STOXX Ltd.

Response
to
Public Consultation

by the European Commission on
the Regulation of Indices

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INNOVATIVE. GLOBAL. INDICES.

STOXX is pleased to have the opportunity to submit comments to the European Commission in response to their "CONSULTATION DOCUMENT ON THE REGULATION OF INDICES – A Possible Framework for the Regulation of the Production and Use of Indices serving as Benchmarks in Financial and other Contracts".

STOXX Limited is an established index specialist with a European heritage. The launch of the first STOXX® indices in 1998, including the EURO STOXX 50® index, marked the beginning of the STOXX business activities. Since that time, STOXX has been continuously expanding its portfolio of indices, and now operates on a global level, across all asset classes. STOXX Limited is committed to delivering its high-quality, reliable and trusted index offerings to its global client base.

Our indices are licensed to the world's largest issuers of financial products, capital owners and asset managers as well as to more than 400 companies around the world, and are used not only as underlyings for financial products such as exchange-traded funds (ETFs), futures and options, and structured products, but also for risk and performance measurement.

Indices fulfill a number of important roles in the financial markets. Indices in general have come under increased scrutiny despite the fact that the alleged manipulation of LIBOR was related to a specific panel-based index with intransparent pricing sources. Neutral and unbiased market information is key for a functioning capital market. We fully support efforts to strengthen the robustness and integrity of financial indices provided in the context of offering financial products.

We also support initiatives that address concerns about subjective indices or panel-based indicators and welcome policy orientations and the potential implementation of standards to guide these specific activities. We support the Commission's initiative of consulting widely in order to identify the necessary safeguards and framework for the provision of indices.

In addition to the detailed answers on the questions asked, we deem it supportive to provide a framework and introduction. In summary, we distinguish between what we call "objective indices" – fulfilling a clear set of criteria which prevents conflicts of interests and manipulation – and "subjective indices". We argue that objective indices do not require regulation due to their specific design. Furthermore, we argue that subjective indices are best provided by neutral index providers with the relevant skills and infrastructure and independent of market participants and thus not exposed to conflicts of interest.

The indices of neutral index providers such as STOXX are and have to be of high quality, are produced without conflicts of interests and are of the strictest neutrality to all market participants. Without these qualities the neutral index provider would lose its reputation and therefore its customers.

Finally, we would like to emphasize that index providers act globally both with respect to their products as well as to their client base (and partially also with respect to their operational set-up). It will therefore be important that any future regulatory action at EU level avoids any potential loopholes or room for regulatory arbitrage by taking into account initiatives at global level.

We would welcome the opportunity to discuss the content of our submission with you further. Should you require any additional information in the meantime, please contact: Dr. Hartmut Graf; CEO; STOXX Ltd.; Selnaustrasse 30; 8021 Zurich; Switzerland; Hartmut.Graf@stoxx.com.

We are happy for our comments to be made public. Our Transparency Register ID number is 617126110071-01.

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1. INTRODUCTION

The function of financial indices is not limited to their direct use in the financial products markets only: they fulfill other important roles in the overall macro-economic environment:

- Only with proper and reliable indices is a rational, efficient and transparent global capital allocation possible for financial investors. Efficient capital allocation minimizes the capital costs for companies and thus spurs global economic growth.
- Indices allow companies with global business activities an easy and transparent macro-hedging of their business exposure to certain countries, regions or industry sectors.
- Indices (through financial products issued on them) enable a broader range of investors, including retail investors, to access entire markets and advanced asset allocation strategies. They can hereby diversify their investments and thus reduce their investment risk.

Although provision of information was the primary reason for establishing the first indices, today's prominent and well-known indices usually fulfill three main purposes often simultaneously:

- As a source of information or as a "**benchmark**" against which to assess the performance of a given or hypothetical financial investment.
- Fulfilling an "**underlying**" function, in which the index provides a reference price for tradable investment products such as exchange traded funds ("ETFs"), structured products, or derivatives.
- Providing aggregated **information** to the public and investors on certain markets as a whole or on certain market segments as a means of supportive information on economic development.

