LPX GROUP
LISTED ALTERNATIVE INVESTMENTS

2024

Guide to the NMX Infrastructure Index Series

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LPX AG

2024
Version 2.5

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The Guide sets out the ground rules for the construction and maintenance of the NMX Infrastructure Index Series.

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1 General Index Information

The design of NMX Infrastructure Index Series is based on a proprietary industry classification scheme, which ensures the representative composition of the NMX indices focusing on global basic infrastructure companies. The index members of the NMX indices are distinguished by the fact that they are categorized as 'basic infrastructure' companies, defined as companies, which own or operate a physical infrastructure network. Against this background, the NMX indices are suitable for mapping the risk and return characteristics of the infrastructure asset class.

A key challenge in infrastructure investing is that there is no standard industry classification scheme available that ensures for the consistent identification of a global universe of listed infrastructure companies. In the field of indexing, a reliable industry classification scheme is crucial to the design of representative performance benchmarks. The industry classification scheme developed by LPX AG enables the identification and classification of basic infrastructure companies that own and/or operate a physical infrastructure network.

The NMX indices contribute to the investment process by serving as a relevant and representative performance benchmark and as an effective research tool. The design, development and delivery of the NMX indices ensure that they are investable, tradable and transparent.

LPX reserves the right to deviate from the rules set forth in this Index Guide in case the properties of the base universe impede to follow the stipulated index construction rules. In such a case all relevant stakeholders will be informed and changes to the index construction methodology will be communicated on the LPX corporate website at the earliest possible date.

1.1 NMX Infrastructure Index Series

The NMX Infrastructure Index Series consist of global and regional indices, which are outlined in the following. The composition of the indices in terms of eligible index constituents follows the rules as described in Section 2.

NMX Composite

The NMX Composite is designed to represent the global performance of the infrastructure asset class and comprises the most highly capitalized and liquid basic Infrastructure companies. The index is diversified across regions, currencies and infrastructure sectors. Basic Infrastructure companies refer to companies which own and/or operate a core infrastructure network facility in the infrastructure sectors Energy, Transport, Water and Communication (ICT).

The reference currency of the NMX Composite is EUR. The index is available as a Price Index and Total Return (Net).

NMX30 Infrastructure Global

The NMX30 Infrastructure Global is designed to represent the global performance of the infrastructure asset class and comprises the 30 most highly capitalized and liquid basic Infrastructure companies. The index is diversified across regions, currencies and infrastructure sectors. Basic Infrastructure companies refer to companies which own and/or operate a core infrastructure network facility in the infrastructure sectors Energy, Transport, Water and Communication (ICT).

The reference currency of the NMX30 Infrastructure Global is EUR. The index is available as a Price Index and Total Return (Net).

NMX Asia

The NMX Asia is designed to represent the performance of Basic Infrastructure companies, which are listed on a stock exchange in Oceania. The index is diversified across currencies and infrastructure sectors. Basic Infrastructure companies refer to companies which own and/or operate a core infrastructure network facility in the infrastructure sectors Energy, Transport, Water and Communication (ICT).

The reference currency of the NMX Asia is EUR. The index is available as a Price Index and Total Return (Net).

NMX Europe

The NMX Europe is designed to represent the performance of Basic Infrastructure companies, which are listed on a European stock exchange. The index is diversified across countries, currencies and infrastructure sectors. Basic Infrastructure companies refer to companies which own and/or operate a core infrastructure network facility in the infrastructure sectors Energy, Transport, Water and Communication (ICT).

The reference currency of the NMX Europe is EUR. The index is available as a Price Index and Total Return (Net).

NMX America

The NMX America is designed to represent the performance of Basic Infrastructure companies, which are listed on a North and South American stock exchange. The index is diversified across countries, currencies and infrastructure sectors. Basic Infrastructure companies refer to companies which own and/or operate a core infrastructure network facility in the infrastructure sectors Energy, Transport, Water and Communication (ICT).

The reference currency of the NMX America is EUR. The index is available as a Price Index and Total Return (Net).

1.2 Reference Date, Weighting and Cap

The reference date is chosen such that a minimum of 10 initial constituents is ensured. The NMX indices are calculated according to the calculation algorithm described in Section 3 of this Guide. In order to limit the weight of individual constituents in the indices, a cap (the variable is defined as "CAP" in this Guide) is set for the market capitalization of any single constituent of the index (see Section 3 for details). If the number of constituents of an index is 15 or more, a cap of 15% or less is implemented for any single constituent (refer to Table 1 for the current cap applied in the respective index). An overview of the characteristics of the NMX indices is presented in Table 1.

