

# RULES OF THE GPW INDICES FAMILY<sup>1</sup>

<b>Rules of the GPW Indices Family, adopted by Resolution No. 59/2020 of the GPW Benchmark S.A. Management Board of 17 Aug. 2020 (with amendments)</b>		
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<b>Changes to the text:</b>		
Resolution	Changes	Entry into force
59/2020 of 17.08.2020	Replacement of the Rules 3 March 2020 version	16.09.2020
79/2020 of 26.10.2020	Regulations concerning WIGtechTR Index, deletion of 14.4, editorial corrections	01.12.2020
18/2020 of 12.02.2021	Introduction of changes: new criterion of minimum one transaction in 4.1.1 and 12.1.6, changes in the weights of determining ranking points in 5.1.6, introduction of the MTR ratio in 5.1.8, new rule on index participant deletion on the Bank Guarantee Fund request in 5.2.22, 5.2.23, 5.4.17, 5.4.18, 5.6.17, 5.6.18, 10.1.21 and 10.1.22, value changes of ranking positions in 5.4.8, 5.4.9, 5.4.13, 5.4.14, 5.6.8, 5.6.9, 5.6.13 and 5.6.14, new provisions on the reserve list in 8.6.4, 10.1.17, 10.1.18 and 10.1.19, a minimum number of companies required to determine the Index added in 10.1.16, application of new determination rules of the composition of Index portfolios as part of the periodic adjustment of Indices on March 19, 2021 in 14.3.5	19.03.2021 (without prejudice to 14.3.5)
40/2021 of 02.07.2021	Corrections of points 8.3.10 and 8.3.11 regarding Best Practice Ranking	01.08.2021
55/2021 of 05.11.2021	Addition in point 14.3.4 of the premise concerning the introduction of a new Index	06.12.2021
57/2021 of 19.11.2021	Change of name of the WIG.GAMES index to WIG.GAMES5 deletion of provisions relating to the WIG-telecom index due to cessation of development of the index	20.12.2021 <b>(pending)</b>

<sup>1</sup> Translation provided by the Administrator for information purposes only; Polish text binding in case of doubt

## 1. DEFINITIONS

<b>Administrator</b>	GPW Benchmark S.A., with its seat in Warsaw at: ul. Książęca 4, 00-498 Warsaw, entered into the register of entrepreneurs of the National Court Register, kept by the District Court for the capital city of Warsaw in Warsaw, 12th Business Division of the National Court Register, with KRS number: 0000493097, Tax Identification Number (NIP): 5252546511, with the registered capital in the amount of PLN 2,900,000, paid up in full
<b>BFG</b>	The Bank Guarantee Fund (BFG)
<b>Multilateral Trading Facility</b>	a multilateral trading facility referred to in Article 3(2) of the Act of 29 July 2005 on trading in financial instruments (Dz.U. of 2018, item 2286, as amended), operated by the Exchange
<b>Parametrisation Data</b>	data other than the Input Data, forming part of the Methodology for Determining the GPW Indices, aimed at ensuring accuracy and reliability of GPW Indices, in particular any data used to determine the Rankings and Index Portfolios
<b>Input Data</b>	input data within the meaning of Article 3(1)(14) of the Benchmarks Regulation, concerning transactions as regards financial instruments traded on the markets operated by the Exchange and used by the Administrator to determine the value of GPW Indices
<b>Information Document</b>	a prospectus, an information memorandum or another document required to be published or made available when requesting for admission of financial instruments to trading on a Regulated Market, according to the provisions of the Act of 29 July 2005 on public offer and conditions for admission of financial instruments to an organised trading system and on public companies (Dz.U. of 2019, item 623) or the Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC (OJ EU L 168 of 30.6.2017, pp. 12–82, as amended)
<b>Trading Day</b>	any business day on which the trading session takes place
<b>Ranking Day</b>	the day on which the Ranking is determined, according to the Methodology of Determining the specified GPW Index
<b>Fund</b>	a legal person whose sole object of activity is investing money, acquired by means of public, and in situations specified in the Act of 27 May 2004 on investment funds and managing alternative investment funds (i.e. Dz.U. of 2020, item 95) also through non-public offer of purchase of units or investment certificates, securities, money market instruments and other property rights specified in the above-mentioned Act
<b>Exchange/ GPW</b>	Giełda Papierów Wartościowych w Warszawie S.A., with its seat in Warsaw at: Książęca 4, 00-498 Warsaw, entered into the register of entrepreneurs of the National Court Register, kept by the District Court for the capital city of Warsaw in Warsaw, 12th Business Division of the National Court Register, with KRS number: 0000082312, Tax Identification Number (NIP): 5260250972, with the registered capital in the amount of PLN 41,972,000, paid up in full

<b>GPW Indices / Indices</b>	WIG, WIG20, WIG20TR, mWIG40, mWIG40TR, sWIG80, sWIG80TR, WIG30, WIG30TR, WIGdiv, WIG20short, WIG20lev, WIG20dvp, mWIG40dvp, sWIG80dvp, WIG-CEE, WIG-ESG, WIGtech, WIGtechTR, National Indices, Macrosector Indices, NewConnect Indices and Subsector Indices constituting a family of benchmarks within the meaning of Article 3(1)(4) of the Benchmarks Regulation (the so-called GPW Index Family), and depending on the context, any other index or benchmark being provided by the Administrator and included in the GPW Indices Family
<b>Macrosector Index</b>	WIG.MS-BAS, WIG.MS-FIN, WIG.GAMES5 and WIG.MS-PET
<b>National Index</b>	WIG-Poland and WIG-Ukraine
<b>NewConnect Index</b>	NCIndex
<b>Sector Classification</b>	sector classification of Companies by the Administrator, according to the Sector Classification Regulations
<b>KNF</b>	the Polish Financial Supervision Authority (KNF)
<b>Oversight Committee</b>	the Oversight Committee for Capital Market Benchmarks; a committee established by the Administrator and acting as the oversight function within the meaning of Article 5 of the Benchmarks Regulation
<b>Reference Price</b>	a reference price determined according to the GPW Rules and the Detailed Exchange Trading Rules in the UTP System, and for the WIG-CEE Index – also a reference price determined according to Annex 2 to the Rules of the Multilateral Trading Facility; and for NCIndex – a reference price determined according to Annex 2 to the Rules of the Multilateral Trading Facility
<b>Closing Price</b>	a closing price determined according to the GPW Rules and the Detailed Exchange Trading Rules in the UTP System, and for NCIndex – a closing price determined according to Annex 2 to the Rules of the Multilateral Trading Facility
<b>Methods of Determining the Indices</b>	methodology applied by the Administrator to determine each of the GPW Indices, described in these Rules
<b>NBP</b>	the National Bank of Poland
<b>Paris Agreement</b>	The global agreement adopted in Paris under the United Nations Convention Framework on the climate change, ratified by the European Union on the 5 <sup>th</sup> of October 2016
<b>Exchange Trading</b>	exchange trading within the meaning of the GPW Rules and the Detailed Exchange Trading Rules in the UTP System
<b>Index Portfolio / Subsector Index Portfolio</b>	a component of the given GPW Index or a Subsector Index which comprises a group of Listed Companies, qualified for this particular GPW Index or Subsector Index

<b>Procedure for receiving and processing complaints</b>	the procedure for receiving and processing complaints, adopted by the Administrator
<b>Financial Product</b>	a financial instrument within the meaning of the Act of 29 July 2005 on trading in financial instruments (Dz.U. of 2018, item 2286, as amended) or a structured deposit within the meaning of the Act of 29 August 1997 'Banking Law' (Dz.U. of 2018, item 2187, as amended)
<b>Publication of Indices</b>	publication of the values of the Indices, according to the Rules
<b>Ranking / Index Ranking</b>	a list of Companies that meet the selection criteria for the Index, based on which each Index Portfolio is constructed; determined according to the principles set out in the Rules for each Index separately and subject to periodic revision and adjustment
<b>ESG Ranking</b>	Ranking based on compliance with environmental protection, social policy and corporate governance principles (ESG- <i>Environmental, Social, Governance</i> factors) based on data from ESG Risk Rating Reports developed by the independent research agency Sustainalytics B.V. located in the Netherlands
<b>Best Practices Ranking</b>	Ranking created by the GPW based on the analysis of reports drawn up on the basis of § 29 (3) of the Stock Exchange Regulations and statements on the application of corporate governance principles, posted in annual reports of the Companies, specified in the Code of Best Practice for GPW Listed Companies
<b>Rules</b>	these Rules of GPW Indices Family
<b>Rules of the Multilateral Trading Facility</b>	the Rules of the Multilateral Trading Facility, together with annexes, adopted by the Exchange
<b>Sector Classification Rules</b>	Sector Classification Rules, adopted by the Administrator
<b>Rules of determination of free-float shares</b>	the Rules of determination of free-float shares, adopted by the Administrator
<b>Benchmarks Regulation</b>	Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or for measuring the results of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 (OJ EU L 171 of 29.6.2016, p. 1)
<b>Regulated Market</b>	a regulated market as referred to in Article 14(1) of the Act of 29 July 2005 on trading in financial instruments, operated by GPW
<b>Session / Trading Session</b>	a trading session within the meaning of Chapter 10 of the GPW Rules, and for the WIG-CEE index – also the trading day in the Multilateral Trading Facility; for the NewConnect Index – the trading day in the Multilateral Trading Facility

<b>Listed Company / Company</b>	a public limited company whose shares have been admitted and introduced to Trading; for the WIG-CEE Index – a public limited company listed on the Regulated Market or the Multilateral Trading Facility; for the NewConnect Index – a public limited company listed on the Regulated Market or the Multilateral Trading Facility on the NewConnect Market
<b>Subsector Indices</b>	Subsector Indices of the WIG Index: WIG - food, WIG - banking, WIG - construction, WIG - IT, WIG - media, WIG – oil and gas, WIG – real estate, WIG - chemical, WIG - energy, WIG - mining, WIG - clothes, WIG - pharmaceuticals, WIG – automobiles and parts
<b>Single-Price Auction System</b>	a system of trading on Trading Sessions, referred to in Article 131(1)(2) of the GPW Rules
<b>Continuous Trading System</b>	a system of trading on Trading Sessions, referred to in Article 131(1)(1) of the GPW Rules
<b>Detailed Exchange Trading Rules</b>	the Detailed Exchange Trading Rules in the UTP System, adopted by the GPW
<b>Transaction / Exchange Transaction</b>	for Companies listed on the Regulated Market – an exchange transaction within the meaning of the GPW Rules; for Companies listed in the Multilateral Trading Facility – a transaction within the meaning of the Rules of the Multilateral Trading Facility
<b>Participant / Index Participant</b>	a Company in the Index Portfolio or the Subsector Index
<b>Financial Contract</b>	a financial contract within the meaning of Article 3(1)(18) of the Benchmarks Regulation
<b>Licence Agreement for Using the Index</b>	an agreement concluded according to the Rules, authorising the use of a GPW Index within the scope referred to in 2.6.1 of these Rules
<b>Index User</b>	an entity using a GPW Index within the scope referred to in 2.6.1 of the Rules
<b>WIBOR</b>	one of the interest-rate benchmarks provided by the Administrator

## 2. GENERAL PROVISIONS

### 2.1. Rules

#### 2.1.1. These Rules specify:

- a) detailed principles of construction and publication of the GPW Indices,
- b) the role of the Administrator in the process of providing the GPW Indices,
- c) principles of using the GPW Indices by the Users,
- d) key elements of the Methodology of Determining the GPW Indices, according to Article 13(1)(a) of the Benchmarks Regulation,
- e) description of the Input Data, including the description of the types of Input Data, the guidelines for priority and hierarchy of their use in the Methodology of Determining the GPW Indices according to Article 11(1)(c) of the Benchmarks Regulation,
- f) an explanation of whether and how the key elements of the Methodology of Determining the GPW Indices reflect environmental, social and corporate governance factors in accordance with Article 13(1)(d) of the Benchmarks Regulation,
- g) mechanisms that allow to identify any circumstances in which the quantity or quality of the Input Data cease to meet the standards necessary for accurate and reliable determination of the GPW Indices using the Methodology of Determining the GPW Indices, and the manner in which the GPW Indices should be determined in such an event, according to Article 12(3) of the Benchmarks Regulation,
- h) information on the internal review and the approval of the Methodology of Determining the GPW Indices according to Article 13(1)(b) of the Benchmarks Regulation,
- i) information on the procedures for consulting on any proposed material change in the Methodology of Determining the GPW Indices according to Article 13(1)(c) of the Benchmarks Regulation,
- j) information on the procedure concerning the actions to be taken by the Administrator in the event of changes to or cessation of providing the GPW Indices, according to Article 28(1) of the Benchmarks Regulation.

### 2.2. Administrator

#### 2.2.1. The Administrator exercises control over the provision of the GPW Indices.

#### 2.2.2. Control over the provision of the GPW Indices includes any actions necessary to fulfil the duties of the Administrator as regards the GPW Indices within the meaning of the Benchmarks Regulation, and in particular:

- a) administering the arrangements for determining the GPW Indices,
- b) collecting, analysing and processing the Input Data for the purposes of determining the GPW Indices,
- c) determining the GPW Indices according to these Rules.

### 2.3. The Oversight Committee for Capital Market Benchmarks

#### 2.3.1. The Administrator shall appoint and maintain the Oversight Committee which constitutes a permanent oversight function within the meaning of the Benchmarks Regulation, to ensure oversight over all aspects of the provision of the GPW Indices.