1.1. DEFINITIONS AND GENERAL VIEWS

1.1.1. DEFINITION OF AN "INDEX"

The term "index" as used here shall have the following meaning:
An "**index**" is an aggregation of market data of financial instruments or acquirable assets which are used either as a basis for financial products ("underlying") or to evaluate financial investments ("benchmark").

The key element of our definition is the foundation of indices on either market data of financial instruments or acquirable assets. This relationship allows the index to be fully replicated by directly investing in the respective financial instruments or acquirable assets. Thus, only those concepts where full direct replication is possible qualify as an index. The second constitutive element of indices is their usage in the financial services industry. Again, we consider only those statistical figures composed of market data as indices, which are used for the specific purposes of being an underlying or a benchmark.

This definition is largely aligned with the definition proposed by the Commission:

> *"Benchmark" means any commercial index or published figure calculated by the application of a formula to the value of one or more underlying assets or prices, including estimated prices, interest rates or other values, or surveys by reference to which the amount payable under a financial instrument is determined."*

In both cases the specific ingoing data are the constituting element of the definition, i.e. the "indices"/ "benchmarks" are based on assets which could be clearly valued. However, we also deem it appropriate in our definition to define the nature of such assets more specifically as financial instruments. Only then is it possible to directly replicate the index by directly acquiring exactly those assets the index is composed of. This is highly advantageous, as only in this case could exposure to the index be fully hedged without additional risks.

All other aggregations of market data or statistical figures will be referred to as "**other informational instruments**". Those other informational instruments are made up of any data except from financial instruments, e.g. industry or corporate news. This is a continuously growing field as the financial markets' information sources become more and more complex, but will not be considered in our response here.

The table below shows the difference between "indices" and "other informational instruments" in terms of their:

- **Main purpose:** What are the indices used for? Do the indices have a direct link to the financial markets? Could the index portfolio be fully replicated by financial products?
- **Data quality:** How transparent are the ingoing data? Are the data objective or subjective? How timely are the data?
- **Methodology:** Is the index calculation transparent? Does it contain fees? Does the calculation contain discretionary elements? Is the index calculation continuous?

Main purpose	Data quality		Methodology	Examples	Category
Financial (underlying or benchmark)	Liquid, traded prices, firm quotes	**AND**	Fully rules-based and transparent; continuous calculation	EURO STOXX 50	**Objective indices**
Financial (underlying or benchmark)	Unregulated and indicative quotes, estimates, etc.	**AND/ OR**	Discretionary elements predominant; not entirely representative	LIBOR	**Subjective indices**
Informational	Any source other than prices for financial instruments (either transparent, regulated or unregulated, indicative)	**AND**	Any methodology	Consumer sentiment index; unemployment rates	**Other informational instruments**

For clarification, please note that objective indices need to fulfill both the criteria for data quality and for methodology simultaneously.

1.1.2. DIFFERENTIATION BETWEEN OBJECTIVE INDICES AND SUBJECTIVE INDICES

The broad range of figures used as underlyings and benchmarks differ widely depending on their principles of construction, maintenance and objectivity. As a result indices can be broken down into two distinct categories: objective and subjective indices.

Objective indices fulfill a clear set of criteria (simultaneously) as follows:

- **Possibility of full replication:** the index should be fully replicable by existing financial instruments without significant tracking errors. This requires that the same performance of the index could be obtained by acquiring all index components according to the methodology of the index.
- **High quality data:** One prerequisite for full replication is the use of either traded prices of liquid instruments or prices from firm quotes from a regulated trading venue (without conflicts of interest), which are fully executable at any time. This is required to ensure that market participants can actually adjust their portfolios at the price levels used in the index at all times. The price source for the index should come from the price determining venue and – in case this is not biunique – have sufficient liquidity in the corresponding asset. Only those prices

which provide indiscriminate access to all market participants, and without distortions, should be used. For certain indices there might be added value in having all prices from one venue in order to determine high quality and highly liquid settlement prices based on the same methodology and homogenous data quality and standards.