Table 1: Characteristics of the NMX Infrastructure Index Series

Index	Number of Constituents	Reference date	CAP	Chaining dates[c]
NMX Composite[a]	80	31.12.1998	10%	Jan, July
NMX30 Infrastructure Global[a]	30	31.12.1998	10%	Jan, July
NMX30 Infrastructure Global US[a,b]	30	31.12.1998	10%	Jan, April July, Oct
NMX Asia	25	31.12.1998	10%	Jan, July
NMX Europe	25	31.12.1998	10%	Jan, July
NMX America	35	31.12.1998	10%	Jan, July

[a] Please refer to Section 2.3, which describes the diversification rule of the respective index.
[b] The capping methodology for NMX30 Infrastructure Global US is outlined in Section 3.3.
[c] For the ordinary chaining dates as depicted in Table 1, the following rule applies: For the calender months Jan, Apr, July, and Oct, the chaining date takes place on the SECOND THURSDAY of the respective month. In case the chaining date falls on a bank holiday the chaining date is preponed T-1. Generally, the share fixing takes place in T-5, where T refers to the chaining date. For the NMX30UT, the share fixing takes place in T-1, where T refers to the chaining date. The effective date of the chaining is by definition T+1. The index changes (i.e., index mutations) are communicated on the LPX AG corporate website at the earliest possible date.

1.3 Prices

Official closing prices from the primary stock exchanges of the respective index constituent securities are used for the calculation of the LPX indices. All exchange closing prices are sourced from Thomson Reuters. In case the official closing price of a constituent instrument is not available (i.e., suspension, illiquidity, bank holiday, etc.), the previous official closing price is used for the specific instrument for index calculation. In the event of a suspension during trading hours, the last price determined before such a suspension is used for subsequent calculations. If such suspension occurs before the start of trading, the closing price of the previous day is used. In the event of an exchange holiday, the closing prices from the previous day are used. LPX AG publishes the indices for every day except for Saturdays and Sundays. There are generally no index holidays for the LPX indices.

1.4 Calculation Frequency

Generally, official closing index values are calculated and disseminated via appropriate channels. Furthermore, the NMX indices are calculated in real-time during official trading hours and disseminated to a broad array of data vendors. For details on the underlying data provider mnemonics refer to Section 7.

1.5 Country Allocation

The NMX base universe includes companies that are traded on regulated exchanges worldwide. The base universe is continuously reviewed and new eligible companies are added in accordance to Section 2.1. The constituents of the NMX base universe are traded on the stock exchanges as outlined in Table 2.[2]

Table 2: NMX Base Universe - Global Stock Exchanges

Country	Exchange Name	MIC
Australia	Australian Stock Exchange (ASE)	XASX
Belgium/Luxembourg	EN Brussels	XBRU
Brazil	Sao Paulo Stock Exchange (BOVESPA)	BVMF
Canada	Toronto Stock Exchange (TSX)	XTSE
Chile	Santiago Stock Exchange	XSGO
China	HKEx (Hong Kong Stock Exchange)	XHKG
France	NYSE Euronext	XPAR
Germany	Deutsche Börse XETRA	XETR
Greece	Athens Exchange SE	XATH
Hong Kong	HKEx (Hong Kong Exchanges and Clearing)	XHKG
Indonesia	Indonesia Stock Exchange (IDX)	XIDX
Italy	Borsa Italiana SpA	MTAA
Japan	Tokyo Stock Exchange (TSE)	XTKS
Malaysia	Bursa Malaysia	XKLS
Mexico	Bolsa Mexicana De Valores (BMV)	XMEX
New Zealand	NZX (New Zealand Stock Exchange)	XNZE
Philippines	Philippine Stock Exchange (PSE)	XPHS
Singapore	Singapore Stock Exchange (SGX)	XLON
Spain	Soc.Bol SIBE	XMCE
Switzerland	SWX Swiss Exchange	XSWX
Switzerland	Virt-X Exchange	XVTX
Thailand	The Stock Exchange of Thailand (SET)	XBKK
Turkey	Istanbul Stock Exchange	XIST
United Kingdom	London Stock Exchange (LSE)	XLON
United States	NYSE (New York Stock Exchange)	XNYS
United States	NASDAQ National Market System	XNGS
United States	NASDAQ National Market System	XNMS

[a] refers to Market Identification Code ISO 10383 (MIC).

[2] LPX AG reserves the right to add further exchanges to the list above.

1.6 Currency Conversion

The foreign exchange rates used in the calculation of the NMX Infrastructure Index Series are the WM/Reuters Closing Spot Rates, compiled by the WM Company. In the event that WM/Reuters Closing Spot Rates are not published by the WM Company, the previous day's rates will be used to calculate the NMX Infrastructure Index Series.