- 2.3.2. The Administrator shall ensure services to the Oversight Committee and provide it with access to any information necessary to perform the tasks of the Oversight Committee.
- 2.3.3. The tasks and the detailed rules on the organisation and the functioning of the Oversight Committee shall be specified in separate Rules on the Oversight Committee adopted by the Administrator.
- 2.4. Communication between the Administrator and the Users
  - 2.4.1. Any information and documents addressed to the Index Users shall be made available by the Administrator by means of their publication on the Administrator's website: [www.gpwbenchmark.pl](http://www.gpwbenchmark.pl).
  - 2.4.2. The Index Users shall communicate with the Administrator with the use of the contact data indicated on the Administrator's website or in a manner specified in any Licence Agreements for Using the Index they have concluded.
- 2.5. Publication of the GPW Indices
  - 2.5.1. The values of the GPW Indices shall be published by the Administrator on the Administrator's website on the Session Day, with the frequency specified in the Rules.
  - 2.5.2. The Administrator shall not publish the value of the GPW Index if the conditions for publication specified in the methodology of determining the given GPW Index have not been met. If publication of the value of the GPW Indices is not possible, the Administrator shall communicate this to the Index Users.
- 2.6. Using the Index
  - 2.6.1. Using the GPW Index consisting in:
    - a) creating a Financial Product which references an Index, to be used by the Index User or a third party,
    - b) issuing, offering or admitting to trading a Financial Product referred to in letter a),
    - c) calculating the amount payable under the Financial Product or the financial contract, by referencing an Index or a combination of Indices,
    - d) measuring the performance of an investment fund with the use of the Index or a combination of Indices, for the purpose of tracking the return of such Index or a combination of Indices, or for the purpose of defining the asset allocation of a portfolio or computing the performance fees,
    - e) informing about significant features and characteristics of the Financial Product referred to in letters a)-d), using the word and graphic sign of the Index in its name and in any information or commercial materials and documents in any form and related to the Financial Product,
    - f) may be performed solely under the Licence Agreement for Using the Index.
  - 2.6.2. The Licence Agreement for Using the Index shall specify in particular:
    - a) the Administrator's obligation to provide the GPW Index according to the rules specified by the laws applicable to the Administrator, and according to these Rules,
    - b) the Index User's obligation to pay the Administrator a fee for the provision of the GPW Index.

- 2.6.3. The Administrator shall make available a template of the Licence Agreement for Using the Index in the manner specified in point 2.4.1 and shall specify the rules of its signing by the Index User.
- 2.7. Complaints from the Index Users
  - 2.7.1. The GPW Index Users may submit complaints to the Administrator, under the principles specified in the Procedure for receiving and processing complaints, and the most important parts of this Procedure shall be published by the Administrator on the Administrator's website, according to point 2.4.1.
- 2.8. Liability of the Administrator
  - 2.8.1. The rules of the Administrator's liability towards the Index Users shall be specified in the Licence Agreement for Using the Index.



### 3. KEY ELEMENTS OF THE METHODOLOGY OF DETERMINING THE GPW INDICES

#### 3.1. Definition and description of the GPW Indices

- 3.1.1. The characteristics of specific GPW Indices, the detailed rules of their construction, the methodology of their determination and the detailed rules on the composition of their Portfolios shall be specified by the Administrator.
- 3.1.2. The GPW Indices are indices within the meaning of Article 3(1)(1) of the Benchmarks Regulation and regulated-data benchmarks within the meaning of Article 3(1)(24) of the Benchmarks Regulation.
- 3.1.3. The GPW Indices constitute a family of benchmarks within the meaning of Article 3(1)(4) of the Benchmarks Regulation as:
  - a) they are determined from the Input Data of the same nature,
  - b) they are aimed at measuring the same market, described in point 3.2 of the Rules.
- 3.1.4. The GPW Indices have been classified by the Administrator as non-significant benchmarks within the meaning of the Benchmarks Regulation, except for the WIG20 Index which has been classified as a significant benchmark.
- 3.1.5. Companies in the Portfolio of a given Index are components of such an Index.

#### 3.2. Description of the underlying market measured by the GPW Indices

- 3.2.1. The GPW Indices are aimed at measuring processes taking place within a separate segment of the Polish capital market, i.e. a regulated market within the meaning of Article 4(1)(21) of Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, operated by the GPW which organises trading in financial instruments on this venue (the "Main Market").
- 3.2.2. Financial instruments traded on the Main Market are: shares, rights to shares, subscription rights, investment certificates, subscription warrants, ETF shares, structured products and derivatives. There are two venues within the Main Market:
  - a) Primary Market – the official market, of official exchange trading. Qualified for trading on the primary market are those securities that meet the criteria of appropriate value and free-float, and whose issuers have published their financial statements for the last three years,
  - b) Parallel Market – securities of the smallest companies, with a liquidity lower than that on the Main Market, are listed on the Parallel Market.
- 3.2.3. Each of the GPW Indices is aimed at measuring a different segment of the Main Market described above, e.g.:
  - a) WIG20 Index – an index calculated on the basis of the criterion of the portfolio value of the twenty largest and most liquid Companies on the Main Market:
  - b) National Indices – indices calculated on the basis of listings of shares of Companies classified by the Administrator according to the company's seat (e.g. WIG-Ukraine, which includes Companies listed on the Main Market whose registered or main office is in Ukraine, or the activity of which is conducted to the largest extent in this country),
  - c) Subsector Indices – total return indices grouping Companies from selected industries, defined by the Administrator, uniform due to their specific nature (e.g. WIG-mining, comprising Companies in the WIG Index portfolio and at the same time classified as operating in the mining industry).

### 3.3. Data used for determining the GPW Indices

3.3.1. The Administrator shall use two types of data, depending on the actions performed to determine the GPW Indices:

- a) the Parametrisation Data which include:
  - i. information on the shares of the Companies;
  - ii. information related to determining the number of shares in free float,
  - iii. information on the market capitalisation of the Companies,
  - iv. information on the history of dividends paid by the Company,
  - v. information on the liquidity of shares,
- b) the Input Data from the trading system.

3.3.2. The Parametrisation Data do not constitute the Input Data.

3.3.3. The Input Data used by the Administrator to provide the Indices shall include the input data within the meaning of Article 3(1)(4) of the Benchmarks Regulation, being the prices from the last transactions in shares of the Companies at the Session, and if there were no transactions – the Reference Prices.

3.3.4. The Input Data used by the Administrator to provide the Indices are the prices of shares, contributed directly from the trading system operated by the GPW. The specific nature of the Input Data contributes directly from the trading system and the Methodology of Determining the GPW Indices adopted by the Administrator guarantee that these data are sufficient, accurate and verifiable.

3.3.5. The source of the Input Data are: the Regulated Market and the Multilateral Trading Facility; the process of providing the GPW Indices does not include any entities that contribute data within the meaning of the Benchmarks Regulation.

3.3.6. The Input Data used by the Administrator are considered as equivalent, which means that the Administrator has not specified any hierarchy of their use.

3.3.7. The Administrator has specified the minimum requirements for the quantity of Input Data, applied as part of the Methodology of Determining the GPW Indices, and in particular in accordance with the provisions of point 4.1 and 4.2 of the Rules.

### 3.4. Additional Information on the Methodology of Determining the GPW Indices

3.4.1. depending on the detailed construction of a given Index, the method of its determination shall or shall not include the reinvestment of dividends or coupons paid on account of their components.

3.4.2. The Administrator, under the Methodology of Determining the GPW Indices, shall not exercise expert judgement or discretion as regards the Input Data.

### 3.5. Environmental, social and corporate governance factors ("ESG factors"):

3.5.1. The method of developing WIG-ESG includes ESG factors applied in accordance with the rules of portfolio construction and publication of this Index, described in point 8 of the Rules.

3.5.2. The methods of developing GPW Indices other than WIG-ESG currently do not include the implementation of environmental, social and corporate governance targets.

3.5.3. None of the GPW Indices qualifies as the EU benchmark for climate transformation or EU benchmark adapted to the Paris Agreement.

- 3.5.4. The construction of the GPW Indices do not include goals of reducing carbon dioxide emissions or accomplishing the objectives of the Paris Agreement.

#### 4. PRINCIPLES OF CONSTRUCTION OF REGULATED MARKET GPW INDICES

##### 4.1. Principles of qualifying Listed Companies to the GPW Indices

- 4.1.1. Having fulfilled the conditions specified in these Rules, a Listed Company is eligible to enter a list of Participants of a given Index if its number of shares in free float is higher than 10%, the value of shares in free float as of the date of the Ranking for a given Index is higher than the PLN equivalent of EUR 1.0 million, and its shares have been a the subject of at least one Exchange Transaction within the last three months.
- 4.1.2. The number of shares in free float and the value of shares in free float shall be established according to the provisions of the Rules for determining the shares in free float.
- 4.1.3. The list of Participants may not include those Listed Companies which have been assigned a special designation by the GPW under Article 3(1) of Division 7 of the GPW Detailed Exchange Trading Rules.
- 4.1.4. The list of Participants may not include those Listed Companies whose shares have been classified by the Exchange in the regulated market segment "ALERT LIST" or in the Lower Liquidity Zone.
- 4.1.5. If the shares of the Company are classified in the regulated market segment "ALERT LIST" or in the Lower Liquidity Zone, the Listed Company is removed from the list of Participants of the given Index.
- 4.1.6. The rules of classification of Listed Companies in the regulated market segment "ALERT LIST" are specified in a relevant resolution of the Exchange Management Board.
- 4.1.7. The rules of classification of Listed Companies in the Lower Liquidity Zone are specified in a relevant resolution of the Exchange Management Board

##### 4.2. Principles of Determining the GPW Indices

- 4.2.1. The values of the GPW Indices are determined based on the following formula:

$$Index(t) = \frac{M(t)}{M(0) * K(t)} * Index(0)$$

M(t) – capitalisation of the Index Portfolio at Session "t"

M(0) – capitalisation of the Index Portfolio on the base date

Index(0) – Index value on the base date

K(t) – Index adjustment coefficient at Session "t"

- 4.2.2. The Index values are calculated based on the prices of the last Transactions at a Session, or based on the Reference Prices if there were no transactions, expressed in PLN.
- 4.2.3. The weighting and the share price of the Index Participant changes automatically if the share nominal value is reduced or increased.
- 4.2.4. The number of shares (weighting) of a Company in the Index Portfolio includes all its shares in free float.
- 4.2.5. Subject to the circumstances described in the Rules, the number of shares (weighting) of a given Index Participant changes when the number of shares in free float of such Participant, being the basis for determination of such weighting, is

increased or reduced by a number of shares whose equivalent in PLN is at least EUR 250 million.

- 4.2.6. The weighting in the Index Portfolios upon revision, adjustment or extraordinary adjustment shall be rounded up or down to the nearest thousand.
- 4.2.7. To maintain continuity of the values of GPW Indices during revision, adjustment or extraordinary adjustment, an adjustment coefficient shall be applied.
- 4.2.8. The adjustment coefficient applicable at the Session following revision, adjustment or extraordinary adjustment shall be calculated based on the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

M(t') – capitalisation of the Index Portfolio after revision, adjustment or extraordinary adjustment calculated on the basis of the last price

M(t) – capitalisation of the closing Index Portfolio before revision, adjustment or extraordinary adjustment

K(t) – previous value of the adjustment coefficient

K(t+1) – new value of the adjustment coefficient

#### 4.3. GPW Indices Publication Principles

- 4.3.1. Opening values of the GPW Indices, calculated on a continuous basis, shall be disclosed to the public after the W opening indicator reaches 65% but not later than one hour after the opening of a Session.
- 4.3.2. The W opening indicator is calculated as the ratio of the current value of the number of shares (weighting) for which Transactions were concluded during the Session, to the current capitalisation of the Portfolio of a given GPW Index.
- 4.3.3. Upon the publication of the opening value, the subsequent values of Indices calculated on a continuous basis shall be disclosed to the public in accordance with the following timetable:

WIG20, mWIG40, Macrosector Indices	every 15 seconds
sWIG80, WIG30, WIG, WIGdiv, WIG-ESG, WIGtechTR, Subsector Indices	every 60 seconds
WIG20TR, mWIG40TR, sWIG80TR	every 5 minutes

- 4.3.4. Opening values of the GPW Indices, calculated on a continuous basis, shall be disclosed to the public after the W opening indicator reaches 65%, otherwise the opening value equals to the closing value.
- 4.3.5. The W opening indicator is calculated as the ratio of the current value of the number of shares (weighting) for which Transactions were concluded during the Session, to the current capitalisation of the Portfolio of a given GPW Index.
- 4.3.6. The values of Indices calculated on a continuous basis shall be disclosed to the public in accordance with the following timetable:

WIG30TR, WIGtech, National Indices	11:15 am opening, 03:15 pm after the second fixing
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- 4.3.7. Upon the session end, final opening and closing values of the Indices as well as statistical ratios containing the summary of the day shall be published.
- 4.3.8. The closing value of the index shall be the central day value of the index, used in particular to recalculate the K(t) adjustment coefficient values.
- 4.3.9. If cancellation of Exchange Transactions affects the value of GPW indices, the opening and closing values of such Indices, as well as their daily maximum and minimum values shall be recalculated and once again published after the Session. During the Trading Session the Administrator shall not perform any recalculation or re-publication of Indices.
- 4.4. Announcing changes (annual revisions, quarterly and extraordinary adjustments) to the GPW Indices
- 4.4.1. Information about the changes in the GPW Indices shall be disclosed to the public in accordance with the following timetable:

Index	Quarterly revisions and adjustments	Extraordinary adjustments
WIG20, WIG20TR, mWIG40, mWIG40TR, sWIG80, sWIG80TR, WIG30, WIG30TR	At least 2 weeks before their effective date	2 days before their effective date and in the events specified in point 5.2.22–5.2.26, 5.4.17–5.4.21 and 5.6.17–5.6.20–immediately
Macrosector Indices	At least 1 week before their effective date	2 days before their effective date, and in the events specified in point 10.1.18–10.1.21–immediately
WIG, National Indices, WIG-ESG, WIGtech, WIGtechTR, Subsector Indices, WIGdiv	At least 1 week before their effective date	Immediately

## 5. DETAILED RULES FOR CONSTRUCTION OF WIG20, WIG20TR, WIG30, WIG30TR, mWIG40, mWIG40TR, sWIG80 AND sWIG80TR INDICES

### 5.1. Index Ranking

- 5.1.1. The Index Ranking is used for introducing changes to the Index Portfolios as a result of quarterly revisions or adjustments.
- 5.1.2. The Index Ranking is developed 4 weeks before the date of quarterly revision or adjustment, on the Ranking Day.
- 5.1.3. The Ranking is developed based on the percentage share in the total trading and the percentage share in the total value of free float shares of all Companies in the Ranking.
- 5.1.4. The trading value, being the basis of the Ranking, is calculated based on share trading in the Single-Price Auction System and the Continuous Trading System for the period of 12 months. In the case of a merger of two or more Companies, the value of share trading of such Companies is added.
- 5.1.5. The value of shares in free float is calculated as the Closing Price of the shares times the number of shares in free float on the Ranking Day, while the Closing Price is selected randomly from the period comprising the Ranking Day and four Session Days directly precedent. The Ranking shall not include those Companies which as of the Ranking Day are in the last quartile of the list of Companies ranked by the value of their equity in free float.
- 5.1.6. The ranking score is calculated using the following formula:

$$R(i) = 0.4 * sT(i) + 0.6 * sC(i)$$

$R(i)$  - ranking points scored by the Company "i"

$sT(i)$  - percentage of the traded volume of shares of the Company "i" in the total traded volume of shares of the Companies in the Ranking

$sC(i)$  - percentage of the value of free float shares of the Company "i" in the value of free float shares of the Companies in the Ranking

- 5.1.7. The qualification of the Company to a given Index as part of the annual revision or quarterly adjustment is additionally based on the Monthly Turnover Ratio (MTR), determined independently for the WIG20, mWIG40, sWIG80 and WIG30 Indices, while the same MTR value is set for WIG20 and WIG30.
- 5.1.8. The MTR indicator is determined on the basis of the following formula:

$$MTR(\%) = \text{median}(DTR(\%))$$

where

$$DTR(\%) = \frac{\text{daily trading volume}}{\text{number of free - float shares} (*)} * 100$$

*\*as at the end of the month*

- 5.1.9. Indicator level for each Company is verified for the last 12 months before the Ranking Date.
- 5.1.10. Each Company undergoes the following verification process to qualify for the list of Index Participants:
  - a) the first stage - qualification for the Index takes place when the Company exceeds the MTR level in 8 out of 12 months; fulfilment of this criterion completes the verification,

- b) second stage - if the Company does not qualify for the Index in the first stage according to point a), the second stage verification is carried out in which the Company qualifies for the Index when it exceeds the MTR level in 4 out of the last 6 months. The fulfilment of this criterion completes the verification.

- 5.1.11. If the Company does not meet the MTR criterion in the first or the second stage, it is not qualified for a given Index, subject to point 5.1.7.
- 5.1.12. The MTR level is determined on the basis of the following formula for a period of 12 months as at the end of the calendar year:

$$MTR(\%) \text{ level} = \min_{i \in N}(MTR(\%)_i) + 0,2 * \text{average}_{i \in N}(MTR(\%)_i)$$

where,

N - portfolio of a given Index containing the i-th number of Companies

- 5.1.13. The designated MTR levels for each of the Indexes are published on the Administrator's website after the last session in January each year. For the first time, the values of MTR will be announced on the date of publication of changes to Rules.
  - 5.1.14. Compliance with the MTR criterion will not be verified for the Companies that have become WIG20 or WIG30 index participants through the extraordinary adjustment referred to in points 5.2.19 and 5.8.19 respectively, in the first 12 months after the introduction of the Company's shares to Exchange Trading.
  - 5.1.15. A Company in any of the following Indices: WIG20, mWIG40 or sWIG80, may not be at the same time a Participant of any other of these Indices.
  - 5.1.16. Based on the Ranking, a reserve list of Index Participants is developed, to supplement the list of Index Participants during the extraordinary adjustment.
  - 5.1.17. The reserve list shall be made public.
  - 5.1.18. The reserve list shall include at least 5 Companies.
  - 5.1.19. The weightings of the Companies put on the reserve list shall be determined based on the formulas applied for revision or adjustment.
- 5.2. Index of Large-Cap Companies WIG20
- 5.2.1. The WIG20 Index Portfolio includes weightings of 20 Participants. In exceptional cases, it is permissible that more or less than 20 Participants participate in the Index.
  - 5.2.2. The Index base date is 16 April 1994.
  - 5.2.3. The Index value on the base date is 1,000.00 points.
  - 5.2.4. The number of Index Participants classified into one sector, based on the applied Sector Classification, may not be higher than 5.
  - 5.2.5. The Index value is determined with dividend income excluded.
  - 5.2.6. When quoting the Company's shares for the first time "without subscription rights" with a Reference Price lower than the last Closing Price, the Company's weighting is not included in the first Session "without subscription rights" in the Index Portfolio. An announcement of an expected change in the Index Portfolio related to this operation may be made public a day before the date of the last quoting of the Company's shares with subscription rights. Information on performance of this operation is made public after the end of the Session during which the shares of this Company were last quoted with subscription rights.



- 5.2.7. The annual revision of the Index is conducted following the Session on the third Friday of March, based on the Ranking developed 4 weeks before the revision day, and its purpose is to make the necessary changes to the list of Index Participants and to determine new weightings for all Index Participants.
- 5.2.8. After the annual revision, the list of Index Participants shall include those Companies that ranked no lower than the 15th position in the Ranking, and those Companies that ranked lower than the 25th position are removed from the Index.
- 5.2.9. After the annual revision, the list of Index Participants shall also include those Companies that ranked highest between the 16th and the 25th position, provided that there are positions to be filled on the list of Index Participants and that the number of Participants dropped below 20.
- 5.2.10. When it follows from the rules on changing the list of Index Participants that the condition specified in point 5.2.4 will not be met, then a Company may be removed from the list of Index Participants only if the Company to be entered in the list of Participants ranks at least 5 positions higher in the Ranking than the Company to be removed from the list.
- 5.2.11. After the annual revision, the weightings of the Companies in the Index Portfolio are determined as of the Ranking Day.
- 5.2.12. The weighting of shares is reduced proportionally as of the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 15% of its value.
- 5.2.13. The quarterly adjustment is conducted following the Session on the third Friday of June, September and December, based on the Ranking developed 4 weeks before the adjustment day, and its purpose is to make the necessary changes to the list of Index Participants.
- 5.2.14. After the quarterly adjustment, the list of Index Participants shall include those Companies that ranked no lower than the 10th position in the Ranking, and those Companies that ranked lower than the 30th position are removed from the Index.
- 5.2.15. After the quarterly adjustment, the list of Index Participants shall also include those Companies that ranked highest between the 11th and the 30th position, provided that there are positions to be filled on the list of Index Participants and that the number of Participants dropped below 20.
- 5.2.16. When it follows from the rules on changing the list of Index Participants that the condition specified in point 5.2.4 will not be met, then a Company may be removed from the list of Index Participants only if the Company to be entered in the list of Participants ranks at least 5 positions higher in the Ranking than the Company to be removed from the list.
- 5.2.17. The weightings of the Companies in the Index Portfolio after the adjustment are determined as of the Ranking Day.
- 5.2.18. The weighting of shares is reduced proportionally as of the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 15% of its value.
- 5.2.19. The extraordinary 'fast track' adjustment of the list of Index Participants may be conducted to enter a Company which is new to the Exchange Trading to a list of Index Participants in the , provided that the value of its shares in free float on the date of the first quotation equals at least 5% of the value of capitalisation of the Index Portfolio at the Session that day.
- 5.2.20. In the event of extraordinary adjustment as a result of a new Company entering the Exchange Trading, the Company that was on the last position in the last Index Ranking is removed from the list of Index Participants.

- 5.2.21. The extraordinary adjustment of WIG20 shall result in the adjustment of the mWIG40 Index and the sWIG80 Index.
- 5.2.22. If the GPW decided to exclude the shares of a given Company from Exchange Trading at the request of KNF or BFG, the Administrator shall immediately remove the Company from the list of Index Participants of a given Index and enter the Company which was ranked highest in the last Index Ranking but was not included in this Index.
- 5.2.23. If Exchange Trading in shares of a given Company is suspended at the request of the KNF or BFG, an extraordinary adjustment of the list of Index Participants may be carried out by removing given Company from the list of Index Participants without replacing it another Company.
- 5.2.24. If, before the lapse of 10 Session Days from the suspension of Exchange Trading referred to in point 5.2.23, trading in the Company's shares removed from the list of Index Participants is resumed, the Company will be immediately re-entered in this list.
- 5.2.25. After 10 Session Days from the suspension of Exchange Trading referred to in point 5.2.23, the Company removed from the list of Index Participants is immediately replaced by the Company which was in the last Index Ranking in the highest position, but was not included in this Index.
- 5.2.26. The extraordinary adjustment referred to in point 5.2.25 shall result in adjustment of the mWIG40 Index and the sWIG80 Index.
- 5.2.27. In exceptional cases, an extraordinary adjustment of the list of Index Participants may be carried out to remove a Company from the list of WIG20 Index Participants.
- 5.2.28. If an extraordinary adjustment is made, the Company removed from the list of Index Participants is replaced by the Company that was ranked highest in the last Index Ranking but was not qualified for this Index.
- 5.2.29. The extraordinary adjustment of Index WIG20 shall result in adjustment of the mWIG40 Index and the sWIG80 Index.
- 5.3. GPW Index of Large-Cap Companies WIG20TR
  - 5.3.1. The Index Portfolio includes weightings of the Companies in WIG20.
  - 5.3.2. The Index base date is 31 December 2004.
  - 5.3.3. The Index value as of the base date is 1,960.57 points.
  - 5.3.4. The Index value is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and:  $M(t') = M(t) - D(t) - V(t) + Q(t)$

where:

$$V(i, t) = \frac{P(i, t) - P(i, em)}{S(i) + 1} * N(i)$$

D(t) – value of the dividend on equity or theoretical value of the dividend from the shares (calculated by the Exchange pursuant to the Detailed

Exchange Trading Rules) first quoted "without dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN

$V(t)$  – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"

$V(i,t)$  – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value  $V(i,t)$  is not calculated if the issue price  $P(i,em)$  is higher than the share price  $P(i,t)$

$Q(t)$  – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index

$P(i,t)$  – share price "i" at trading session "t"

$P(i,em)$  – price of the shares of new issue with subscription rights of the Company "i"

$S(i)$  – number of rights necessary to take up one share of new issue of the Company "i"

$N(i)$  – participation (number of shares) of the Company "i" in the Index portfolio.

5.3.5. The annual revision, the quarterly adjustment and the extraordinary adjustment of the list of Index Participants are carried out according to the rules specified for the WIG20.

#### 5.4. GPW Index of Mid-Cap Companies mWIG40

5.4.1. The Index Portfolio includes weightings of 40 Companies. In exceptional cases, it is permissible that more or less than 40 companies participate in the Index.

5.4.2. The Index base date is 31 December 1997.

5.4.3. The Index value as of the base date is 1,000.00 points.

5.4.4. The Index value is determined with dividend income excluded.

5.4.5. When quoting the Company's shares for the first time "without subscription rights" with a Reference Price lower than the last Closing Price, the Company's weighting is not included in the first Session "without subscription rights" in the Index Portfolio. An announcement of an expected change in the Index Portfolio related to this operation may be made public a day before the date of the last quoting of the Company's shares with subscription rights. Information on performance of this operation is made public after the end of the Session during which the shares of this Company were last quoted with subscription rights.

5.4.6. The list of Index Participants may not include those Companies whose registered office is outside the territory of the Republic of Poland, and quoted at the same time on the Regulated Market and other markets with the market value as of the Ranking Day above the median of market capitalization of Companies participating in the WIG20 Index. The median value is calculated on the basis of the market value of the WIG20 Companies in the last three months before the Ranking Day.

- 5.4.7. The annual revision of the Index is conducted following the Session on the third Friday of March, based on the Ranking developed 4 weeks before the revision day, and its purpose is to determine new weightings for all Index Participants.
- 5.4.8. After the annual revision, the list of Index Participants shall include those Companies that ranked no lower than the 50th position in the Ranking, and those Companies that ranked lower than the 70th position are removed from the Index.
- 5.4.9. After the annual revision, the list of Index Participants shall also include those Companies that ranked highest between the 51st and the 70th position, provided that there are positions to be filled on the list of Index Participants and that the number of Participants dropped below 40.
- 5.4.10. The weightings of the Companies in the Index Portfolio after the annual revision are determined as of the Ranking Day.
- 5.4.11. The weighting of shares is reduced proportionally as of the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
- 5.4.12. The quarterly adjustment is conducted following the Session on the third Friday of June, September and December, based on the Ranking developed 4 weeks before the adjustment day, and its purpose is to make the necessary changes to the list of Index Participants.
- 5.4.13. After the quarterly adjustment, the list of Index Participants shall include those Companies that ranked no lower than the 45th position in the Ranking, and those Companies that ranked lower than the 75th position are removed from the Index.
- 5.4.14. After the quarterly adjustment, the list of Index Participants shall also include those Companies that ranked highest between the 46th and the 75th position, provided that there are positions to be filled on the list of Index Participants and that the number of Participants dropped below 40.
- 5.4.15. The weightings of the Companies that become Index Participants after the adjustment are determined as of the Ranking Day.
- 5.4.16. The weighting of shares is reduced proportionally as of the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
- 5.4.17. If the GPW decided to exclude the shares of a given Company from Exchange Trading at the request of KNF or BFG, the Administrator shall immediately remove the Company from the list of Index Participants of a given Index and enter the Company which was ranked highest in the last Index Ranking but was not included in this Index.
- 5.4.18. If Exchange Trading in shares of a given Company is suspended at the request of the KNF or BFG, an extraordinary adjustment of the list of Index Participants may be carried out by removing given Company from the list of Index Participants without replacing it by another Company.

