operational turnover from one country, not being the country of its primary stock listing thereby not crossing continental borders, the company is placed in the index of the country in which the assets are located.
- from* If a company derives over 75% of the operational turnover from one country, not being the country of its primary stock listing, the company is placed in the index of the country in which the assets are located.

*December 22, 2014*

- Glossary* Investment activities – Income generating property holdings, hereby excluding investments in infrastructure assets, telecom towers and billboards
- from* Investment activities – Income generating property holdings, including land

*June 23, 2015*

- Glossary* Primary stock listing – Quotation of the stock with the highest number of shares traded measured over a period of one year. In case no trading history over the past year is available the compiler will assign a primary stock listing
- from* Primary stock listing – Quotation of the stock with the highest number of shares traded

*July 1, 2016*

- 5.5 The selection of stocks included in the GPR/HVB Asia Top 20 REIT Index shall be adjusted quarterly on the basis of monthly trading volume on an absolute basis over the past year on the primary stock exchange. The 225 stocks trading the largest monthly volume on the relevant exchange will be selected. Thereafter the 25 stocks trading the largest monthly volume from those ranking 226th and 275th are selected whereby stocks currently part of the GPR/HVB Asia Top 20 REIT Index are favoured.
- from* The selection of stocks included in the GPR/HVB Asia Top 20 REIT Index shall be adjusted quarterly on the basis of monthly trading volume on an absolute basis over the past year on the primary stock exchange. The stocks trading the largest monthly volume on the relevant exchange will be selected.

*January 1, 2018*

- 6.6 There might be circumstances pursuant to which the compiler can decide to terminate the GPR/HVB Asia Top 20 REIT Index. Before deciding to terminate the Index, the compiler shall consult with the client(s) using the GPR/HVB Asia Top 20 REIT Index. If the compiler, after the consultation, decides to terminate the GPR/HVB Asia Top 20 REIT Index the compiler shall give the client(s) using the GPR/HVB Asia Top 20 REIT Index at least two (2) years prior notice before the GPR/HVB Asia Top 20 REIT Index is terminated. Whenever possible, the compiler shall suggest alternative indices to the client(s) using the GPR/HVB Asia Top 20 REIT Index.

*April 7, 2020*

- 3.12 In case a company decides to cancel or postpone a Dividend after the ex-dividend date an adjustment will be made to the index calculations to take into account the cancellation or postponement.

*July 1, 2021*

- 3.13 Once an error occurs in the calculation of the GPR/HVB Asia Top 20 REIT Index resulting in a deviation greater than 0.01 basis points, GPR will recalculate the impacted indices if (i) the error occurred in the last two business days and (ii) does not impact end-of-month index values.



*July 1, 2022*

5.12 After the occurrence of a de-merger of a company included in the GPR/HVB Asia Top 20 REIT Index, both the original and/or the newly created entities will immediately become part of the index whenever the new entities meet the criteria of chapter 2. Since monthly trading volume in case of de-merged companies is unknown at the time of inclusion this Rule replaces Rule 2.3.

*from* After the occurrence of a de-merger of a company included in the GPR/HVB Asia Top 20 REIT Index, both the original and/or the newly created entities will immediately become part of the index whenever the new entities meet the criteria of chapter 2.

## 8.1 Deriving returns for individual shares

Using the stock price and dividends the returns for the individual companies can be determined. We will assume calculation of the GPR Indices in euro. The following equation describes the calculation of the performance index returns:

$$r_{i,t}^{\epsilon} = \frac{P_{i,t_1}^{\epsilon} + D_{i,t_1}^{\epsilon} - P_{i,t_0}^{\epsilon}}{P_{i,t_0}^{\epsilon}}$$

In which,

$r_{i,t}^{\epsilon}$	Return of share $i$ in euro in period $(t_0, t_1)$
$P_{i,t_1}^{\epsilon}$	Price of share $i$ at time $t_1$ in euro
$D_{i,t_1}^{\epsilon}$	Dividend on share $i$ at time $t_1$ in euro
$P_{i,t_0}^{\epsilon}$	Price of share $i$ at time $t_0$ in euro
$t$	Latest trading day