1.7 Error Correction Policy

The objective is to maintain the NMX indices to the highest standards of accuracy and integrity, using reliable data sources and following best practice in statistical and operational procedures. Where material errors occur in data or in calculation procedures, these are corrected promptly (i.e. within one business day). However, LPX AG is conscious of the risk of damaging the confidence of users through the frequent publication of amendments where trivial statistical errors have occurred that do not materially affect the accuracy of the published index series.

2 Choice of Index Constituents

2.1 Methodology

The NMX base universe is a subset of the global equity universe and is determined using a multi-step approach that ensures the identification of basic infrastructure companies ("basic infrastructure"), which are eligible for inclusion in the NMX base universe.

1. Identification of listed companies, which operate in the field of infrastructure. These companies form the NMX raw universe.

2. Screening of the raw universe on a single constituent basis in order to identify network operating companies (basic infrastructure companies). A company is considered as core infrastructure when the company owns, operates or manages one of the following infrastructure networks as described in Table 3.[3]

3. Balance sheet analysis in order to measure the revenue contribution of network operations. Eligible companies for inclusion in the NMX base universe show a minimum network revenue contribution of at least 50%.[4]

Within the framework of a continuous research process, LPX AG checks whether a company currently in the base universe is still an eligible constituent or whether new companies that have previously not been considered should be included.

Based on the balance sheet analysis, LPX determines the infrastructure sector and subsector affiliation (i.e., energy, transport, water, communication). The instruments are classified according to the sector affiliation, which dominates the contribution to total revenue. The regional affiliation is based on the domiciliation of the infrastructure company. The information to set up the industry classification is based on publicly available information.

[3]Typically the company owns the core infrastructure assets and/or operates, manages the assets under a long-term concession contract.

[4]LPX AG reserves the right to exclude companies where the standardized measurement of infrastructure network revenue contribution is not feasible.

Table 3: Types of Infrastructure

The table outlines the infrastructure universe by industry sector level. It is distinguished between infrastructure sectors and subsectors. The term *Basic Infrastructure* refers to infrastructure network facilities, which are eligible for index inclusion. *Infrastructure-related Services* refer to transportation, maintenance and construction services in the field of infrastructure and are not eligible for inclusion. Representative examples are provided. *Social Infrastructure* is not covered by the definition of infrastructure in the means of the NMX Infrastructure Index Series.

Sector	Subsector	Basic Infrastructure	Infrastructure-Related Services (not eligible for inclusion)
Energy	Network Gas-Oil	Gas-Oil pipelines	Gas-Oil extraction and refinery, maintenance services
	Network Energy	Grid networks	Electricity generation, construction and maintenance companies
Transport	Airport	Airport sites, runways	Airlines, passenger, cargo, and ground handling services
	Port	Berth, harbor facilities	Shipping lines, cargo services
	Toll Road	Road, tunnels, bridges	Passenger/freight transportation, cleaning services
	Railways	Railways, tunnels, bridges	Passenger/freight transportation, cleaning services
Water	n/a	Water pipes, sewer lines	Sanitation supplies, water chemicals
ICT	n/a	ICT networks, satellites	ICT service providers, ICT supplies

2.2 Constituent Selection

Table 3 presents the infrastructure industry sectors, which are eligible for inclusion in the index. The focus lies on companies which own, manage or operate a basic infrastructure facility. Infrastructure-related service companies and social infrastructure is not considered for inclusion in the NMX indices.

- Within the sector *Energy* the focus is on basic infrastructure network facilities in the field of energy transmission and transportation. The following energy subsectors are considered:[5]
  - *Network Gas-Oil* refers to a supra-regional pipeline infrastructure network. The Network Gas-Oil services comprise the transmission of LNG or crude oil from an extraction installation or shipping port to a storage facility that serves as a central distribution point.
  - *Network Energy* refers to a regional or supra-regional electricity grid network. The Network Energy services comprise the transmission of high-voltage electricity through gridlines from power plants to demand centers (e.g., substations and transformers) that reduce high voltage for final distribution.
- Within the *Transport* sector, it is distinguished between land transport (Road), rail transport and UMT (Railways), air transport (Airport) and water transport (Port). Typically, agents choose among these modes of infrastructure transportation for any sort of passenger and freight transportation between two locations.[6] The following Transport subsectors are considered:

[5] Within the Energy sector, Energy conglomerates are excluded from the NMX universe. These kind of companies typically operate through the whole value chain spectrum (e.g. extraction, refinery, generation, transmission & distribution, etc.) and hence measurement of network revenue contribution is not feasible.

[6] To some extent, the different modes of transportation are competitive and interdependent.