- **Adequate methodology:** It is of paramount importance to have a fully rules-based methodology that is published in a completely transparent rule book. Discretionary elements should not be part of the methodology. This methodology should reflect the relevant market or the relevant strategy accordingly and with the required level of sophistication. In addition, the methodology should cover an appropriate checking of ingoing and outgoing data to avoid the inclusion of any mispricing. Furthermore, a continuous index calculation hinders exercise of influence on the index values as a potential manipulation might need to occur over a longer time period.
- **Inherent integrity:** The index methodology and calculation should be free of conflicts of interest and guarantee a clear split between the providers of indices, the sources of pricing for the instruments in the index and parties being (directly or indirectly) economically exposed to the resulting index values. The following cases might require special consideration:
  - If the pricing sources and the provider of indices are related, the prices should be sourced from regulated trading venues only.
  - Trading and investing in indices while in parallel providing prices for the index calculation would violate the required integrity.
- **Continuous quality controls:** The inbound and outbound information should be filtered according to the methodology. Similarly the resulting index values should be filtered or flagged. In addition, index calculations should be monitored at all times.
- **High availability:** Given their importance as underlyings, objective indices need to be available to professional investors and product providers. Systems used to provide index values should follow the highest technical standards including fail-over hot-stand-by technology.
- **Appropriate governance:** Only fully rules-based indices fall under the definition of objective indices. However, as markets are evolving and external factors change over time, a process needs to be in place to adjust the rules, and this could involve independent advisory boards and appropriate publication mechanisms for the changes.

By contrast, all indices which do not fulfill at least one of the criteria above are categorized as **subjective indices**.

The table below shows a detailed comparison of objective and subjective indices.

Category	Subjective indices		Objective indices
Classification	» Artificial indices	» “LIBOR”-like	» “EURO STOXX 50”-like
Examples	» Hedge fund indices based on intransparent prices from in-house platforms	» LIBOR » Fixed income indices based on indicative quotes	» EURO STOXX 50
Replicability	» Not directly replicable	» Not directly replicable, approximate replication possible	» Directly replicable

Data quality			
» Inbound price sources	» Non-transparent sources, e.g. in-house and non-publicly available prices used by self-indexers	» Indicative panel consultation » No obligations attached to price submission	» Transaction based prices from regulated market venues » Prices based on binding and regulated transactions or quotes
» Calculation parameters	» No further transparency on additional information used for index calculation » Examples might include in-house determined transaction fees	» (Similar to objective indices)	» All further information used taken from publicly available sources and both with ex-post and ex-ante transparency
Methodology			
» Index methodology	Anything less than for the “LIBOR-like” indices; in particular » Incomplete methodology with room for massive discretionary interactions	Anything less than for the “EURO STOXX 50-like” indices, in particular: » Discretionary elements » Simple calculation methods » Unavailability of filters	» Fully rule-based concepts » No discretionary elements in methodology on ordinary index adjustments and clear governance rules for any extraordinary event » No fee elements included (with the exception of fees for replication) » Application of filters to ensure data quality
» Publication of rule books	» Not published or not published completely » Not freely accessible	» Published completely » Freely accessible	» Published completely » Freely accessible » Replication of the target market or strategy are stated aims
Inherent integrity	» Combination of index provider, user (issuer) and price provider	» Combination of user (issuer) and price provider	» Clear (organizational) split between index provider and user (issuer) – or even no link » Independent price sources » No conflicts of interest
Quality controls	» None	» None	» Extensive in- and outbound filtering
Governance	» None	» None	» Independent advisory boards
Availability	» Not guaranteed	» ?	» Ensured

Requirements of objective indices:			
- Full replicability	☒	☒	☑
- High data quality	☒	☒	☑
- Adequate metho-dology	☒	☑	☑
- Inherent integrity	☒	☒	☑
- Continuous quality control	☒	☑☒	☑
- High availability	☒	☑☒	☑

1.1.3. THE IMPORTANCE OF INHERENT INTEGRITY

As outlined above, certain index providers do, by their specific set-up and focus, guarantee safeguards for index maintenance. This is particularly true where the provider or any associated affiliate does not benefit directly from the provided index levels. Indeed any form of manipulation of their indices would endanger the trust in its products which is a key asset for independent index providers. The indices of independent index providers such as STOXX are and have to be of high quality, produced without conflicts of interests and of the strictest neutrality to all market participants, otherwise the index provider would lose its reputation and therefore its customers.

In contrast, the absence of this split between provider of prices/provider of indices and the economic beneficiary of the index levels was a key issue in the LIBOR case.