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- 5.4.19. If, before the lapse of 10 Session Days from the suspension of Exchange Trading referred to in point 5.4.18, trading in the Company's shares removed from the list of Index Participants is resumed, the Company will be immediately re-entered in this list.
- 5.4.20. After 10 Session Days from the suspension of Trading referred to in point 5.4.18 the Company removed from the list of Index Participants is immediately replaced by the Company from the reserve list of Index Participants.
- 5.4.21. The extraordinary adjustment referred to in point 5.4.20 shall result in adjustment of the SWIG80 Index.

- 5.4.22. In exceptional cases, an extraordinary adjustment may be carried out, consisting in removing the Company from the list of Index Participants.
- 5.4.23. If an extraordinary adjustment is made, the Company removed from the list of Index Participants is replaced by the Company that was ranked highest in the last Index Ranking but was not qualified for this Index.
- 5.4.24. The extraordinary adjustment of the mWIG40 shall result in adjustment of the SWIG80 Index.

5.5. GPW Index of Mid-Cap Companies MWIG40TR

- 5.5.1. The Index Portfolio includes weightings of the Companies in the mWIG40 Index.
- 5.5.2. The Index base date is 31 December 2009.
- 5.5.3. The Index value as of the base date is 2346.14 points.
- 5.5.4. The Index value is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and:  $M(t') = M(t) - D(t) - V(t) + Q(t)$

where:

$$V(i,t) = \frac{P(i,t) - P(i,em)}{S(i) + 1} * N(i)$$

- $V(t)$  – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"
- $V(i,t)$  – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value  $V(i,t)$  is not calculated if the issue price  $P(i,em)$  is higher than the share price  $P(i,t)$
- $Q(t)$  – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index
- $P(i,t)$  – share price "i" at trading session "t"
- $P(i,em)$  – price of the shares of new issue with subscription rights of the Company "i"
- $S(i)$  – number of rights necessary to take up one share of new issue of the Company "i"
- $N(i)$  – number of shares of the Company "i" in the Index portfolio.

- 5.5.5. The annual revision, the quarterly adjustment and the extraordinary adjustment of the list of Index Participants are carried out according to the rules specified for the mWIG40 Index.
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- 5.6. GPW Index of Small-Cap Companies sWIG80
    - 5.6.1. The Index Portfolio includes weightings of 80 Companies. In exceptional cases, it is permissible that more or less than 80 companies participate in the Index.
    - 5.6.2. The Index base date is 31 December 1994.
    - 5.6.3. The Index value as of the base date is 1,000.00 points.
    - 5.6.4. The Index value is determined with dividend income excluded.
    - 5.6.5. When quoting the Company's shares for the first time "without subscription rights" with a Reference Price lower than the last Closing Price, the Company's weighting is not included in the first Session "without subscription rights" in the Index Portfolio. An announcement of an expected change in the Index Portfolio related to this operation may be made public a day before the date of the last quoting of the Company's shares with subscription rights. Information on performance of this operation is made public after the end of the Session during which the shares of this Company were last quoted with subscription rights.
    - 5.6.6. The list of Index Participants may not include those Companies whose registered office is outside the territory of the Republic of Poland, and quoted at the same time on the Regulated Market and other markets with the market value as of the Ranking Day above the median of market capitalization of companies participating in the mWIG40 Index. The median value is calculated on the basis of the market value of the mWIG40 Index Companies in the last three months before the Ranking Day.
    - 5.6.7. The annual revision of the Index is conducted following the Session on the third Friday of March, based on the Ranking developed 4 weeks before the revision day, and its purpose is to determine new weightings for all Index Participants.
    - 5.6.8. After the annual revision, the list of Index Participants shall include those Companies that ranked no lower than the 120th position in the Ranking, and those Companies that ranked lower than the 150th position are removed from the Index.
    - 5.6.9. After the annual revision, the list of Index Participants shall also include those Companies that ranked highest between the 121st and the 150th position, provided that there are positions to be filled on the list of Index Participants and that the number of Participants dropped below 80.
    - 5.6.10. The weightings of the Companies in the Index Portfolio after the annual revision are determined as of the Ranking Day.
    - 5.6.11. The weighting of shares is reduced proportionally as of the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
    - 5.6.12. The quarterly adjustment is conducted following the Session on the third Friday of June, September and December, based on the Ranking developed 4 weeks before the adjustment day, and its purpose is to make the necessary changes to the list of Index Participants.
    - 5.6.13. After the quarterly adjustment, the list of Index Participants shall include those Companies that ranked no lower than the 110th position in the Ranking, and those Companies that ranked lower than the 160th position are removed from the Index.

- 5.6.14. After the quarterly adjustment, the list of Index Participants shall also include those Companies that ranked highest between the 111th and the 160th position, provided that there are positions to be filled on the list of Index Participants and that the number of Participants dropped below 80.
  - 5.6.15. The weightings of the Companies that become Index Participants after the adjustment are determined as of the Ranking Day.
  - 5.6.16. The weighting of shares is reduced proportionally as of the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
  - 5.6.17. If the GPW decided to exclude the shares of a given Company from Exchange Trading at the request of KNF or BFG, the Administrator shall immediately remove the Company from the list of Index Participants of a given Index and enter the Company which was ranked highest in the last Index Ranking but was not included in this Index.
  - 5.6.18. If Exchange Trading in shares of a given Company is suspended at the request of the KNF, an extraordinary adjustment of the list of Index Participants may be carried out by removing given Company from the list of Index Participants without replacing it by another Company
  - 5.6.19. If, before the lapse of 10 Session Days from the suspension of Trading referred to in point 5.6.18, trading in the Company's shares removed from the list of Index Participants is resumed, the Company will be immediately re-entered in this list.
  - 5.6.20. After 10 Session Days from the suspension of Trading referred to in point 5.6.18 the Company removed from the list of Index Participants is immediately replaced by the Company from the reserve list of Index Participants.
  - 5.6.21. In exceptional cases, an extraordinary adjustment may be carried out by removing the Company from the list of Index Participants.
  - 5.6.22. If an extraordinary adjustment is made, the Company removed from the list of Index Participants is replaced by the Company that was ranked highest in the last Index Ranking but was not qualified for this Index.
- 5.7. GPW Index of Small-Cap Companies SWIG80TR
- 5.7.1. The Index Portfolio includes weightings of the Companies in the sWIG80 Index.
  - 5.7.2. The Index base date is 31 December 2009.
  - 5.7.3. The Index value as of the base date is 11,090.93 points.
  - 5.7.4. The Index value is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and:  $M(t') = M(t) - D(t) - V(t) + Q(t)$

where:

$$V(i,t) = \frac{P(i,t) - P(i,em)}{S(i) + 1} * N(i)$$

D(t) – value of the dividend on equity or theoretical value of the dividend from the shares (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules in the UTP System) first quoted "without



dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN

$V(t)$  – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"

$V(i,t)$  – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value  $V(i,t)$  is not calculated if the issue price  $P(i,em)$  is higher than the share price  $P(i,t)$

$Q(t)$  – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index

$P(i,t)$  – share price "i" at trading session "t"

$P(i,em)$  – price of the shares of new issue with subscription rights of the Company "i"

$S(i)$  – number of rights necessary to take up one share of new issue of the Company "i"

$N(i)$  – number of shares of the Company "i" in the Index portfolio.

5.7.5. The annual revision, the quarterly adjustment and the extraordinary adjustment of the list of Index Participants are carried out according to the rules specified for the SWIG80.

## 5.8. WIG30 Index

5.8.1. The Index Portfolio includes weightings of 30 Companies. In exceptional cases, it is permissible that more or less than 30 companies participate in the Index.

5.8.2. The Index base date is 31 December 2012.

5.8.3. The Index value as of the base date is 2,582.98 points.

5.8.4. The number of Index Participants classified into one sector of economic activity, based on the applied Sector Classification, may not be higher than 7.

5.8.5. The Index value is determined with dividend income excluded.

5.8.6. When quoting the Company's shares for the first time "without subscription rights" with a Reference Price lower than the last Closing Price, the Company's weighting is not included in the first Session "without subscription rights" in the Index Portfolio. An announcement of an expected change in the Index Portfolio related to this operation may be made public a day before the date of the last quoting of the Company's shares with subscription rights. Information on performance of this operation is made public after the end of the Session during which the shares of this Company were last quoted with subscription rights.

5.8.7. The annual revision of the Index is conducted following the Session on the third Friday of March, based on the Ranking developed 4 weeks before the revision day, and its purpose is to make the necessary changes to the list of Index Participants and to determine new weightings for all Index Participants.



- 5.8.8. After the annual revision, the list of Index Participants shall include those Companies that ranked no lower than the 20th position in the Ranking, and those Companies that ranked lower than the 40th position are removed from the Index.
- 5.8.9. After the annual revision, the list of Index Participants shall also include those Companies that ranked highest between the 21st and the 40th position, provided that there are positions to be filled on the list of Index Participants and that the number of Participants dropped below 30.
- 5.8.10. When it follows from the rules on changing the list of Index Participants that the condition specified in point 5.8.4 will not be met, then a Company may be removed from the list of Index Participants only if the Company to be entered in the list of Participants ranks at least 5 positions higher in the Ranking than the Company to be removed from the list.
- 5.8.11. The weightings of the Companies in the Index Portfolio after the annual revision are determined as of the Ranking Day.
- 5.8.12. The weighting of shares is reduced proportionally as of the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
- 5.8.13. The quarterly adjustment is conducted following the Session on the third Friday of June, September and December, based on the Ranking developed 4 weeks before the adjustment day, and its purpose is to make the necessary changes to the list of Index Participants.
- 5.8.14. After the quarterly adjustment, the list of Index Participants shall include those Companies that ranked no lower than the 15th in the Ranking, and those Companies that ranked lower than the 45th position are removed from the Index.
- 5.8.15. After the quarterly adjustment, the list of Index Participants shall also include those Companies that ranked highest between the 16th and the 45th position, provided that there are positions to be filled on the list of Index Participants and that the number of Participants dropped below 30.
- 5.8.16. When it follows from the rules on changing the list of Index Participants that the condition specified in point 5.8.4 will not be met, then a Company may be removed from the list of Index Participants only if the Company to be entered in the list of Participants ranks at least 5 positions higher in the Ranking than the Company to be removed from the list.
- 5.8.17. The weightings of the Companies that become Index Participants after the adjustment are determined as of the Ranking Day.
- 5.8.18. The weighting of shares is reduced proportionally as of the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
- 5.8.19. The extraordinary 'fast track' adjustment of the list of Index Participants may be conducted to enter a Company which is new to the Exchange Trading to a list of Index Participants, provided that the value of its shares in free float on the date of the first quotation equals at least 5% of the value of capitalisation of the Index Portfolio at the Session on that day.
- 5.8.20. In the event of extraordinary adjustment as a result of a new Company entering the Exchange Trading, the Company that was on the last position in the last Index Ranking is removed from the list of Index Participants.
- 5.8.21. In exceptional cases, an extraordinary adjustment may be carried out by removing the Company from the list of Index Participants.

- 5.8.22. If an extraordinary adjustment is made, the Company removed from the list of Index Participants is replaced by the Company that was ranked highest in the last Index Ranking but was not qualified for this Index.

5.9. WIG30TR Index

- 5.9.1. The Index Portfolio includes weightings of the Companies in the WIG30 Index.
- 5.9.2. The Index base date is 31 December 2012.
- 5.9.3. The Index value as of the base date is 3,729.44 points.
- 5.9.4. The Index value is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and:  $M(t') = M(t) - D(t) - V(t) + Q(t)$

where:

$$V(i,t) = \frac{P(i,t) - P(i,em)}{S(i) + 1}$$

$D(t)$  – value of the dividend on equity or theoretical value of the dividend from the shares (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules) first quoted "without dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN

$V(t)$  – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"

$V(i,t)$  – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value  $V(i,t)$  is not calculated if the issue price  $P(i,em)$  is higher than the share price  $P(i,t)$

$Q(t)$  – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index

$P(i,t)$  – share price "i" at trading session "t"

$P(i,em)$  – price of the shares of new issue with subscription rights of the Company "i"

$S(i)$  – number of rights necessary to take up one share of new issue of the Company "i"

$N(i)$  – number of shares of the Company "i" in the Index portfolio.

- 5.9.5. The annual revision, the quarterly adjustment and the extraordinary adjustment of the list of Index Participants are carried out according to the rules specified for the WIG30 Index.