- *Airport* can be divided into landside and airside areas. The physical assets from the landside area include parking lots, train stations, and access roads. The airside area includes all areas that are accessible and relevant to aviation including runways, control towers, and hangars. Airport services comprise management of infrastructure facilities, ground handling (passenger and cargo), and airside handling.
- *Port* can be divided into landside and waterside areas. The physical assets comprise everything needed to handle bulk cargo to and from commercial vessels. Port facilities include berths, container gantry cranes, storage facilities, and road and rail transport from and to the port. Port services include traffic control, navigation services, storage and logistics.
- *Road* refers to primary road networks used for supra-regional and transit traffic. The infrastructure network includes roads, tunnels, bridges, and is typically a closed system with connections to secondary road networks. Road services consist of giving agents access to a primary road network used for passenger and freight transportation.
- *Railways* refers to railroad networks used for supra-regional and transit traffic. The infrastructure network includes roads, tunnels, bridges, and is typically a closed system with connections to road networks. Railways services comprise the transportation of passengers and freight over land. Railways also includes Urban Mass Transit Transportation (UMT) which primarily refers to passengers transportation in urban environments.

- The *Water* sector comprises water transportation through distribution networks and waste water systems (e.g., water catchment facilities and sewage systems). Water services include the transportation of water and distribution to final consumers, as well as storage, water catchment, and waste water treatment. In contrast to the Energy and Transport sectors, a subsector disaggregation of the sector Water is not useful because a single supplier generally provides the physical infrastructure assets and services.

- The *Information and Communication Technology (ICT)* sector refers to all physical networks required for the transmission of data, such as copper cable networks, fiber networks, and wireless technologies utilizing the radio frequency spectrum (e.g., microwave and satellite). ICT infrastructure services include the entire spectrum on which broadcasting and telecommunication services are based.

2.3 Liquidity Analysis (LA)

The NMX Infrastructure Index Series are adjusted for liquidity where liquidity is defined as how often and in what volume an instrument is traded on the underlying primary stock exchange. The rationale behind the liquidity analysis is to ensure that the NMX indices are representative and replicable. For the liquidity analysis annual averages are used for every potential LPX index member[7]. Specifically, the following ratios are calculated within the framework of the liquidity analysis:

Ratios

The specific liquidity ratios are:

- a maximum average bid-ask spread (BAS)
- an average minimum market capitalization [mEUR] (MV)
- an average minimum trading volume per trading day measured relative to the market capitalization (TV)
- a minimum trade continuity (CT)

Criteria

The following table summarizes the criteria that are applied to each of the NMX indices. In the event that a company does not fulfill one of the criteria, the company is not eligible for inclusion in the respective index, which means that the criteria are so-called "KO criteria".

Table 4: Ratios of Liquidity Analysis

Index Name	BAS[a]	MV[a]	TV[a]	CT[a]	Ranking[a]
NMX Composite	2.0%	EUR 500m	0.10%	95%	MC
NMX30 Infrastructure Global	2.0%	EUR 1000m	0.10%	95%	MC
NMX30 Infrastructure Global US	2.0%	EUR 1000m	0.10%	95%	MC
NMX Asia	2.0%	EUR 500m	0.10%	95%	MC
NMX Europe	2.0%	EUR 500m	0.10%	95%	MC
NMX America	2.0%	EUR 500m	0.10%	95%	MC

[a] LPX reserves the right to deviate from the liquidity thresholds as depicted in Table 4, in case of minor violations in order to minimize fluctuations in the index. LPX reserves the right to consult stakeholders regarding the current liquidity of index constituent securities.
[b] Ranking that is oriented to the market capitalization (at the time of the liquidity analysis) refers to Ranking MC.

Ranking

Generally, the NMX Infrastructure Index Series are ranked according to the market capitalization of the underlying constituents. Specifically, the companies that fulfil the liquidity criteria as outlined in Table 2.3 are brought into a ranking list according to their market capitalization (at the time of the liquidity analysis).

[7] The use of annual averages implies that a minimum trading history of one year is a prerequisite for an instrument to become a potential eligible member of a NMX index.

Diversification Rules

The NMX index construction methodology ensures a high degree of infrastructure sector diversification. Specifically, the following diversification rules apply for the NMX Composite index and the NMX30 Infrastructure Global index. The diversification rules apply one week prior to each ordinary chaining date as outlined in Table 1.