The following equation describes the calculation of the price index in local currency:

$$r_{i,t}^{LOC} = \frac{P_{i,t_1}^{LOC} - P_{i,t_0}^{LOC}}{P_{i,t_0}^{LOC}}$$

In which,

$r_{i,t}^{LOC}$	Return of share $i$ in local currency in period $(t_0, t_1)$
$P_{i,t_1}^{LOC}$	Price of share $i$ at time $t_1$ in local currency
$P_{i,t_0}^{LOC}$	Price of share $i$ at time $t_0$ in local currency
$t$	Latest trading day

## 8.2 Deriving returns on countries

Combining the returns described above with weight of each company, we can calculate the country return. We do this by creating a portfolio with a certain initial value. We first determine the amount of money that needs to be invested in each company by dividing one by the number of companies; each company has therefore an equal weight. The amount of money invested in the company is the value of the portfolio times the weight of the company in the index. When the amount of money that will be invested in a specific company is known, we need to calculate the number of shares that are bought in the company to come to the actual investment. The amount of shares that is bought equals the investment in the company divided by the price of one share in the company.

The following equation describes the calculation of the weight of a company in the index:

$$W_{i,t0}^{\epsilon} = \frac{1}{n}$$

in which,

$$\begin{array}{ll} W_{i,t0}^{\epsilon} & \text{Weight of company } i \text{ at base date} \\ n & \text{Number of stocks included in the index} \end{array}$$

The return on the country index is a comparison of the portfolio value with the initial value. The following section elaborates on this.

We assume that at the base date a certain amount is invested in the property companies that comply with the selection criteria. In each company, an amount corresponding to the weight  $W_{i,t0}^{\epsilon}$  times the total investment of the portfolio  $I_{t0}$  will be invested. The amount of shares invested at the base date in company  $i$  equals the investment in company  $i$  divided by the price of a single share in company  $i$  at the base date  $t_0$ .

The number of shares that will be invested is needed to determine the change in value and the total dividend amount of the investment in a specific share. We calculate the value of the investment in share  $i$  after one period by multiplying the number of shares invested at the beginning of the period with the sum of the price and the dividend at the end of the same period.

The value of the investment in company  $i$  is now calculated by multiplying the amount of shares in the company with the return made on a single share:

$$I_{i,t}^{\epsilon} = (I_{t0}^{\epsilon} * W_{i,t0}^{\epsilon}) * r_{i,t}^{\epsilon}$$

in which,

$$\begin{array}{ll} I_{i,t}^{\epsilon} & \text{The value of the investment in company } i \text{ at time } t. \\ I_{t0}^{\epsilon} & \text{Investable capital at time } t_0 \end{array}$$

The total value of the index at  $t$  is calculated by taking the sum of the value of all investments in the index at time  $t$ , as the next equation shows. The value of the index is the sum of all returns on the investments of all shares at time  $t$ .

$$I_t^{\epsilon} = I_{t0}^{\epsilon} \sum_{i=1}^{N_{t-1}} W_{i,t0}^{\epsilon} * r_{n,t}^{\epsilon}$$

in which,

$$I_t^{\epsilon} \quad \text{Value of the index at time } t$$

Because the sum of the weights of the funds is 1 per definition, the equation can be re-written as follows:

$$I_t^{\epsilon} = I_{t0}^{\epsilon} \left( 1 + \sum_{n=1}^{N_{t-1}} (W_{n,t0}^{\epsilon} * r_{n,t}^{\epsilon}) \right)$$

in which,

$$N_{t0} \quad \text{Number of companies that met the inclusion criteria at time } t_0$$

Corporate actions can be grouped in events that concern dividends, capital changes, mergers & acquisitions, exceptional market conditions, capital increases and capital returns. Some Corporate actions are treated via an Adjustment Factor.