## 6. DETAILED PRINCIPLES OF CONSTRUCTION OF THE WIG INDEX, NATIONAL INDICES AND SUBSECTOR INDICES

### 6.1. WIG Index

- 6.1.1. The Index Portfolio includes weightings of the Companies listed on the Regulated Market.
- 6.1.2. The Index base date is 16 April 1991.
- 6.1.3. The Index value as of the base date is 1,000.00 points.
- 6.1.4. The Index value is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{Mt'}{M(t)} * K(t)$$

and:  $M(t') = M(t) - D(t) - V(t) + Q(t)$

where:

$$V(i,t) = \frac{P(i,t) - P(i,em)}{S(i) + 1} * N(i)$$

- D(t) – value of the dividend on equity or theoretical value of the dividend from the shares (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules in the UTP System) first quoted "without dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN
- V(t) – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"
- V(i,t) – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value V(i,t) is not calculated if the issue price P(i,em) is higher than the share price P(i,t)
- Q(t) – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index
- P(i,t) – share price "i" at trading session "t"
- P(i,em) – price of the shares of new issue with subscription rights of the Company "i"
- S(i) – number of rights necessary to take up one share of new issue of the Company "i"
- N(i) – number of shares of the Company "i" in the Index portfolio.

- 6.1.5. After the Session of the third Friday of March, June, September and December, a quarterly revision of the Index Portfolio is carried out, which is aimed at determining new weightings of shares.

- 6.1.6. The weightings of the Companies in the Index Portfolio are determined as at the end of February, May, August and November.
- 6.1.7. The weighting of shares is reduced proportionally during the revision if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value or if the value of the weightings in the Index Portfolio of the Participants classified into one sector, based on the Sector Classification, exceeds 30% of its value.
- 6.1.8. In exceptional cases, an extraordinary adjustment may be carried out, consisting in removing the Company from the list of Index Participants.
- 6.1.9. An extraordinary adjustment of the list of Index Participants may be carried out when a Company is introduced to Exchange Trading for the first time (debut).
- 6.1.10. The shares of the Company making its debut enter the list of Index Participants after three Sessions following the debut.
- 6.1.11. The weighting of the Company making its debut in the Index Portfolio is determined based on the rules of the quarterly revision of the Index Portfolio.
- 6.2. National Indices
  - 6.2.1. The National Indices include weightings of the Companies listed on the Regulated Market.
  - 6.2.2. When assessing the status of a given Company, the Administrator shall take into account the country in which the registered office or the main office of the Company is located, the country in which the Company or its subsidiaries conduct their activity to the largest extent, and the country in which the Company's initial public offering was carried out. When assessing the status of the Company, the Administrator may consult with the Index Committee.
  - 6.2.3. The base dates of the National Indices are:
    - a) 16 April 1991 for WIG-Poland,
    - b) 31 December 2010 for WIG-Ukraine.
  - 6.2.4. The base values of the National Indices are:
    - a) 1,000.00 points for WIG-Poland,
    - b) 1,000.00 points for WIG-Ukraine.
  - 6.2.5. The value of the National Index is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t = 1) = \frac{M(t')}{M(t)} * K(t)$$

and:  $M(t') = M(t) - D(t) - V(t) + Q(t)$

where:

$$V(i, t) = \frac{P(i, t) - P(i, em)}{S(i) + 1} * N(i)$$

D(t) – value of the dividend on equity or theoretical value of the dividend from the shares (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules in the UTP System) first quoted "without

dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN

- V(t) – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"
- V(i,t) – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value V(i,t) is not calculated if the issue price P(i,em) is higher than the share price P(i,t).
- Q(t) – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index
- P(i,t) – share price "i" at trading session "t"
- P(i,em) – price of the shares of new issue with subscription rights of the Company "i"
- S(i) – number of rights necessary to take up one share of new issue of the Company "i"
- N(i) – number of shares of the Company "i" in the Index portfolio.

- 6.2.6. After the Session of the third Friday of March, June, September and December, a quarterly revision of the National Index Portfolio is carried out, aimed at determining new weightings of shares.
- 6.2.7. The weightings of the Companies in the National Index Portfolio are determined as at the end of February, May, August and November.
- 6.2.8. The weighting of shares of the Company in the Index is reduced proportionally during the revision:
  - a) for WIG-Poland, if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value or if the value of the weightings in the Index Portfolio of the Participants classified into one sector, based on the Sector Classification, exceeds 30% of its value;
  - b) for WIG-Ukraine, if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value. If the number of Companies in the WIG-Ukraine Index is lower than 20, the weighting of shares of a given Company is reduced proportionally during the revision if the value of shares of such Company in the Index Portfolio exceeds 40% of its value.
- 6.2.9. In exceptional cases, an extraordinary adjustment may be carried out, consisting in removing the Company from the list of Index Participants.
- 6.2.10. An extraordinary adjustment of the list of Index Participants may be carried out when a Company is introduced to Exchange Trading for the first time (debut).
- 6.2.11. The shares of a Company making its debut in Exchange Trading enter the list of Index Participants after three Sessions following the debut.
- 6.2.12. The weighting of the Company making its debut in the Index Portfolio is determined based on the rules of the quarterly revision of the Index Portfolio.

### 6.3. Subsector Indices

6.3.1. The Portfolios of Subsector Indices include the Companies present in the WIG Index that have been classified into a relevant sector based on the Sector Classification.

6.3.2. The base dates of the Subsector Indices are:

- a) 31 December 1998 for WIG - food,
- b) 31 December 1998 for WIG - banking,
- c) 31 December 1998 for WIG - construction,
- d) 31 December 1998 for WIG - IT,
- e) 31 December 2004 for WIG - media,
- f) 30 December 2005 for WIG - oil and gas,
- g) 15 June 2007 for WIG - real estate,
- h) 19 September 2008 for WIG - chemical,
- i) 31 December 2009 for WIG - energy,
- j) 31 December 2010 for WIG - mining,
- k) 31 December 2016 for WIG - clothes,
- l) 31 December 2016 for WIG - pharmaceuticals,
- m) 31 December 2016 for WIG - automobiles and parts.

6.3.3. The base values of the Subsector Indices are:

- a) 1,279.56 for WIG - food,
- b) 1,279.56 for WIG - banking,
- c) 1,279.56 for WIG - construction,
- d) 1,279.56 for WIG - IT,
- e) 2,663.62 for WIG - media,
- f) 3,560.08 for WIG - oil and gas,
- g) 6,543.82 for WIG - real estate,
- h) 3,836.10 for WIG - chemical,
- i) 3,998.60 for WIG - energy,
- j) 4,748.99 for WIG - mining,
- k) 5,175.40 for WIG - clothes,
- l) 5,175.40 for WIG - pharmaceuticals,
- m) 5,175.40 for WIG - automobiles and parts.

6.3.4. The value of the Subsector Index is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and:  $M(t') = M(t) - D(t) - V(t) + Q(t)$

where:

$$V(i, t) = \frac{P(i, t) - P(i, em)}{S(i) + 1} * N(i)$$

$D(t)$  – value of the dividend on equity or theoretical value of the dividend from the shares (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules in the UTP System) first quoted "without dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN

$V(t)$  – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"

$V(i, t)$  – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value  $V(i, t)$  is not calculated if the issue price  $P(i, em)$  is higher than the share price  $P(i, t)$ .

$Q(t)$  – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index

$P(i, t)$  – share price "i" at trading session "t"

$P(i, em)$  – price of the shares of new issue with subscription rights of the Company "i"

$S(i)$  – number of rights necessary to take up one share of new issue of the Company "i"

$N(i)$  – number of shares of the Company "i" in the Index portfolio.

6.3.5. After the Session of the third Friday of March, June, September and December, a quarterly revision of the Subsector Index Portfolio is carried out, aimed at determining new weightings of shares.

6.3.6. The weightings of the Companies in the Subsector Index Portfolio are the same as the weightings in the WIG Portfolio.

6.3.7. In exceptional cases, an extraordinary adjustment may be carried out, consisting in removing the Company from the list of Index Participants.

6.3.8. An extraordinary adjustment of the list of Subsector Index Participants may be carried out when a Company is introduced to Exchange Trading for the first time (debut).

6.3.9. The shares of the Company making its debut in Exchange Trading enter the list of Subsector Index Participants after three Sessions following the debut.

6.3.10. The weighting of the Company making its debut in the Subsector Index Portfolio is determined based on the rules of the quarterly revision of the Index Portfolio.

## 7. DETAILED PRINCIPLES OF CONSTRUCTION, DETERMINATION AND PUBLICATION OF WIG20short, WIG20lev, WIG20dvp, mWIG40dvp AND sWIG80dvp INDICES

### 7.1. WIG20short

- 7.1.1. WIG20short is an index inverse to WIG20, determined based on the values of the WIG20 and WIBOR O/N rate.
- 7.1.2. The Index base date is 31 December 2005.
- 7.1.3. The Index value on the base date is 2,654.95 points.
- 7.1.4. The WIG20short value is calculated using the following formula:

$$WIG20short_t = WIG20short_T \cdot \left( -1 \cdot \frac{WIG20_t}{WIG20_T} + 2 \right) + 2 \cdot WIG20short_T \cdot \left( \frac{R}{360} \right) \cdot d$$

$WIG20short_t$  – the current value of the WIG20short index

$WIG20short_T$  – the last closing value of the WIG20short index

$WIG20_t$  – the current value of the WIG20 index

$WIG20_T$  – the last closing value of the WIG20 index

R – WIBOR O/N rate

d – number of calendar days between t and T.

- 7.1.5. WIG20short index values are published in accordance with the WIG20 schedule.

### 7.2. WIG20lev

- 7.2.1. The calculation of WIG20lev takes into account the financial leverage for the WIG20 index. Its values are calculated based on the WIG20 index values and on the WIBOR O/N rate.
- 7.2.2. The Index base date is 31 December 2005.
- 7.2.3. The Index value on the base date is 2,654.95 points.
- 7.2.4. The WIG20lev value is calculated using the following formula:

$$WIG20lev_t = WIG20lev_T \cdot \left( 2 \cdot \frac{WIG20_t}{WIG20_T} - 1 \right) - WIG20lev_T \cdot \left( \frac{R}{360} \right) \cdot d$$

$WIG20lev_t$  – the current value of the WIG20lev index

$WIG20lev_T$  – the last closing value of the WIG20lev index

$WIG20_t$  – the current value of the WIG20 index

$WIG20_T$  – the last closing value of the WIG20 index

R – WIBOR O/N rate

d – number of calendar days between t and T.

- 7.2.5. WIG20lev index values are published in accordance with the WIG20 schedule.

### 7.3. WIG20dvp

- 7.3.1. WIG20dvp index is calculated on the basis of equity income i.e. cash dividends paid by Companies constituting the WIG20 index, including:
  - a) advance cash payments towards expected dividend,



- b) dividends conditional on a future uncertain event but only if the Trading Day when the stock is quoted with a designation "without dividend rights" is later than the date on which the conditions for the payment of such dividend are fulfilled.

7.3.2. Weightings of Companies in the WIG20 index determined for the WIG20 index portfolio are used in the calculation of WIG20dvp.

7.3.3. The base date of this Index is 02 January 2007.

7.3.4. The WIG20dvp value is calculated using the following formula:

- a) on the first Trading Day following the third Friday of December each calendar year:

if $t < d$	$WIG20dvp(d) = 0$
if $t = d$	$WIG20dvp(d) = \frac{P(t) \times D(t)}{M(0) \times K(t)} \times 1000$

- b) on the remaining Trading Days:

if $t < d$	$WIG20dvp(d) = WIG20dvp(d-1)$
if $t = d$	$WIG20dvp(d) = \frac{P(t) \times D(t)}{M(0) \times K(t)} \times 1000 + WIGdvp(d-1)$

where:

- d – the day of calculation of the WIG20dvp index,
- t – the Trading Day on which the shares participating in WIG20 are quoted with a designation "without dividend rights" for the first time,
- WIG20dvp (d) – the dividend index value determined at trading session on day "d",
- WIG20dvp (d-1) – the dividend index value determined at trading session on day "d-1" (the previous Trading Session),
- M(0) – base capitalisation of the WIG20 index,
- K(t) – adjustment coefficient for the WIG20 index determined at trading session "t",
- D(t) – value of the dividend on equity or theoretical value of the dividend (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules in the UTP System) first quoted "without dividend rights" at trading session "t"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN,
- P(t) – number of shares (weighting) of a given company in the WIG20 index determined at trading session "t".

- 7.3.5. WIG20dvp index is published on a discontinuous basis with publication of the opening value at 11:00 a.m. of each Session Day.
- 7.3.6. Following the closing of the Session the final opening and closing values of the Index are published, as well as indicators containing the daily statistics.

7.4. mWIG40dvp

- 7.4.1. mWIG40dvp index is calculated on the basis of equity income i.e. cash dividends paid by Companies constituting the mWIG40 index, including:

- a) advance cash payments towards expected dividend,
- b) dividends conditional on a future uncertain event but only if the Trading Day when the stock is quoted "without dividend rights" is later than the date on which the conditions for the payment of such dividend are fulfilled.

- 7.4.2. Weightings of Companies in the mWIG40 index determined for the mWIG40 index portfolio are used in the calculation of mWIG40dvp.

- 7.4.3. The base date of this Index is 02 January 2007.