- The NMX Composite consists of the 80 largest instruments, which are part of the base universe set forth in Section 2.2. The following infrastructure sector bounds apply (i) by number of constituents and (ii) by weighting one week prior to each ordinary chaining date. The infrastructure sectors are outlined in Table 3. First, one week prior to each ordinary chaining date, the number of constituents is determined in such a way that the following infrastructure sector bounds hold by number of constituents in percentages: 40% Energy, 30% Transport, 20% Water and 10% ICT.[8] Second, the market capitalization of every constituent, which is part of a specific infrastructure sector cluster (i.e., Energy, Transport, Water, ICT) is capped proportionally in such a way that the following aggregated infrastructure sector weights hold (one week prior) to each ordinary chaining date: 40% Energy, 30% Transport, 20% Water and 10% ICT.

- The following infrastructure sector bounds apply for the NMX30 Infrastructure Global Index in accordance to the infrastructure sectors outlined in Table 3. The composition of the NMX30 Infrastructure Global index is determined in such a way that every *infrastructure sector* represents a minimum of 10% and maximum of 50% of total constituents. Furthermore, it is ensured that for every infrastructure sector cluster (i.e., Energy, Transport, Water, ICT) a minimum of 20% of *infrastructure subsector* constituents are included.

- The NMX regional indices are constructed on the basis of the NMX Composite Index according to the regional affiliation of the constituents. According to Table 1, the number of constituents for the NMX regional indices is fixed. In case the fixed number of constituents is not met for a regional NMX index based on the NMX Composite Index, constituents with the highest rank from the NMX base universe enter the respective index until the fixed number of constituents is reached.

Time and Frequency of the Liquidity Analysis

The liquidity analysis is carried out twice a year on the first trading day in December and June and serves as a basis for the composition of the NMX Infrastructure Index Series.

[8] In case there is not a sufficient number of constituents of an infrastructure sector cluster, a successor is chosen from another infrastructure sector cluster.

Ordinary Adjustment

An ordinary adjustment of the NMX indices takes place according to the predefined chaining dates for the NMX indices as outlined in Table 1 on a half-yearly (quarterly) basis based on closing prices of the respective chaining date. The effective date of the new composition is, by definition, one trading day after the chaining date. Companies that no longer fulfil one of the "KO criteria" as outlined in Table 2.3 are replaced. In such a case, the successor is the company with the highest rank better than "n"[9] that was not previously included in the index, where "n" indicates the number of companies in the respective index.

Table 5: Ranking-Supported Adjustments

Index	**R1**	**R2**	**R3**
NMX Composite	$[n \times 1.2]$	n	$[\frac{n}{2}]$
NMX30 Infrastructure Global	$[n \times 1.2]$	n	$[\frac{n}{2}]$
NMX30 Infrastructure Global US	$[n \times 1.2]$	n	$[\frac{n}{2}]$
NMX Infrastructure Asia	$[n \times 1.2]$	n	$[\frac{n}{2}]$
NMX Infrastructure Europe	$[n \times 1.2]$	n	$[\frac{n}{2}]$
NMX Infrastructure America	$[n \times 1.2]$	n	$[\frac{n}{2}]$

A constituent of the index that is ranked in the respective ranking list at R1 or worse is replaced, assuming a constituent exists, which is ranked at R2 or better in the ranking list. A non-index-constituent that is ranked at R3 or better in the respective ranking list is included in the index, if a company currently in the index has a lower rank than R2.

At the end of the process of ordinary adjustments, there is a new constituent list for the respective index. At the same time, a new ranking list of possible successors is created. These ranking lists are created using the methodology as outlined in Table 2.3, i.e., those companies (not currently in the index) with the highest market capitalization get the top rank and are therefore the first candidates to advance in case of an ordinary adjustment.

[9] [x] denotes the largest integer smaller than x.

Extraordinary Adjustment

Adjustments due to extraordinary events will also be carried out. LPX AG reserves the right to deviate from the said rules for ordinary or extraordinary adjustment in exceptional cases. The adjustments applied will be communicated in advance via appropriate channels.

Constituent Replacement due to a Delisting

Constituents that have applied for a de-listing at an exchange or for whom bankruptcy proceedings have been adjudicated will be excluded from the index effective not later the day when the security is last traded at an exchange. In case the security is removed before that date, LPX AG will communicate the change in index composition in advance via appropriate channels. The company with the highest rank of the successor list will succeed in the index as outlined in Section 2.3.

Merger of Two Index Constituents

If an existing index constituent is acquired for eligible shares (or a combination of eligible shares and cash) by another index constituent, the existing constituent is deleted (not later than) on the effective date of acquisition. The company with the highest rank of the successor list will succeed in the index as outlined in Section 2.3.

Merger of an Index Constituent with a Non-Index Constituent

If an existing index constituent is acquired for eligible shares (or a combination of eligible shares and cash) by a quoted non-constituent, the merged company is continued in the index if eligible in all other respects of this Guide. If the requirements defined in Section 2.1 are not fulfilled, the merged company is replaced by the company with the highest rank of the successor list.