1.1.4. THE IMPORTANCE OF INGOING DATA

As is clear from the table above, indices differ according to the type of ingoing data being used. In principle, there are three different types to distinguish:

» Publicly available **traded prices or firm quotes** sourced from a liquid and regulated market. Traded prices from a regulated market do not require explicit explanations. A relevant example would be equity indices like the EURO STOXX 50 being calculated with the traded prices from the leading local regulated exchanges in Europe. Firm quotes from regulated markets are defined as being executable at all times. An example of the usage of firm quotes is the process for including new components in the eb.rexx fixed income indices, where binding ask prices from the regulated Eurex Bonds platform are used.
» Any other **indicative pricing** which could be non-firm quotes or estimates obtained systematically or randomly. An example would be the LIBOR. However, indices for market segments currently dominated by off-exchange trading resulting in non-transparent pricings also fall into this category. One prominent example would be many fixed income indices (if they are not based on traded prices).
» **Any other data** may also be used as a basis for the other informational instruments. Those figures might be obtained by surveys, statistical census or individual measurements. Examples here are unemployment rates, inflation rates or consumer sentiment data. In principle, there is no limitation for any such figures.

1.2. RELEVANCE OF THE EXISTING LEGAL FRAMEWORK

Index providers and data providers (that are their sources of data for the purpose of index calculations) do not operate in an unregulated environment. On the one hand, there are the UCITS regulations that require entirely rules-based indices. On the other hand, index providers have multiple intellectual property rights which need to be considered in this context as well.

1.2.1. UCITS REQUIRES RULES-BASED INDICES

According to Article 53 of the UCITS IV Directive (2009/65/EC), an eligible index for UCITS needs to be sufficiently diversified with respect to its composition; the index needs to represent an adequate benchmark for the market to which it refers; and it needs to be published in an appropriate manner. The Eligible Assets Directive (2007/16/EC) defines the aforementioned criteria in more detail. In particular, Article 9 sets out that the index measures the performance of a representative group of underlyings in a relevant and appropriate way.
In addition, financial indices must reflect their corresponding markets following transparent and publicly available criteria and must be based on sufficiently liquid underlyings. The ESMA Guidelines contain more detailed provisions. Amongst others, paragraph 54 sets out that a UCITS should only invest in financial indices whose methodology is based on a set of pre-determined and objective criteria. In other words, these rules do not allow for discretionary decisions of an index provider which would leave room for manipulations.

If an index provider wants to market its products broadly, then it must make sure that its indices comply with these rules in order to be eligible as underlying for financial products that are marketed under UCITS.

1.2.2. INDICES ARE PROTECTED BY LAW

Indices are subject to multiple intellectual property rights, including, but not limited to copyrights, data base protection rights, trademark rights etc. and thus do not qualify as a “public good”. The European Commission and also the G8 governments have put much effort into promoting their knowledge-based economies through strengthening intellectual property rights (see for example the respective G8 statement at http://www.whitehouse.gov/the-press-office/2012/05/19/statement-g-8-leaders-global-economy).

1.3. NEUTRAL INDEX PROVIDERS

There are in principle no obstacles to providing indices to the market place and as a result a broader group of providers develops and maintains indices. However, we believe that one group in particular is dedicated to providing high quality indices and we define these as **neutral index providers**: separate organizational units with the primary objective of developing, calculating, maintaining, and marketing indices for profit to organizationally un-related third parties. Those neutral index providers are in particular independent from market participants (who trade index related products or invest into index related products).

For clarification, providers who
» predominantly provide indices for the use of organizationally-related units or issuers of products (which benefit from the value of the indices); or
» predominantly calculate and maintain indices on behalf of one specific market participant only
would not satisfy our definition above and are therefore not considered as neutral index providers. The main criteria are that the neutral index providers generate income from licensing their indices and **do not benefit from the value of the indices they provide**. For the avoidance of doubt, infrastructure providers who only enable trading or investing by providing technical platforms have no economic relationship to the index performance and are thus not included in the definition of the market participants above.

Any potential limiting of the activities of neutral index providers may bring undesired costs and potential negative impacts on the market place which would be undesirable for the following reasons:

1. Neutral index providers do **not have conflicts of interest** such as providing information for the index calculation and indirectly benefitting from specific index values.