Within the different groups the following different types of corporate actions are defined (Corporate Actions marked with an asterisk have impact on the Adjustment Factor:

	<b>GROUP</b>	<b>Corporate Action</b>
1	DIVIDEND	Cash Dividend
2	DIVIDEND	Special Dividend
3	DIVIDEND	Stock Dividend or Scrip Dividend*
4	DIVIDEND	Optional Dividend
5	DIVIDEND	Bonus Dividend*
6	CAPITAL CHANGE	Share Split*
7	CAPITAL CHANGE	Share Consolidation or Reverse Share Split*
8	CAPITAL CHANGE	Share Redenomination
9	MERGER & ACQUISITION	Merger
10	MERGER & ACQUISITION	Demerger
11	MERGER & ACQUISITION	Spin-off
12	MERGER & ACQUISITION	Takeover
13	MERGER & ACQUISITION	Acquisition
14	EXCEPTIONAL MARKET CONDITION	Bankruptcy
15	EXCEPTIONAL MARKET CONDITION	Change of Primary Listing
16	EXCEPTIONAL MARKET CONDITION	Suspension
17	EXCEPTIONAL MARKET CONDITION	Share Conversion
18	CAPITAL INCREASE	Seasoned Offering
19	CAPITAL INCREASE	Rights Issue*
20	CAPITAL RETURN	Capital Return or Capital Repayment
21	CAPITAL RETURN	Share Buy-Back

#### **Cash Dividend**

Referring to Rule 3.8 and Rule 3.9, Cash Dividends are payments made by a company to its shareholders. In case the Cash Dividend currency differs from the share price currency, the Cash Dividend will be converted using the prevailing foreign exchange rates. Treatment of Cash Dividend is described in more detail in Rule 3.8 and Rule 3.9.

#### **Special Dividend**

Referring to Rule 3.8 and Rule 3.9, Special dividends are those dividends that are outside of the normal payment pattern established historically by the company. Whether a dividend payment is funded from operating earnings or from other sources of cash does not affect the determination of whether it is a special dividend. Instead, it is considered a Special Dividend when the market perceives it as a special dividend with dividends outside the normal payment pattern. In case the Special Dividend currency differs from the share price currency, the Special Dividend will be converted using the prevailing foreign exchange rates. Treatment of Special Dividend is described in more detail in Rule 3.8 and Rule 3.9.

#### **Stock Dividend or Scrip Dividend**

Referring to Rule 5.17, the Stock Dividend is a distribution of shares to shareholders as an alternative to a cash payment. In some instances the Stock Dividend can be optional, whereby the shareholder may choose the shares instead of a cash dividend payment. In this case the shares are issued for the value. An adjustment to the price and the Adjustment Factor is done on the opening of the ex-dividend date, and the number of shares is adjusted (increased) on the ex-dividend date after close of trading. When there is no cash alternative, the Stock Dividend represents a script/bonus issue and the Adjustment Factor should be calculated in the same way. Treatment of Stock Dividend or Scrip Dividend is described in more detail in Rule 5.17.

**Optional Dividend**

A company offers its shareholders the choice of receiving the dividend in cash or in stock. It is assumed that investors select the cash option a) on the ex-dividend date for those cases where a stated equivalent of stock is announced and b) on the pay-date for those cases where an undetermined amount of stock is announced based on earnings and profits to be distributed at a future date. Thus, the dividend is treated in the same way as Cash Dividend.

**Bonus Dividend**

A bonus is an offer of free additional shares to existing shareholders. A company may decide to distribute further shares as an alternative to increasing the dividend pay-out. An adjustment to the price and the Adjustment Factor is done on the opening of the ex- date, and the number of shares is adjusted (increased) on the ex-dividend date after close of trading.

**Stock Split**

Referring to Rule 5.17 and Rule 10.13, existing shares are subdivided into larger number of shares with an equivalent reduction in the Nominal Value of each share (where applicable). A Stock Split increases the number of shares in a company. The price is adjusted so that before and after this corporate event the market capitalization of the company remains the same and dilution does not occur. The number of shares, dividends and the share price are adjusted by the split factor on the ex-date. The share split does impact the Adjustment Factor as at the ex-date. Treatment of Stock split is described in more detail in Rule 5.17.