Spin-off

If an existing index constituent spins off a company, the spun-off company enters the index for a period of minimum 5 trading days. After that period the company will be removed from the index or, in case all criteria are met, will remain in the index.

3 Calculation Methods

3.1 Index Formulae (Single Stock Distribution Reinvestment)

The calculation of the NMX indices follows the following formulae:

$$I_t^{TR} = k_t^{TR} \times \frac{\sum_{i=1}^{n_t} p_{i,t} \times w_{i,t} \times aa_{i,t} \times c_{i,t}^{TR}}{\sum_{i=1}^{n_0} p_{i,0} \times aa_{i,0} \times w_{i,0}} \times Basis_0^{TR} \tag{1}$$

$$I_t^{PI} = k_t^{PI} \times \frac{\sum_{i=1}^{n_t} p_{i,t} \times w_{i,t} \times aa_{i,t} \times c_{i,t}^{PI}}{\sum_{i=1}^{n_0} p_{i,0} \times aa_{i,0} \times w_{i,0}} \times Basis_0^{PI} \tag{2}$$

TR, PI	Total Return, Price Index
I_t^{TR}, I_t^{PI}	Index level (TR, PI)
k	Index-specific chaining factor
n	Number of constituents in the index
p	Price in local currency
w	Exchange rate
aa	Capped number of shares (constant between chaining dates)
c	Current adjustment factor
Basis	Index-specific constant value
t	Index of time (daily)
i	Index of index constituents

3.2 Cap

One week before each chaining date, the weight of any constituent (i.e., the number of shares aa_i) is determined in such a way that "Current CAP" holds for every index constituent, as defined in Table 1. Between each chaining date, which occurs semi-annually or quarterly, depending on the respective index, aa_i remains constant. This methodology is applied to all NMX index series except for the NMX30 Infrastructure Global US, which is treated in accordance to the methodology as described in Section 3.3. The chaining dates are outlined in Table 1.

3.3 Free-float Cap (FFC)

For the NMX30 Infrastructure US index an extended capping and ranking methodology applies. Prior to each ordinary chaining, which is conducted on a quarterly basis, the "Free Float Factor" for each index constituent is determined based on publicly available information. The minimum Free Float Factor for an eligible constituent instrument is 20%. The free-float adjusted market capitalization is determined for each index constituent security and ranked in descending order. In case that the sum of weights of the index constituents that show a weight greater than 4.8% exceeds 45% (hereinafter referred to as "Limit"), the weight of the first stock, which causes the breach of the Limit, is capped to 4.5%. This process is conducted iteratively until the Limit holds.

3.4 Corporate Actions

For the calculation of the NMX indices the following corporate actions are taken into account. The adjustment factors are defined for both price (PI) and total return (TR) index. The following formulae are applied to determine the adjustment factors:

$$c_{i,t}^{TR} = a_{i,t}^{TR} \times b_{i,t}^{TR} \times e_{i,t}^{TR} \times f_{i,t}^{TR} \tag{3}$$

$$c_{i,t}^{PI} = a_{i,t}^{PI} \times b_{i,t}^{PI} \times e_{i,t}^{PI} \times f_{i,t}^{PI} \tag{4}$$

$$e_{i,t} = b_{i,t}^{PI} \times e_{i,t}^{PI} \times f_{i,t}^{PI} \tag{5}$$

where the auxiliary factors a, b, e, f, for both the price (PI) and total return (TR) version are defined in the following paragraphs.

Cash Dividends and Special Distributions

Cash dividends include regular dividends (denoted by and expressed per share on the ex date), as well as special cash dividends. Other special distributions include bonus shares as well as spin-offs (denoted by SD and expressed per share on the ex date). For the TR indices all cash dividends and special distributions are included in the calculation. In contrast, for the PI indices only the special distributions are considered. The following formulae apply to the auxiliary factor a:

$$a_{i,t}^{TR} = \begin{cases} 1, & \text{if } t = 1 \\ a_{i,t-1}^{TR} & \text{if } t \neq k, D_{i,t} = 0, SD_{i,t} = 0 \\ (1 + \frac{(1-Q)D_{i,t}}{p_{i,t-1}-(1-Q)D_{i,t}}) \times a_{i,t-1}^{TR} \text{ or } (1 + \frac{(1-Q)SD_{i,t}}{p_{i,t-1}-(1-Q)SD_{i,t}}) \times a_{i,t-1}^{TR}, & \text{if } t \neq k, D_{i,t} \neq 0 \text{ or } SD_{i,t} \neq 0 \end{cases} \tag{6}$$