- » All index methodology and calculation related decisions are taken independently by the index provider without any direct influence being granted to clients or other third parties
- » In addition neutral index providers do not generate revenues from index membership fees, also ensuring independence in the selection of the components of an index

Only neutral index providers will **guarantee unbiased indices** (like the objective indices defined above).

In the absence of neutral index providers the issuers of financial products will rely exclusively on indices from associated parties provided for their own usage only. **Less competition in the products market** will occur as a consequence, as the products in the market will no longer be directly comparable for the end investor – at least not without a significant amount of sophisticated research.

Subsequently more differently priced but rather undistinguishable products will appear without the possibility of comparison of concept and pricing. This will harm end investors by reducing their possibilities for un-biased tools for a broader diversification, and thus risk reduction, as well as reducing market transparency. In addition, broader licensing of those proprietary concepts by product sponsors does not currently exist and will not exist in the future. In consequence, those indices will be used predominantly for the purpose of one specific product sponsor and not for the benefit of end investors.

2. Neutral index **providers are committed, out of their own business interest, to achieving the highest quality of index calculation** and maintenance; only a for-profit index business allows the **participation** of the entire market including the retail market **in state-of-the-art innovations**.
   - » As their main nature of business is the provision of indices, neutral index providers continuously improve their operational processes to preserve their competitive position.
   - » Only by having the opportunity to materialize the benefits of innovation will new concepts be made widely available.

   If the monetization of neutral index providers' products / indices were restricted, the overall **dynamics of innovation might decrease**.

3. Neutral index providers, by nature of their business models, **serve the entire market** and are therefore best suited to **offer indices unbiased** towards any specific user group.
   - » Neutral index providers offer their services to both sides of the market: the issuers of financial products ("sell-side") as well as to asset managers and asset owners ("buy-side").
   - » Any adjustment of the indices must be suitable for all market participants simultaneously (and not only to the benefit of product issuers).
   - » Partial restriction of activities would potentially lead to a segmented and biased group of providers, each serving a limited range of market participants only. As realization of economic benefit is limited to a smaller group only, homogeneity and uniformity of indices might be the unintended result. As this might not become completely transparent, **less sophisticated or less influential investors may suffer** from being pulled into potentially one-sided products.

4. Neutral index providers **have built up significant experience** of index calculation without causing any distortions.
   - » Index provision from the neutral index providers is driven by high performance requirements as one of the key competitive criteria.
   - » The wider usage of indices as underlyings has driven index providers to continuously develop highly sophisticated methods for quality checking both inbound and outbound data.
   - » If the market structures change significantly, the **know-how and experience** of neutral index provider **may shrink**.

5. As mentioned above, index providers have a wide range of **property rights in their indices.** There is an effective global market for the provision of indices with some of the larger and market leading providers being domiciled outside the European Union, but also offering indices to clients in Europe.

1.4. CONCLUSIONS

As outlined above indices are used differently in the financial markets. Guidelines and safeguards are necessary to protect the markets from illegal actions. However, they should be drafted in a way which is proportionate and which supports the functioning of the markets in general and serves economic prosperity. For these reasons, the Commission should consider the differences between objective and subjective indices and the specific role of independent index providers. We conclude that

» due to their specific set-up objective indices should not be subject to regulation;
» independent index providers are best suited to calculate and operate subjective indices; and
» neutral index providers offer a significant benefit to the market and regulation should rather be extended to other providers of indices related to market participants.

1.4.1. OBJECTIVE INDICES

Objective and subjective indices are built up in a very different fashion and with very different levels of scrutiny.

Objective indices by their definition comply with the highest standards in terms of data quality and methodology and are already partly/indirectly regulated, e.g. they are built on regulated price sources, namely regulated markets. In summary:

» They provide the possibility of being fully replicated.
» They use only distortion free market data.
» Their methodology is transparent and does not contain any discretionary elements.
» The integrity of the ongoing maintenance is ensured.
» They adhere to the highest quality standards, both conceptually and technically.

It is worth noting in addition that independently maintained objective indices have not generated frictions in the financial markets. On the contrary, the continuous improvements and innovations from the independent providers have enhanced the overall global market structure.