- 7.4.4. The mWIG40dvp value is calculated using the following formula:

- a) on the first Trading Day following the third Friday of December each calendar year:

if $t < d$	$mWIG40dvp(d) = 0$
if $t = d$	$mWIG40dvp(d) = \frac{P(t) \times D(t)}{M(0) \times K(t)} \times 1000$

- b) on the remaining Trading Days:

if $t < d$	$mWIG40dvp(d) = mWIG40dvp(d-1)$
if $t = d$	$mWIG40dvp(d) = \frac{P(t) \times D(t)}{M(0) \times K(t)} \times 1000 + mWIG40dvp(d-1)$

where:

- d – the day of calculation of the mWIG40dvp index,
- t – the Trading Day on which the shares in the mWIG40 index are quoted with a designation "without dividend rights" for the first time,
- mWIG40dvp (d) – the dividend index value determined at trading session on day "d",
- mWIG40dvp (d-1) – the dividend index value determined at trading session on day "d-1" (the previous Trading Session),
- M(0) – base capitalisation of mWIG40,
- K(t) – adjustment coefficient for mWIG40 determined at trading session "t",
- D(t) – value of the dividend on equity or theoretical value of the dividend (calculated by the Exchange pursuant to the Detailed

Exchange Trading Rules in the UTP System) first quoted "without dividend rights" at trading session "t"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN,

$P(t)$  – The number of shares (weighting) of a given company in the mWIG40 index determined at trading session "t".

7.4.5. The mWIG40dvp index is published on a discontinuous basis with publication of the opening value at 11:00 a.m. of each Session Day.

7.4.6. Following the closing of the Session the final opening and closing values of the Index are published, as well as indicators containing the daily statistics.

## 7.5. sWIG80dvp

7.5.1. The sWIG80dvp value is calculated on the basis of equity income i.e. cash dividends paid by the Companies in the sWIG80 index, including:

- advance cash payments towards expected dividend,
- dividends whose payment is conditional on a future uncertain event but only if the Trading Day on which the stock is quoted "without dividend rights" is later than the date on which the conditions for the payment of dividend are fulfilled.

7.5.2. Weightings of Companies in the sWIG80 index determined for the sWIG80 index portfolio are used in the calculation of sWIG80dvp.

7.5.3. The base date of this Index is 02 January 2007.

7.5.4. The sWIG80dvp value is calculated using the following formula:

- on the first Trading Day following the third Friday of December each calendar year:

if $t < d$	sWIG80dvp (d) = 0
if $t = d$	$sWIG80dvp(d) = \frac{P(t) \times D(t)}{M(0) \times K(t)} \times 1000$

- on the remaining Trading Days:

if $t < d$	sWIG80dvp (d) = sWIG80dvp (d-1)
if $t = d$	$sWIG80dvp(d) = \frac{P(t) \times D(t)}{M(0) \times K(t)} \times 1000 + sWIG80dvp(d - 1)$

where:

- d – the day of calculation of the sWIG80dvp index,
- t – the Trading Day on which the shares in sWIG80 index are quoted with a designation "without dividend rights" for the first time,
- sWIG80dvp (d) – the dividend index value determined at trading session on day "d",

sWIG80dvp (d-1) – the dividend index value determined at trading session on day "d-1" (the previous Trading Session),

M(0) – base capitalisation of the sWIG80 index,

K(t) – adjustment coefficient for the sWIG80 index determined at trading session on day "t",

D(t) – value of the dividend from the shares or theoretical value of the dividend from the shares (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules in the UTP System) first quoted "without dividend rights" at trading session "t"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN,

P(t) – number of shares of companies in the sWIG80 index determined on "t" trading session day.

7.5.5. The sWIG80dvp index is published in a uniform manner with publication of the opening value at 11:00 a.m. of each Session Day.

7.5.6. Following the closing of the Session the final opening and closing values of the Index are published, as well as statistical indicators containing the daily statistics.

## 8. DETAILED PRINCIPLES OF CONSTRUCTION AND PUBLICATION OF THE WIG-ESG

- 8.1. Description of the market to be measured by the WIG-ESG Index
  - 8.1.1. The objective of the Index is to measure the value of a portfolio of the Listed Companies classified for the WIG20 and mWIG40 Indices, verified using an adjustment factor, i.e. assessment of the degree of compliance with the environmental, social, economic and corporate governance principles (ESG – Environmental, Social, Governance).
  - 8.1.2. WIG-ESG is a total return index, covering income from dividends and subscription rights, paid out on shares in the Index Portfolio.
  - 8.1.3. The base date of this Index is 31 December 2018.
- 8.2. Classification rules for Index Participants
  - 8.2.1. WIG-ESG Index Participants are Companies listed on the GPW regulated market, which are the Participants in WIG20 and mWIG40, as at the end of January, April, July and October of a given year.
  - 8.2.2. The weighting of individual Participants in the WIG-ESG Index portfolio is determined on the basis of the Index Rankings described in Section 8.3.
  - 8.2.3. On its website, the Administrator publishes a list of Index Participants, including the weightings and the information about planned changes in the composition of WIG-ESG.
- 8.3. Index rankings: ESG Ranking and Best Practice Ranking
  - 8.3.1. The ESG ranking is developed based on the results of ESG analyses and data contained in ESG Risk Rating Reports developed by an independent research agency *Sustainalytics B.V.* with registered seat in the Netherlands ("ESG Risk Rating Reports"). The rules for developing ESG Risk Rating Reports are specified in the documentation available at Sustainalytics' website.
  - 8.3.2. The provisional ESG Ranking is developed four times a year by the Administrator, after the last Session of January, April, July and October, based on the score obtained by the Index Participants in the ESG Risk Rating Reports (*scoring*).
  - 8.3.3. The Companies can obtain a score from 0 to 100 points in the ESG Ranking, where the lower the awarded score, the better the Company complies with the environmental, social and corporate governance principles. Depending on the score obtained, the Companies in the Ranking are divided into five separate groups ("quintile groups").
  - 8.3.4. As part of quarterly revisions, the qualification to quintile groups is consistent with the scores obtained by Index Participants in ESG Risk Rating Reports specified in 8.3.2 and is subject to verification through comparison of the current qualification to the quintile group with the qualification in the previous ESG Ranking.
  - 8.3.5. In the event that the qualification of a given Company to the quintile group in the preliminary Ranking differs significantly from the qualifications of the previous Ranking, and the scoring changes due to the change in the methodology of the ESG Reports, the "smoothing" mechanism is applied to movements quintile groups within the ESG Ranking. As part of this mechanism, a shift can only be made between adjacent quintile groups in a given quarterly revision.
  - 8.3.6. The "smoothing" mechanism described in section 8.3.5 applies during subsequent quarterly revisions until reaching the target quintile group. The adjustment is to ensure the stability of the ESG Ranking.

- 8.3.7. Regardless of the applied mechanism as described in 8.3.5-8.3.6, the qualification of the Company to the quintile group depends on the assessment of the degree of compliance with ESG principles by the given Company.
  - 8.3.8. In doubtful cases, the Administrator may seek the opinion of its Index Committee or the Oversight Committee for Capital Market Benchmarks.
  - 8.3.9. The final ESG Ranking for each quarterly revision, developed according to the rules specified in 8.3.4-8.3.8, takes into account the state as of the last Session in February, May, August and November.
  - 8.3.10. The Best Practice Ranking is prepared based on data provided by the WSE, resulting from the analysis of the application of the corporate governance rules set out in the document "Best Practice for GPW Listed Companies 2021" ("Best Practice") based on the information from Companies prepared pursuant to § 29(3) of the Warsaw Stock Exchange Rules and declarations on the application of corporate governance principles included in the annual reports of the Companies.
  - 8.3.11. Best Practice Ranking is drawn up once a year after the last Session of July, on the basis of the data specified in point 8.3.10 as of the end of July each year. Companies are subsequently classified into one of four categories according to the following rules:
    - (a) first category: failure by a Company to comply with a maximum of 3 principles of Best Practice, however, the principles not complied with must not include any of the principles listed in subparagraph (c);
    - (b) second category: failure by a Company to comply with 4 to 6 principles of Best Practice, however, the principles not complied with must not include any of the principles listed in subparagraph (c);
    - (c) third category: failure by a Company to comply with more than 6 principles of Best Practice or failure to comply with any of the principles specified in Section 1.1, 1.2, 1.3, 1.6, 1.7, 2.3, 2.11, 3.9, 4.6, 4.13, 5.3, 5.4, 6.2. of Best Practice;
    - (d) fourth category: irrespective of the number of detailed principles of Best Practice that are not complied with if the Company's statement on the application of corporate governance contained in the annual report is inconsistent with the declarations submitted in reports prepared pursuant to § 29(3) of the Warsaw Stock Exchange Rules, or if the information provided in these reports is factually inaccurate.
- 8.4. Share of the Companies in the Index Portfolio
- 8.4.1. The Company's weighting in the WIG-ESG Portfolio is composed of the entire equity in free float, in a quantity not greater than the number of shares admitted to Exchange Trading, rounded to the nearest thousand. The equity in free float is determined according to the provisions of the Rules on determining the equity in free float.
  - 8.4.2. For the quarterly revisions, the number of free float shares necessary to determine weightings specified in 8.4.1 are determined accordingly to the state after the last Session in February, May, August and November.
  - 8.4.3. The weighting of a single Company in the WIG-ESG Index Portfolio is limited in two steps. In the first step: depending on the Company's position in the ESG Ranking and in the second step: based on a classification in a specific category in the Best Practices Ranking according to the following principles:
    - (a) for the ESG Ranking:
      - the weighting of the Companies from the second quintile group is limited by 10%,

- the weighting of the Companies from the third quintile group is limited by 20%,
- the weighting of the Companies from the fourth quintile group is limited by 30%,
- the weighting of the Companies from the fifth quintile group is limited by 40%;

(b) for the Best Practices Ranking:

- the weighting of the Companies from the second category is limited by 5%,
- the weighting of the Companies from the third category is limited by 10%,
- the weighting of the Companies from the fourth category is limited by 15%.

8.4.4. The weighting of a single Company's shares in the WIG-ESG Index portfolio is additionally limited to a maximum of 10%.

8.4.5. The total weighting in the Portfolio of the Companies whose individual weightings each exceed 5% is limited to 40% of the Portfolio.

8.4.6. The reduction of the number of shares, the weighting of which in WIG-ESG exceeds the values indicated in Section 8.4.3. and 8.4.4., is carried out as part of the quarterly revision.

8.4.7. When determining the weightings of Companies in WIG-ESG Portfolio, no restrictions by sector of economic activity apply.

8.4.8. Should the nominal value of shares change, the weighting and the price of the Company's shares in the WIG-ESG Portfolio are automatically changed.

8.5. Rules for determining and publishing the Index values

8.5.1. The formula for calculating WIG-ESG is as follows:

$$WIG - ESG(t) = \frac{M(t)}{M(0) \times K(t)}$$

where:

M (t) – capitalisation of the WIG-ESG index portfolio at trading session "t"

M (0) – capitalisation of the WIG-ESG index portfolio on base date on 31 December 2018

K (t) – value of the adjustment coefficient at trading session "t"

8.5.2. The adjustment coefficient K (t) is aimed at maintaining the continuity of the WIG-ESG value during the quarterly revision or extraordinary adjustment based on the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and:

$$M(t') = M(t) - V(t) + Q(t)$$

where:

$$V(i, t) = \frac{P(i, t) - P(i, em)}{S(i) + 1} * N(i)$$

D(t) – value of the equity dividend or theoretical value of the dividend (calculated pursuant to the GPW Detailed Exchange Trading Rules) first quoted "without dividend rights" at trading session "t+1"

$V(t)$  – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session " $t+1$ "

$V(i,t)$  – theoretical value of subscription rights to shares " $i$ " first quoted "without subscription rights" at trading session " $t+1$ "; the theoretical value  $V(i,t)$  is not calculated if the issue price  $P(i,em)$  is higher than the share price  $P(i,t)$

$Q(t)$  – market value of the shares to be admitted (+) or excluded (-) from the WIG-ESG index portfolio after the trading session " $t$ "; this applies to both increasing the weightings of the companies previously participating in the WIG-ESG index, as well as the weightings of the companies not yet participating in the WIG-ESG index

$P(i,t)$  – share price " $i$ " at trading session " $t$ "

" $t$ "  $P(i,em)$  – price of the shares of new issue with subscription rights of the company " $i$ "

$S(i)$  – number of rights necessary to take up one share of new issue of the company " $i$ "

$N(i)$  – number of shares of the company " $i$ " in the Index Portfolio.

8.5.3. WIG-ESG values are given in points with accuracy to 0.01 point.

8.5.4. The publication of the WIG-ESG Index value is made in accordance with the general rules for the GPW Indices Family, as specified in Section 4.3.

#### 8.6. Periodic and extraordinary changes

8.6.1. The quarterly revision of Portfolio Index is carried out after Session of the third Friday in March, September and December.

8.6.2. The quarterly revisions are carried out on the basis of the ESG Ranking and the Best Practices Ranking, subject to the selection criteria and principles of construction of the WIG-ESG Index and dates specified in 8.3.7 and 8.4.2.

8.6.3. Information on the quarterly revisions are published at least one week in advance.

8.6.4. Information on the quarterly revision of the Index also includes a reserve list of Index Participants, which is used to supplement the list of Index Participants during an extraordinary adjustment. The reserve list consists of at least 5 companies.

8.6.5. The extraordinary adjustment involves removing the Company from the list of Index Participants and to supplement it with another Company from the reserve list. Extraordinary adjustment is carried out if:

(a) the shares of a given Company are delisted from trading on the GPW regulated market,

(b) significant events that adversely affect the assessment of compliance with environmental, social and corporate governance principles occur in the Company,

(c) other significant circumstances threatening the safety of trading and the interests of its participants occur.

8.6.6. The numbers of shares (weightings) in the WIG-ESG Index portfolio after the quarterly revision or extraordinary adjustment are rounded to the nearest thousand.