**Share Consolidation or Reverse Share Split**

A Reverse Share Split or reverse split is a reduction in the number of shares and an accompanying increase in the share price. The reverse split does have impact on the Adjustment Factor as at the ex-date.

**Share Redenomination**

The nominal value of existing shares in issue changes due to the change of currency. Therefore, the amount is converted using a set exchange rate.

**Merger**

Referring to Rule 5.10 and Rule 5.11, a Merger generally means that two or more companies merge to form one larger company. Treatment of a Merger is described in more detail in Rule 5.10 and Rule 5.11.

**Acquisition**

Referring to Rule 5.10 and Rule 5.11, an Acquisition generally means the procurement of a controlling interest of more than 85% in one company by another company and the acquired company may continue to trade. Shareholders of the target company are offered cash and/or shares for their holding. Treatment of an Acquisition is described in more detail in Rule 5.10 and Rule 5.11.

**Demerger**

Referring to Rule 5.12, a Demerger is the distribution of shares in a wholly-owned or a partially-owned company to the parent company's existing shareholders. Treatment of a Demerger is described in more detail in Rule 5.12.

**Spin-off**

Referring to Rule 5.13, a Spin-off is the distribution of shares in a wholly-owned or a partially-owned company to new shareholders. Treatment of a Spin-off is described in more detail in Rule 5.13.

**Takeover**

Referring to Rule 5.10 and Rule 5.11, a Takeover is also the acquisition of one company by another. However this term is normally – but not always – used to imply that the acquisition is made on the initiative of the acquirer and often without the full agreement of the acquired company. Shareholders of the target company are given cash and/or shares for their holding. A reverse takeover is the acquisition of a larger company by a smaller one, based on certain criteria such as turnover, profits or net assets. The mechanisms for carrying out an acquisition or takeover may be through a cash offer -fixed, open or tender-, a share exchange or a combination of both. Treatment of a Takeover is described in more detail in Rule 5.10 and Rule 5.11.

**Bankruptcy**

Referring to Rule 5.14, a company legally declares inability or impairment of ability to pay their creditors. Creditors may file a bankruptcy petition against a debtor in an effort to recoup a portion of what they are owed. However, in the majority of cases, bankruptcy is initiated by the debtor. After undergoing reorganization, a company is liquidated. Treatment of a Bankruptcy is described in more detail in Rule 5.14.

**Change of Listing**

If a company is delisted from the stock exchange within the universe of eligible stock exchanges for the index, there are two different options to consider: (i) the company's primary stock exchange listing changes to another stock exchange that is considered eligible for the index. There is no change in the index. (ii) The company remains unlisted, or the primary stock exchange listing changes to a stock exchange that is not considered eligible for the index. The company is removed from the index at its last closing price as shares would not be eligible for inclusion in the index.

**Suspension**

Referring to Rule 5.14, a security is removed at zero, assuming a total loss of the investment if a stock is suspended for full trading for at least three consecutive months. During those three months, the index calculation takes into account the last trading price for the security which is suspended. The Treatment of a suspension of trading is described in more detail in Rule 5.14.

**Share Conversion**

Share Conversion is the exchange of one form of shares for another form of shares of the same company.

**Seasoned Offering**

Referring to Rule 5.15, seasoned offerings are an offer of shares to new shareholders. The number of shares is adjusted when the offered shares are effectively admitted to trading on the stock exchange.

**Rights Issue**

Referring to Rule 5.19, shareholders are offered the right to buy new shares in proportion to their existing holding at a set offer price usually (but not always) at a discount to the market price. Rights are an offer of additional shares to existing shareholders. A company may decide to distribute further shares as an alternative to increasing the dividend pay-out. The rights issue does have impact on the Adjustment Factor as at the ex-date. Treatment of a Rights Issue is described in more detail in Rule 5.19.