$$a_{i,t}^{PI} = \begin{cases} 1, & \text{if } t = 1 \\ a_{i,t-1}^{PI} & \text{if } t \neq k, SD_{i,t} = 0 \\ (1 + \frac{(1-Q)SD_{i,t}}{p_{i,t-1}-(1-Q)SD_{i,t}}) \times a_{i,t-1}^{PI} \text{ or } (1 + \frac{(1-Q)SD_{i,t}}{p_{i,t-1}-(1-Q)SD_{i,t}}) \times a_{i,t-1}^{TR}, & \text{if } t \neq k, SD_{i,t} \neq 0 \end{cases} \tag{7}$$

with

k	Index of chaining dates
t	Index of time (daily)
i	Index of constituents

Stock Splits and Reverse Splits

This section does not only include stock splits, but also reverse splits (stock consolidation). The split ratio is denoted by SPR on the ex date. The auxiliary adjustment factor b is calculated according to the following formulae

$$b_{i,t}^{TR} = \begin{cases} 1, & \text{if } t = 1 \\ b_{i,t-1}^{TR} & \text{if } t \neq k, SPR_{i,t} = 1 \\ SPR_{i,t} \times b_{t,t-1}^{TR} & \text{if } t \neq k, SPR_{i,t} \neq 0 \end{cases} \tag{8}$$

$$b_{i,t}^{PI} = b_{i,t}^{TR} \text{ for all i,t} \tag{9}$$

Table 6: Example: Subscription Rights

The following table outlines the index treatment of subscription rights of constituents instruments.

	Formulae	**Constituent**
Shares to be issued	(1)	1000
Old number of shares	(2)	3000
Share price$_{t-1}$	(3)	100
Issue price of new shares	(4)	80
Subscription ratio	(5)	3
Expected share price after the issue	(6) = [(1) × (4) + (2) × (3)] ÷ [(1) + (2)]	95
Value of subscription right (share price dilution)	(7) = [(3) − (6)]	5
Number of shares in the index	(8)	3000
Value of subscription rights	(9) = [(7) × (8)]	15000
Number of additional shares	(10) = [(9) ÷ (6)]	157.89
Correction factor	(11) = [[(10) + (8)] ÷ (8)	1.052632

Bonus Shares of the same Company

Bonus shares from the same company are treated equivalently as a stock split. The variable B denotes the number of bonus shares per share held on the ex date. The auxiliary adjustment factor b is calculated according to the following formulae

$$e_{i,t}^{TR} = \begin{cases} 1, & \text{if } t = k \\ e_{i,t-1}^{TR} & \text{if } t \neq k, B_{i,t} = 0 \\ (1 + B_{i,t}) \times e_{i,t-1}^{TR} & \text{if } t \neq k, B_{i,t} \neq 0 \end{cases} \tag{10}$$

$$e_{i,t}^{PI} = e_{i,t}^{TR} \text{ for all i,t} \tag{11}$$

Subscription Rights

Subscription rights are not taken into account by LPX AG until the ex date, where the value of the subscription rights is reinvested in the company according to the subscription rate ratio SRR leading to the same amount of invested capital as before the transaction. The auxiliary adjustment factor f is calculated according to the following formulae

$$f_{i,t}^{TR} = \begin{cases} 1, & \text{if } t = k \\ f_{i,t-1}^{TR} & \text{if } t \neq k, SRR_{i,t} = 1 \\ SRR_{i,t} \times f_{i,t-1}^{TR} & \text{if } t \neq k, SRR_{i,t} \neq 0 \end{cases} \tag{12}$$

$$f_{i,t}^{PI} = f_{i,t}^{TR} \text{ for all i,t} \tag{13}$$

A representative example is presented below:

Other Corporate Actions

Any corporate actions, which have not been outlined in the aforementioned paragraphs, but which will be taken into account for the calculation of the NMX indices, are communicated in advance via appropriate channels.

4 Chaining

An overview of the ordinary chaining dates of the NMX indices is provided in Table 1. Due to extraordinary corporate events as outlined in Section 2.3 there may also be extraordinary chaining, which follow the same methodology as for the ordinary chaining. On every calculation day, LPX AG determines a chaining factor. The index-specific chaining factor K is calculated as follows:

$$k_t^{TR} = \begin{cases} 1, & \text{if } t = 0 \\ \frac{TRIndex}{ZW_{t=j}} & \text{if } t = j+1 \\ k_{t-1}^{TR} & \text{if } t \neq j+1, t \neq 0 \end{cases} \tag{14}$$

$$k_t^{PI} = \begin{cases} 1, & \text{if } t = 0 \\ \frac{PIIndex}{ZW_{t=j}} & \text{if } t = j+1 \\ k_{t-1}^{PI} & \text{if } t \neq j+1, t \neq 0 \end{cases} \tag{15}$$