## 9. DETAILED PRINCIPLES FOR THE CONSTRUCTION OF THE WARSAW STOCK EXCHANGE INDEX OF DIVIDEND COMPANIES WIGdiv

### 9.1. Warsaw Stock Exchange Index of Dividend Companies WIGdiv

- 9.1.1. The Index participants are the Companies with the highest dividend yield this year that have regularly paid dividend over the past five financial years.
- 9.1.2. The Index Portfolio may include the weightings of the Companies qualified for the WIG20, mWIG40 or sWIG80 Portfolios.
- 9.1.3. The Index base date is 31 December 2010.
- 9.1.4. The Index value on the base date is 1.000,00 points.
- 9.1.5. The WIGdiv value is determined taking into account the equity income, in particular from dividends and subscription rights (total return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and:

$$M(t') = M(t) - V(t) + Q(t)$$

where:

$$V(i, t) = \frac{P(i, t) - P(i, em)}{S(i) + 1} * N(i)$$

D(t) – value of the equity dividend or theoretical value of the dividend (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules in the UTP System) first quoted "without dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN

V(t) – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"

V(i, t) – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value V(i, t) is not calculated if the issue price P(i, em) is higher than the share price P(i, t)

Q(t) – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after the trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index

P(i, t) – P(i, t) – share price "i" at trading session "t"

P(i, em) – price of the shares of new issue with subscription rights of the Company "i"

S(i) – number of rights necessary to take up one share of new issue of the Company "i"

N(i) – number of shares of the company "i" in the Index Portfolio.

- 9.1.6. The annual revision of the Index is carried out after the Session on the third Friday of December, and its purpose is to make the necessary changes to the list of Index Participants and to determine new weightings for all Index Participants.

- 9.1.7. After the annual revision, Index participants are the companies that paid dividends in each of the last five financial years, up to and including the last Session of November of the financial year in which the revision is carried out.
- 9.1.8. In the case of the Companies whose financial instruments have been listed for less than five years, the information on the payment of dividend for previous financial years, contained in the relevant Information Document, is also taken into account.
- 9.1.9. The weightings of the Companies (shares) in the Index Portfolio after the annual revision are determined as at the date after the last Session of November.
- 9.1.10. The weighting is reduced proportionally after the last Session of November if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
- 9.1.11. The quarterly adjustment is carried out after the Session on the third Friday of March, June and September, and its purpose is to determine new weightings for all Index Participants.
- 9.1.12. The numbers of shares (weightings) of the Companies are determined as at the date after the last Session of February, May and August.
- 9.1.13. The weighting is reduced proportionally after the last Session of February, May and August if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
- 9.1.14. In exceptional cases, an extraordinary adjustment may be carried out, consisting in removing the Company from the list of Index Participants.
- 9.1.15. An extraordinary adjustment of the list of Index Participants is made in particular if the general meeting of a Company that is an Index Participant adopts a resolution on the allocation of full profit for a previous financial year for a purpose other than a dividend payment.
- 9.1.16. The Index is calculated when the number of Index Participants is at least 3 Companies.

## 10. DETAILED RULES OF CONSTRUCTION OF MACROSECTOR INDICES

### 10.1. Macrosector Indices

- 10.1.1. The administrator calculates and publishes the values of the following Macrosector Indices:
  - a) WIG.MS-BAS (covering companies from industries related to energy, mining and raw materials),
  - b) WIG.MS-FIN (covering companies from industries related to banking, insurance, capital market and debts),
  - c) WIG.GAMES5 (covering companies from industries of video game developers and publishers),
  - d) WIG.MS-PET (covering companies from fuel, gas and chemical industries).
- 10.1.2. The Portfolio may include the shares of the Companies qualified for WIG20, mWIG40 or sWIG80 Indices.
- 10.1.3. Portfolios of individual Indices include the shares of five Companies.
- 10.1.4. In exceptional cases, it is permissible that more or less than 5 companies participate in the Index.
- 10.1.5. The base dates of the Macrosector Indices are:
  - a) 30 December 2015 for WIG.MS-BAS,
  - b) 30 December 2015 for WIG.MS-FIN,
  - c) 28 December 2018 for WIG.GAMES5,
  - d) 29 December 2017 for WIG.MS-PET.
- 10.1.6. The base values of the Macrosector Indices are:
  - a) 10,000.00 points for WIG.MS-BAS,
  - b) 10,000.00 points for WIG.MS-FIN,
  - c) 10,000.00 points for WIG.GAMES5,
  - d) 10,000.00 points for WIG.MS-PET.
- 10.1.7. Macrosector Index values are determined with dividend income excluded.
- 10.1.8. When quoting the Company's shares for the first time "without subscription rights" with a Reference Price lower than the last Closing Price, the Company's weighting is not included in the first Session "without subscription rights" in the Index Portfolio. An announcement of an expected change in the Index Portfolio related to this operation may be published a day before the date of the last quoting of the Company's shares with subscription rights. Information on performance of this operation is published after the end of the Session during which the shares of this Company were last quoted with subscription rights.
- 10.1.9. After the Session of the third Friday of March, June, September and December, a quarterly revision of the Macrosector Index Portfolio is carried out, which is aimed at determining new weightings of shares.
- 10.1.10. The classification of the Companies in the Macrosector Index takes place on the basis of their position in the Ranking of a given Index.
- 10.1.11. The Macrosector Index Ranking is prepared as at the end of February, May, August and November, and the average spread weighted by turnover as well as the average daily number of Transactions calculated for the last 12 months is taken

into account for its preparation (including the month in which the Ranking is prepared).

- 10.1.12. In the Macrosector Index Ranking, the highest ranked companies are the ones with the lowest average spread and the highest average number of Transactions referred to in Section 10.1.11.
- 10.1.13. The Portfolio of a given Macrosector Index consists of the companies ranked the highest in the Ranking of this Index.
- 10.1.14. In the case of identical scores in the Ranking for two or more Companies, the Index Portfolio includes the Company whose shares in the period for which the Ranking was drawn up were used to conclude the highest number of Transactions.
- 10.1.15. The weightings of the Companies in the Macrosector Index Portfolio are determined as at the end of February, May, August and November.
- 10.1.16. The weighting of shares is reduced proportionally as at the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 40% of its value.
- 10.1.17. Based on the Ranking, a reserve list of Macrosector Index Participants is developed, to supplement the list of Index Participants during the extraordinary adjustment.
- 10.1.18. The reserve list shall be made public.
- 10.1.19. The reserve list shall include at least 2 Companies.
- 10.1.20. The average spread weighted by turnover referred to in Sections 10.1.11 and 10.1.12 is calculated in accordance with the following formula:

$$S = \frac{\sum_{i=1}^N O_i * S_i}{\sum_{i=1}^N O_i}$$

where:

$$S_i = 20000 * \left| \frac{k(b) - \left(\frac{k+s}{2}\right)}{\frac{k+s}{2}} \right|$$

$O_i$  – value of the  $i$ -th Transaction

$k(b)$  – current price of the  $i$ -th Transaction

$k$  – best bid before the conclusion of the  $i$ -th Transaction

$s$  – best offer before the conclusion of the  $i$ -th Transaction

- 10.1.21. If the GPW decided to exclude the shares of a given Company from Exchange Trading at the request of KNF or BFG, the Administrator shall immediately remove the Company from the list of Index Participants of a given Index and enter the Company which was ranked highest in the last Index Ranking but was not included in this Index.
- 10.1.22. If Exchange Trading in shares of a given Company is suspended at the request of the KNF or BFG, an extraordinary adjustment of the list of Index Participants may be carried out by removing a given Company from the list of Index Participants without replacing it by another Company.
- 10.1.23. If, before the lapse of 10 Session Days from the suspension of Trading referred to in Section 10.1.22, the Trading in the Company's shares removed from the list of Index Participants is resumed, the Company will be immediately re-entered in this list.

- 10.1.24. After 10 Session Days from the suspension of Trading referred to in Section 10.1.22, the Company deleted from the list of Index Participants is immediately replaced by the Company that was ranked highest in the last Index Ranking but was not qualified for this Index.
- 10.1.25. In exceptional cases, an extraordinary adjustment may be carried out, consisting in removing the Company from the list of Index Participants.
- 10.1.26. If an extraordinary adjustment is made, the Company deleted from the list of Index Participants is replaced by a Company that was ranked highest in the last Index Ranking, but was not qualified for this Index.

## 11. DETAILED RULES OF CONSTRUCTION OF THE WIGTECH AND WIGtechTR INDICES

### 11.1. WIGtech

- 11.1.1. The Index Portfolio may include the shares of the Companies qualified for biotechnology, video games, IT and telecom, as well as new technology sectors.
- 11.1.2. The base date of this Index is 21 June 2019.
- 11.1.3. The Index value on the base date is 10,000.00 points.
- 11.1.4. The Index value is determined with dividend income excluded.
- 11.1.5. After the Session of the third Friday of March, June, September and December, a quarterly revision of the Index Portfolio is carried out, which is aimed at determining new weightings of shares.
- 11.1.6. The weightings of the Companies in the Index Portfolio are determined as at the end of February, May, August and November.
- 11.1.7. The weighting of shares is reduced proportionally as at the Ranking Day if the value of shares of a given Company in the Index Portfolio exceeds 10% of its value.
- 11.1.8. In exceptional cases, an extraordinary adjustment may be carried out by removing a Company from the list of Index Participants.

### 11.2. WIGtechTR

- 11.2.1. The Index Portfolio may include the shares of the Companies qualified for the WIGtech Index.
- 11.2.2. The base date of this Index is 21<sup>st</sup> June 2019.
- 11.2.3. The Index value on the base date is 10,000.00 points.
- 11.2.4. The Index value is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and:  $M(t') = M(t) - D(t) - V(t) + Q(t)$

where:

$$V(i,t) = \frac{P(i,t) - P(i,em)}{S(i) + 1} * N(i)$$

D(t) – value of the dividend on equity or theoretical value of the dividend from the shares (calculated by the Exchange pursuant to the Detailed Exchange Trading Rules) first quoted "without dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN

V(t) – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"

$V(i,t)$  – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value  $V(i,t)$  is not calculated if the issue price  $P(i,em)$  is higher than the share price  $P(i,t)$

$Q(t)$  – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index

$P(i,t)$  – share price "i" at trading session "t"

$P(i,em)$  – price of the shares of new issue with subscription rights of the Company "i"

$S(i)$  – number of rights necessary to take up one share of new issue of the Company "i"

$N(i)$  – participation (number of shares) of the Company "i" in the Index portfolio.

11.2.5 The quarterly revision and the extraordinary adjustment of the list of Index Participants are carried out in accordance with the rules for the WIGtech Index.

## 12. DETAILED PRINCIPLES OF CONSTRUCTING, CALCULATING AND MAKING PUBLIC THE INDICES OF THE NewConnect

### 12.1. NCIndex

- 12.1.1. Having met the conditions specified in the Rules, a Company whose shares are listed in the Multilateral Trading Facility on the NewConnect Market, may be entered in the list of Participants of the NCIndex.
- 12.1.2. The list of NCIndex Participants may not include those Companies which have been assigned a special designation under Article 150(1) of Annex 2 to the Rules of the Multilateral Trading Facility,
- 12.1.3. The list of NCIndex Participants may not include the Companies whose shares were qualified for the NC Alert segment.
- 12.1.4. If the shares of a Company are qualified for the NC Alert segment, the Company is deleted from the list of Participants of the NCIndex.
- 12.1.5. The rules of classification of Companies into the NC Alert segment are specified in a relevant resolution of the GPW Management Board on the separation of the NewConnect market segments and the rules and procedures of classification into these segments.
- 12.1.6. The list of NCIndex Participants may include Companies whose number of shares in free float is higher than 10% and the value of shares in free float is higher than PLN 1 million and its shares have been involved within the last three months in at least one Exchange Transaction on the NewConnect.
- 12.1.7. The value of shares in free float is calculated as the Closing Price of the shares times the number of shares in free float on the Ranking Day.
- 12.1.8. The NCIndex value is calculated using the following formula:

$$Indeks(t) = \frac{M(t)}{M(0) * K(t)} * Indeks(0)$$

Index(t) – value of the Index at trading session “t”

M(t) – capitalisation of the Index Portfolio at trading session “t”

M(0) – capitalisation of the Index Portfolio on base date

Index(0) – value of the Index on base date

K(t) – adjustment coefficient for the Index at trading session “t”

- 12.1.9. The Index values are calculated based on the prices expressed in PLN of the last Transactions at a Session that involved the shares of a given Company, or, if there were no such Transactions, based on the Reference Prices of these shares.
- 12.1.10. The Company's weighting in the NCIndex portfolio is composed of the entire equity in free float, in a quantity not greater than the number of shares listed in the Multilateral Trading Facility.
- 12.1.11. The numbers of shares (weightings) of Companies in the Index Portfolios after revision, adjustment or extraordinary adjustment are rounded to the nearest thousand.
- 12.1.12. The value of a weighting is obtained by multiplying the weighting of the shares in the Index Portfolio by their price. The sum of the products is the capitalisation of the Index Portfolio.



12.1.13. To maintain continuity of the values of the Index during revision, adjustment or extraordinary adjustment, the adjustment coefficient shall be applied.

12.1.14. The adjustment coefficient applicable at the Session following revision, adjustment or extraordinary adjustment shall be calculated based on the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

M(t') – capitalisation of the Index Portfolio after revision, adjustment or extraordinary adjustment calculated on the basis of the last price

M(t) – capitalisation of the closing Index Portfolio before revision, adjustment or extraordinary adjustment

K(t) – previous value of the adjustment coefficient

K(t+1) – new value of the adjustment coefficient

12.1.15. Opening values of the NCIndex, calculated on a continuous basis, shall be disclosed to the public after the W opening indicator reaches 35% but not later than one hour after the opening of a Session.