We conclude that there is **no justification for objective indices to be the target of regulatory intervention.**

1.4.2. SUBJECTIVE INDICES

For all the reasons that make these indices subjective – lack of transparency, inability to be replicated, inclusion of discretionary elements, lack of quality control – we believe that **regulatory focus and attention is required for subjective indices.** Additional guidelines and effective oversight would provide a valuable additional safeguard to the financial markets**.**

However, neutral index providers do not have conflicts of interest. Therefore, with the right set of guidelines and governance requirements, they are the best qualified to calculate, maintain and operate subjective indices. For all other market participants, further safeguards should be considered.

We regard **neutral index providers to be best suited to calculate and operate subjective indices,** as they by their very nature strive to avoid conflicts of interest**.**

1.4.3. NEUTRAL INDEX PROVIDERS

Although indices might in principle be provided by different entities, regulatory restrictions may especially limit the activities of neutral index providers.

We would argue in detail that neutral index providers
» do not have a potential conflict of interest and therefore guarantee unbiased indices;
» support effective competition in the products market; and
» drive innovation for the benefit of all market participants.

We argue that neutral index providers are best suited to provide indices for the market place to avoid conflicts of interest or related problems which appeared in the context of the LIBOR calculation.

2. SPECIFIC ANSWERS TO QUESTIONS

2.1. CHAPTER 1. INDICES AND BENCHMARKS

Box 1

Question	STOXX answer
(1) Which benchmarks does your organisation produce or contribute data to?	STOXX produces indices and related data products for equities, fixed income, commodities, alternative investments and mixed asset class strategies.
(2) Which benchmarks does your organisation use? What do you use each of these benchmarks for? Has your organisation adopted different benchmarks recently and if so why?	n/a
(3) Have you recently launched a new benchmark or discontinued existing ones?	STOXX launches indices for STOXX and its partners on a regular basis, driven by own research and / or by market demand. Since 2011, STOXX has launched 3'578 indices. On the other hand, STOXX very rarely discontinues indices. Almost all our discontinued indices date back to September 2004. That was a one-off event which was related to the fact that STOXX switched to the ICB classification system. All in all, STOXX has discontinued 404 indices since 2004.This process is usual for a business with continuous innovation.
(4) How many contracts are referenced to benchmarks in your sector? Which persons or entities use these contracts? And for which purposes?	There is a range of financial contracts launched on the back of STOXX indices. Such products may take the form of inter alia: » ETFs (Exchange traded funds) » Derivatives (futures and options) » Structured products These financial products are used by different types of end-users (institutional and retail investors alike). However, all of the above products directly refer to the underlying indices. The market position in these products must be partially estimated, however the following figures may help shed more light: » **ETFs** – as of end of June 2012, the total number of assets under management stood at ~ 26.1 billion EUR. » **Structured Products** – as of end of June 2012, there were 47,709 structured products issues on the back of STOXX indices in the market place. » **Futures and Options** – in Q1 2012, there were 153 million EURO STOXX 50 derivative contracts traded.
(5) To what extent are these benchmarks used to price financial instruments? Please provide a list of benchmarks which are used for pricing financial instru-	STOXX indices are used for a broad range of financial products. As described in answer (4), these products can be derivatives, ETFs and structured products. Some of the most prominent indices used for such financial products are the following:

Question	STOXX answer
ments and if possible estimates of the notional value of financial instruments referenced to them.	» EURO STOXX 50 » STOXX Europe 50 » STOXX Europe 600 [Market figures had already been mentioned in q. 4]
(6) How are benchmarks in your sector set? Are they based on real transactions, offered rates or quotes, tradable prices, panel submissions, samples? Please provide a description of the benchmark setting methodology.	STOXX creates replicable, transparent and rules-based indices. For the purpose of index calculations, STOXX employs real transactions data which are sourced from regulated exchanges (where price determination takes place). All STOXX index rulebooks are fully transparent and available on the STOXX webpage. The link below contains the rulebooks which describe the methodology behind each index that STOXX calculates (these rulebooks are frequently updated when new indices are launched): http://www.stoxx.com/indices/rulebooks.html The STOXX indices in its vast majority would classify as “objective indices“ as per our definitions above.
(7) What factors do you consider to be the most important in choosing a reliable benchmark? Could you provide examples of benchmarks which incorporate these factors?	STOXX provides the market participants with an extensive range of indices which are widely adopted as benchmarks. Based on client feedback, the following criteria have been consistently mentioned - as being of high importance - for selecting a benchmark: » Fully transparent index methodology; » Rules-based and independent selection of index components; » The ability to replicate index performance (low tracking error); » Appropriate representation of the relevant market segment or investment strategy the investor wants to invest in. These criteria go hand in hand with our definition of “objective indices” which provide the highest possible market standard. Examples of widely used benchmarks include EURO STOXX 50 and STOXX Europe 600, among others.