The index is calculated with the old index composition at a chaining date, while the intermediate value ZW is calculated with the new index composition. The intermediate value is calculated as follows:

$$ZW_{t=j}^{TR} = \frac{\sum_{i=1}^{n_t} p_{i,t} \times w_{i,t} \times aa_{i,t}}{\sum_{i=1}^{n_t} p_{i,0} \times w_{i,0} \times aa_{i,0}} \times Basis_0^{TR} \tag{16}$$

$$ZW_{t=j}^{PI} = \frac{\sum_{i=1}^{n_t} p_{i,t} \times w_{i,t} \times aa_{i,t}}{\sum_{i=1}^{n_t} p_{i,0} \times w_{i,0} aa_{i,0}} \times Basis_0^{PI} \tag{17}$$

5 Amendments

i The design and calculation methodology of the NMX Infrastructure Index Series is overseen by index oversight on a regular basis at least once per year. The Index Oversight Directive is available upon request to all stakeholders. In case of a revision of the Guide, all stakeholders will be informed as soon as possible. The Guide is publicly available on the LPX corporate website.

ii For complaints please contact complaints@lpx-group.com. Details concerning the LPX complaint process can be obtained upon request.

6 Data Vendor Codes

The NMX indices are available via major third party data providers. An overview on the various data vendor codes is depicted in the following table.

Table 7: Data Vendor Codes

Total Return TR						
	CCY	**Base Date**	**Valor CH**	**ISIN**	**Bloomberg**	**Reuters**
NMX Composite TR	EUR	31.12.98	3221286	CH0032212869	NMXICGTR	.NMXICGT
NMX Composite TR (CHF)	CHF	31.12.98	3221359	CH0032213594	NMXICGTC	
NMX30 TR	EUR	31.12.98	3221370	CH0032213701	NMXI30TR	.NMXI30T
NMX30 TR (CHF)	CHF	31.12.98	3221377	CH0032213776	NMXI30TC	
NMX30 USD TR	USD	31.12.98		DE000SLA4XT7	NMX30UT	.NMX30UT
NMX Asia TR	EUR	31.12.98	3221385	CH0032213859	NMXIASTR	.NMXIAST
NMX Asia TR (CHF)	CHF	31.12.98	3221392	CH0032213925	NMXIASTC	
NMX Europe TR	EUR	31.12.98	3221394	CH0032213941	NMXIEUTR	.NMXEUT
NMX Europe TR (CHF)	CHF	31.12.98	3221401	CH0032214014	NMXIEUTC	
NMX America TR	EUR	31.12.98	3221424	CH0032214246	NMXIAMTR	.NMXIAMT
NMX America TR (CHF)	CHF	31.12.98	3221428	CH0032214287	NMXIAMTC	
Price Index PI						
	CCY	**Base Date**	**Valor CH**	**ISIN**	**Bloomberg**	**Reuters**
NMX Composite PI	EUR	31.12.98	3221433	CH0032214337	NMXICGPI	.NMXICGP
NMX Composite PI (CHF)	CHF	31.12.98	3221438	CH0032214386	NMXICGPC	
NMX30 PI	EUR	31.12.98	3221444	CH0032214444	NMXI30PI	.NMXI30P
NMX30 PI (CHF)	CHF	31.12.98	3221446	CH0032214469	NMXI30PC	
NMX30 USD PI	USD	31.12.98		DE000SLA4XP5	NMX30UP	.NMX30UP
NMX Asia PI	EUR	31.12.98	3221450	CH0032214501	NMXIASPI	.NMXIASP
NMX Asia PI (CHF)	CHF	31.12.98	3221453	CH0032214535	NMXIASPC	
NMX Europe PI	EUR	31.12.98	3221457	CH0032214576	NMXIEUPI	.NMXIEUP
NMX Europe PI (CHF)	CHF	31.12.98	3221460	CH0032214600	NMXIEUPC	
NMX America PI	EUR	31.12.98	3221491	CH0032214915	NMXIAMPI	.NMXIAMP
NMX America PI (CHF)	CHF	31.12.98	3221493	CH0032214931	NMXIAMPC	

7 Appendix

7.1 ESG Factors

Explanation of how ESG factors are reflected in the key elements of the benchmark methodology.

Table 8: EU Required ESG Disclosures

Item	Item Description	Disclosure
1	Name of the benchmark administrator	LPX AG
2	Type of benchmark or family of benchmarks	n/a
3	Name of the benchmark or family of benchmarks	Benchmark Statement NMX Indices
4	Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	NO
	Last Update	October 2023
	First Publication	January 2021

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