12.1.16. The W opening indicator is calculated as the ratio of the current value of the weightings for which transactions were concluded during the Session to the current capitalization of the Index Portfolio.

12.1.17. Upon the publication of the opening value, the subsequent values of the Index calculated on a continuous basis are published every 5 minutes.

12.1.18. Following the closing of the Session the final opening and closing values of the NCIndex are published, as well as indicators containing the daily statistics.

12.1.19. The closing value of the Index shall be the central day value of the Index, used in particular to recalculate the K(t) adjustment coefficient values.

12.1.20. If cancellation of Transactions affects the value of NCIndex, the opening and closing values of the Index, as well as its daily maximum and minimum values shall be recalculated and once again published during the Session.

12.1.21. Information about the changes in NCIndex shall be disclosed to the public in accordance with the following timetable:

- a) revisions and quarterly adjustments - 2 days before their effective date,
- b) extraordinary adjustments - immediately.

12.1.22. The Index Portfolio includes weightings of the Companies listed on the NewConnect Market.

12.1.23. The Index base date is 30 August 2007.

12.1.24. The Index value on the base date is 1.000,00 points.

12.1.25. The Index value is determined taking into account equity income, in particular from dividends and subscription rights (Total Return Index). For this purpose, an adjustment coefficient is used, calculated on the basis of the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and

$$M(t') = M(t) - D(t) - V(t) + Q(t)$$

where:

$$V(i, t) = \frac{P(i, t) - P(i, em)}{S(i) + 1} * N(i)$$

- D(t) – value of the dividend from the shares first quoted "without dividend rights" at trading session "t+1"; if the dividend is set in a foreign currency, the dividend amount is converted into PLN
- V(t) – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"
- V(i,t) – V(i,t) – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value V(i,t) is not calculated if the issue price P(i,em) is higher than the share price P(i,t)
- Q(t) – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after the trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index
- P(i,t) – P(i,t) – share price "i" at trading session "t"
- P(i,em) – price of the shares of new issue with subscription rights of the Company "i"
- S(i) – number of rights necessary to take up one share of new issue of the Company "i"
- N(i) – number of shares of the company "i" in the Index portfolio

- 12.1.26. After the Session of the third Friday of March, June, September and December, a quarterly revision of the Index Portfolio is carried out, which is aimed at determining new weightings of shares.
- 12.1.27. The participation (share portfolios) of Companies in the Index Portfolio is determined as at the date after the end of the Session of the second Friday of March, June, September and December.
- 12.1.28. If the weighting value determined during a revision exceeds 10% of the Index Portfolio capitalisation, the weighting is reduced to the value equal to 10% of the Index Portfolio capitalisation.
- 12.1.29. In exceptional cases, an extraordinary adjustment may be carried out by removing a Company from the list of Index Participants.
- 12.1.30. An extraordinary adjustment of the list of Index Participants may be carried out when a new Company is introduced to trading for the first time.
- 12.1.31. The shares of a Company entered in the list of Participants of the NCIndex after 20 trading days from the day of the first quotation of these shares on the NewConnect market.

12.1.32. The weighting of the Company making its debut in the Index Portfolio is determined based on the rules of the quarterly revision of the Index Portfolio.

### **13. DETAILED PRINCIPLES OF CONSTRUCTION AND PUBLICATION OF THE WIG-CEE INDEX**

#### **13.1. WIG-CEE**

- 13.1.1. WIG-CEE is a total return index covering income from dividends and subscription rights.
- 13.1.2. WIG-CEE Index Participants are Companies whose shares are listed on the Regulated Market or the Multilateral Trading Facility from the following countries: Bulgaria, Croatia, Czech Republic, Estonia, Lithuania, Latvia, Romania, Slovakia, Slovenia, Ukraine, Hungary.
- 13.1.3. When assessing the status of a given Company, the Administrator shall take into account the country in which the registered office of the Company is established or the country in which the governing body of the Company is established, the country in which the Company or its subsidiaries conduct their activity to the largest extent, and the country in which the Company's initial public offering was carried out. When assessing the status of the Company, the Administrator may consult with the Index Committee.
- 13.1.4. The list of Index Participants may include the Companies from a given country, providing that the following criteria are met:
  - a) shares of at least two Companies from a given country are listed on the Market or the Facility referred to in 13.1.2, and
  - b) Companies referred to in letter a) were classified into different sectors according to the Sector Classification Regulations.
- 13.1.5. The list of Index Participants may not include those Companies which have been assigned a special designation under Article 3(1) of Division 7 of the GPW Detailed Exchange Trading Rules or under Article 150(1) of Annex 2 to the Rules of the Multilateral Trading Facility.
- 13.1.6. The list of Index Participants may not include the Companies whose shares were classified:
  - a) into the regulated market segment "ALERT LIST" or in the Lower Liquidity Zone, or
  - b) into the NC Alert segment.
- 13.1.7. If the shares of a Company are classified as described in point 13.1.6, the Company is deleted from the list of Index Participants.
- 13.1.8. The rules of classification of Companies into the NC Alert segment are specified in a relevant resolution of the Exchange Management Board.
- 13.1.9. On its website, the Administrator publishes a list of Index Participants, including the weightings in the Index Portfolio and announcements of expected changes in the composition of the Index Portfolio.
- 13.1.10. A quarterly revision of the Index Portfolio is carried out after the Session of the third Friday of March, June, September and December and consists of the change of the list of Index Participants and update of their weightings as at the last February, May, August and November session.
- 13.1.11. Entering for the first time in the list of Index Participants a Company from a country from which no company has yet been entered in the list is performed during a quarterly revision.

- 13.1.12. After the quarterly adjustment, the list of Index Participants may include Companies whose shares have been involved within the last three months in at least one Transaction on the Market or the Facility referred to in 13.1.2.
- 13.1.13. Information on the quarterly revision is published at least one week in advance.
- 13.1.14. The extraordinary adjustment may be conducted to enter a Company into the list of Index Participants in the cases referred to in 13.1.15 and 13.1.16 or in order to delete a Company from the list of Index Participants.
- 13.1.15. A company quoted for the first time on the Regulated Market referred to in 13.1.2 may be entered in the list of Index Participants after the third Session following the day of the first quotation if at least one currently quoted Company from the same country is or was an Index Participant.
- 13.1.16. A company listed for the first time in the Multilateral Trading Facility referred to in 13.1.2 may be entered in the list of Index Participants after the 20th Session from the day of the first quotation under condition that at least one currently quoted Company from the same country is or was the Index Participant.
- 13.1.17. In exceptional cases, a Company may be removed from the list of Index Participants.
- 13.1.18. Information on the extraordinary adjustment is published without delay before the adjustment is performed.
- 13.1.19. The weighting of a Company in the Index Portfolio is composed of the entire equity in free float, in a quantity not greater than the number of shares admitted to public trading or listed in the Multilateral Trading Facility, rounded to the nearest thousand.
- 13.1.20. Subject to the circumstances described in 13.1, the number of shares (weighting) of a given Index Participant is increased when the number of shares in free float of such Participant, being the basis for determination of such weighting, is increased by a number of shares whose equivalent in PLN is at least EUR 250 million.
- 13.1.21. The weighting in the Index Portfolio is determined as at the last February, May, August and November session.
- 13.1.22. The weighting in the Index Portfolio following a quarterly revision or extraordinary adjustment shall be rounded up or down to the nearest thousand.
- 13.1.23. The weighting in the Index Portfolio of the shares of Companies from the same country is limited to 50%.
- 13.1.24. The weighting of a single Index Participant's shares in the Index Portfolio is limited to 10%. If the number of Index Participants is lower than 30, the weighting of shares of a single Company in the Index Portfolio is reduced to 25%.
- 13.1.25. The reduction of the number of shares of Index Participants whose weighting in the Index exceeds the values indicated in Section 13.1.24 and 13.1.23 is carried out as part of the quarterly revision.
- 13.1.26. The base date of this Index is 31 December 2010.
- 13.1.27. The Index value on the base date is 1.000 points.
- 13.1.28. Base capitalisation is PLN 4,955,127,360.00.
- 13.1.29. The WIG- CEE value is calculated using the following formula:

$$Indeks(t) = \frac{M(t)}{M(0) * K(t)} * Indeks(0)$$

- Index(t) – value of the Index at trading session "t"
- M(t) – capitalisation of the Index Portfolio at trading session "t"
- M(0) – capitalisation of the Index Portfolio on base date
- Index(0) – value of the Index on base date
- K(t) – adjustment coefficient for the Index at trading session "t"

13.1.30. The Index values are calculated based on the prices expressed in PLN of the last Transactions at a Session that involved the shares of the Companies, or, if there were no such transactions, based on the Reference Prices.

13.1.31. The weighting and the share price of the Company in the Index Portfolio changes automatically if the share nominal value is reduced or increased.

13.1.32. To maintain continuity of the Index value, the adjustment coefficient K(t) is applied, calculated using the following formula:

$$K(t+1) = \frac{M(t')}{M(t)} * K(t)$$

and

$$M(t') = M(t) - D(t) - V(t) + q(t)$$

where

$$V(i,t) = \frac{P(i,t) - P(i,em)}{S(i) + 1} * N(i)$$

- D(t) – value of the equity dividend or theoretical value of the dividend (calculated pursuant to the UTP Detailed Exchange Trading Rules) first quoted "without dividend rights" at trading session "t+1"
- V(t) – theoretical value of subscription rights to shares first quoted "without subscription rights" at trading session "t+1"
- V(i,t) – theoretical value of subscription rights to shares "i" first quoted "without subscription rights" at trading session "t+1"; the theoretical value V(i,t) is not calculated if the issue price P(i,em) is higher than the share price P(i,t)
- Q(t) – market value of the shares to be admitted to (+) or excluded (-) from the Index Portfolio after the trading session "t"; this applies to both increasing the weightings of the Companies previously participating in the Index, as well as the weightings of the Companies not yet participating in the Index
- P(i,t) – P(i,t) – share price "i" at trading session "t"
- P(i,em) – price of the shares of new issue with subscription rights of the Company "i"
- S(i) – number of rights necessary to take up one share of new issue of the Company "i"
- N(i) – number of shares of the company "i" in the Index portfolio

13.1.33. The Index values are given in points with accuracy to 0.01 point.

- 13.1.34. The opening value of the Index is disclosed to the public after the W opening indicator reaches 35%, otherwise the opening value equals to the closing value.
- 13.1.35. The W opening indicator is calculated as the ratio of the current value of the weightings for which Transactions were concluded during the Session, to the current capitalisation of the Index Portfolio.
- 13.1.36. The Index values are calculated on a continuous basis and disclosed to the public at 11:15 am opening, 03:15 pm after the second fixing.
- 13.1.37. Following the closing of the Session the final opening and closing values of the Index are published, as well as indicators containing the daily statistics.
- 13.1.38. The closing value of the Index shall be the central day value of the index, used in particular to recalculate the  $K(t)$  adjustment coefficient values.
- 13.1.39. If cancellation of Exchange Transactions affects the value of the Index, the opening and closing values of the Index, as well as its daily maximum and minimum values shall be recalculated and once again published after the Session.
- 13.1.40. During the Trading Session the Administrator shall not perform any recalculation or their re-publication.

## 14. FINAL PROVISIONS

- 14.1. Determining the number of free-float shares, determining the values set in foreign currencies
  - 14.1.1. The number of free float shares for the purpose of managing the Index Portfolios is determined according to the provisions of the Rules on determining the number of free-float shares.
  - 14.1.2. For the purpose of these Rules, the values expressed in a currency other than PLN are set based on the current average rate for this currency announced by the National Bank of Poland on the day preceding the date on which such values are set.
  - 14.1.3. For the purpose of these Rules, to convert into EUR the values expressed in a currency other than PLN, the values expressed in a foreign currency other than EUR are converted into PLN and subsequently such value is converted from PLN into EUR. Conversion is made based on the current average conversion rate for a given currency announced by the National Bank of Poland on the day preceding the date of conversion.
  - 14.1.4. If current average exchange rate for a given currency referred to in point 14.1.2 or 14.1.3 has not been announced, to determine the values referred to in point 14.1.2 or 14.1.3, the current average exchange rate for this currency last announced by the National Bank of Poland is used.
- 14.2. Waiver
  - 14.2.1. Having regard to the security of trading and the interest of market participants, the Administrator, upon consultation with the Oversight Committee, may waive specific provisions of the Rules.
- 14.3. Amendments of the Rules
  - 14.3.1. The Administrator, upon obtaining a positive opinion from the Oversight Committee, may amend the Rules.
  - 14.3.2. The amended Rules shall be made available to Index Users in a manner specified in point 2.4.1.
  - 14.3.3. The amended Rules shall become effective as of the date indicated in the information on the amendment to the Rules, and no sooner than 30 days after the amended Rules are made available in a manner specified in point 2.4.1, subject to point 14.3.4.
  - 14.3.4. The Administrator may decide that the amendments to the Rules become effective before the date indicated in point 14.3.3 if the amendment is aimed at adjusting the Rules to the applicable laws or if it follows from the KNF decision, and if provisions concerning the description of a new Index method are introduced.
  - 14.3.5. Amendments to the Rules introduced by the Resolution of the Management Board on 12 February 2021 shall enter into force on 19 March 2021. As part of the periodic adjustment of the Indexes on 19 March 2021, the Administrator, when determining new compositions of the Index Portfolios, takes into account the new rules introduced in the Rules as published on 12 February 2021.