2.2. CHAPTER 2. CALCULATION OF BENCHMARKS: GOVERNANCE AND TRANSPARENCY.

Box 2

Question	STOXX answer
(8) What kinds of data are used for the construction of the main indices used in your sector? Which benchmarks use actual data and which use a mixture of actual and estimated data?	(see also STOXX answer to (6)) STOXX routinely produces objective indices that are based on reliable data (which are sourced from regulated markets [stock exchanges]). The reliance on regulated market places in financial transactions is particularly beneficial for the goals of the Commission. Similarly, the involvement of regulated market places such as stock exchanges as source of data of objective indices guarantees the same level of transparency and reliability.

Question	STOXX answer
(9) Do you consider that indices that do not use actual data have particular informational or other advantages over indices based on actual data?	As outlined in our introduction, we do strongly believe in the added value of "objective indices". Amongst other criteria, the relevant prices are one of the key issues for any index. Only indices based on traded prices or firm quotes will qualify as objective indices. Indices where actual trading data are available but prices from other sources are used should not be considered as objective indices and are in our view suboptimal. In rare cases one may think about certain specific advantages; however, to avoid potential conflicts of interest, those indices are then best provided by neutral index providers (as defined in our introduction).
(10) What do you consider are the advantages and disadvantages of using a mixture of actual transaction data and other data in a tiered approach?	(see also STOXX answer to (9))
(11) What do you consider are the costs and benefits of using actual transactions data for benchmarks in your sector? Please provide examples and estimates.	(see also STOXX answer to (9))

Box 3

Question	STOXX answer
(12) What specific transparency and governance arrangements are necessary to ensure the integrity of benchmarks?	STOXX believes transparency, a sound and ethical business practice are paramount in the context of providing high quality indices. Our index calculations are governed by elaborated and established rules, proven in the day to day business, which are publicly available. In addition, STOXX has an established Independent Advisory Board (IAB) and appropriate publication mechanisms in place that are crucial elements in the governance of STOXX products especially for the adjustments of the rule book.
(13) What are the advantages and disadvantages of imposing governance and transparency requirements through regulation or self-regulation?	As outlined in the introduction, STOXX believes that objective indices do not require additional regulation.
(14) What are the advantages and disadvantages of making contributing data or estimates to produce benchmarks a regulated activity? Please provide your arguments.	Objective indices are based on appropriate pricing sources and already provide this as an added value.

Box 4

Question	STOXX answer
(15) Who in your sector submits data for inclusion in benchmarks? What are the current eligibility requirements for benchmarks' contributors?	n/a
(16) How should panels be chosen? Should safeguards be provided for the selection of panel members, and if so which safeguards?	n/a
(17) How should surveys of data used in benchmarks be performed? What safeguards are necessary to ensure the representativeness and integrity of data gathered in this way?	n/a
(18) What are the advantages and disadvantages of large panels? Even in the case of large panels could one panel member influence the benchmark?	n/a
(19) What would be the main advantages and disadvantages of auditing of panels? Please provide examples.	n/a
(20) Where indices rely on voluntary contributions, do you consider that there are factors which may discourage the making of these contributions and if so why?	n/a
(21) What do you consider to be the advantages and disadvantages of mandatory reporting of data? Please provide examples.	n/a
(22) For entities contributing to benchmarks which are regulated by financial regulation, what would be the advantages and disadvantages of bringing their benchmark submissions under the scope of this framework?	n/a