**Capital Return or Capital Repayment**

Capital repayments to shareholders is the return of all or any portion of the issued capital of a company in the winding up of operations or the return of capital in excess of a company's requirements. A capital repayment refers to payments that exceed the growth (net income/taxable income) of a business back to "capital owners", such as shareholders, partners or unit holders. The Capital Repayment is a transfer of value from the company to the existing owners.

**Share Buy-Back**

The repurchase by a company of its own shares, in order to reduce the number of shares in issue, usually at a set price either as a percentage of shares issued or ratio of shares held. A Share Buy-Back may be performed via a repurchase tender offer (to all shareholders), an open market purchase or a privately negotiated purchase. Share buybacks are implemented only under a tender offer form.

**Africa**

Botswana	Botswana Stock Exchange	XBOT
Namibia	Namibian Stock Exchange	XNAM
South Africa	Johannesburg Stock Exchange	XJSE

**Americas**

Argentina	Bolsa de Comercio de Buenos Aires	XBUE
Brazil	Bovespa (Sao Paulo SE)	BVMF
Canada	Toronto Stock Exchange	XTSE; XTSX
Chile	Santiago Stock Exchange	XSGO
Colombia	Bolsa De Valores De Colombia	XBOG
Mexico	Bolsa Mexicana de Valores	XMEX
United States	New York Stock Exchange	XASE; XGNS; XNAS; XNCM; XNMS; XNYS

**Asia**

Hong Kong	Hong Kong Stock Exchange	XHKG
India	The Bombay Stock Exchange	XBOM
Indonesia	Indonesia Stock Exchange	XIDX
Japan	Tokyo Stock Exchange	XJAS; XTKS
Korea	Korea Exchange	XKOS; XKRX
Malaysia	Bursa Malaysia	XKLS
Pakistan	Pakistan Stock Exchange Limited	XKAR
Philippines	Philippine Stock Exchange	XPHS
Singapore	Singapore Exchange	XSES
Taiwan	Taiwan Stock Exchange	ROCO; XTAI
Thailand	The Stock Exchange Of Thailand	XBKF; XBKK
Vietnam	Ho Chi Minh Stock Exchange	XSTC

**Europe**

Austria	Vienna Stock Exchange	XWBO
Belgium	Euronext Brussels	XBRU
Croatia	Zagreb Stock Exchange	XZAG
Denmark	Nasdaq Copenhagen A/S	XCSE
Finland	Nasdaq Helsinki	FNFI; XHEL
France	Euronext Paris	ALXP; XPAR
Germany	Deutsche Börse	XBER; XDUS; XETR; XFRA; XHAM; XMUN; XSTU
Greece	Athens Stock Exchange	XATH
Hungary	Budapest Stock Exchange	XBUD
Ireland	Euronext Dublin	XDUB
Israel	Tel Aviv Stock Exchange	XTAE
Italy	Italian Stock Exchange	XMIL
Malta	Malta Stock Exchange	XMAL

Netherlands	Euronext Amsterdam	XAMS
Norway	Oslo Stock Exchange	XOSL
Poland	Warsaw Stock Exchange	XWAR
Portugal	Euronext - Euronext Lisbon	XLIS
Romania	Spot Regulated Market - BVB	XBSE
Russian Federation	Moscow Exchange - All Markets	MISX
Slovenia	Ljubljana Stock Exchange (Official Market)	XLJU
Spain	Bolsas y Mercados Españoles	MABX; XMAD
Sweden	Nasdaq Stockholm	FNSE; SSME; XNGM; XSAT; XSTO
Switzerland	SIX Swiss Exchange	XSWX; XVTX
Turkey	Istanbul Stock Exchange	XIST
United Kingdom	London Stock Exchange	XLON

#### **Oceania**

Australia	Australian Stock Exchange	XASX
New Zealand	New Zealand Exchange	XNZE



11 EXPLANATION OF HOW ESG FACTORS ARE REFLECTED

Name of the benchmark administrator	Solactive AG
Type of benchmark or family of benchmarks	Equity
Name of the benchmark or family of benchmarks	GPR/HVB Asia Top 20 REIT Index
Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No

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