Box 5

Question	STOXX answer
(23) Do you consider that responsibility for making adjustments if inadequate data is available should rest with the contributor of the data, the index provider or the user of the index?	In practice, there are currently two alternative adjustments for objective indices: » The contributor of the transparent trading prices makes an adjustment due to mispricing of certain assets. Typically these adjustments are governed by the rules and regulations of the respective trading venue and are broadly communicated. » The index provider is making adjustments pursuant to the applicable policy because of » incorrectly disseminated in-bound prices; or » calculation errors In both of these cases again a broad communication is made equally to all market participants.
(24) What is the formal process that you use to audit the submissions and calculations?	The actual index calculation is subject to a wider range of inbound and outbound filtering. Index calculations are monitored in several ways, inbound filter and validations rules, audit procedures and outbound filter: » Inbound filter e.g. for price updates work with threshold comparing current data with previous values. They aim to prevent incorrect data entering the calculation process. » Validations rules and their results are used. » Outbound filter rules e.g. for price updates work with threshold comparing current data with previous values. They aim to prevent incorrect data from the calculation process being distributed. Only with such high standard procedures could the highest quality of indices be ensured.
(25) If there are any weaknesses identified in the audit, who are they reported to and how are they addressed? Is there a follow up process in place?	Key performance figures are collected and analyzed by service managers. Technical weaknesses are addressed internally to technology departments. Manual processes are continuously reviewed to see whether automation is possible or that procedures are followed correctly, in particular double-check requirements. For all relevant changes a 4-eye principle is the minimum requirement.
(26) How often are submissions audited, internally or externally and by what means? Do you consider the current audit controls are sufficient? What additional validation procedures would you suggest?	Submissions to the index provider are reviewed on arrival continuously with the above mentioned continuous processes (see also answer to question 24).
(27) What are the advantages and disadvantages of a validation procedure? Please provide examples.	(see answer to question 24)
(28) Who should have the responsibility for auditing contributed data, the index provider or an independent auditor or supervisor?	n/a
(29) What are the advantages and	STOXX extensively responded to this question already in the introduction:

Question	STOXX answer
disadvantages of making benchmarks a regulated activity? Please provide your arguments.	History proves that the governance of independent index providers is sufficient to ensure objective and reliable index calculation for objective indices. An appropriate governance is one of the characteristics of objective indices and comprises the following elements: » Public transparency: The public use of the indices acts as a safeguard to detect potential miscalculations. » Professional support from market participants: In order to ensure the adequacy of the rules all independent index providers already maintain advisory boards for counsel. The board is composed of experts from leading regional and international banks and investment managers.

2.3. CHAPTER 3: THE PURPOSE AND USE OF BENCHMARKS

Box 6

Question	STOXX answer
(30) Is it possible and desirable to restrict the use of benchmarks? If so, how, and what are the associated costs and benefits? Please provide estimates.	Objective indices by definition fulfill all requirements for being used both as an underlying and as a benchmark – this is a significant benefit to the market. Therefore it is not desirable to restrict their use. Subjective indices could also qualify for being used as underlyings and benchmarks. However, as they do not per se fulfill all requirements, a detailed case by case evaluation might be appropriate. If being provided by neutral index providers, certain concerns and limitations might already be mitigated.
(31) Should specific benchmarks be used for particular activities? By whom? Please provide examples.	n/a
(32) Should benchmarks developed for wholesale purposes be used in retail contracts such as mortgages? How should non-financial benchmarks used in financial contracts be controlled?	According to STOXX' experience there is no clear transition between usage of indices in the wholesale and retail space. However, the objective indices fulfill all relevant requirements to be used for the respective products.
(33) Who should have the responsibility for ensuring that indices used as benchmarks are fit for purpose, the provider, the user (firms issuing contracts referenced to benchmarks), the trading venues or regulators?	Objective indices are by definition fit for the purposes of both "underlying" and "benchmark". Index providers are required to maintain their indices along relevant categories for objective and subjective indices. However, they will not be able to fully control all possible and hypothetical types of usage. It is therefore the obligation of the user to ensure proper application of the indices. Product issuers will only choose those indices as underlyings that ensure that the issued product is compliant with all regulatory requirements. For example, the vast majority of indices have construction mechanisms in-

Question	STOXX answer
	cluded that ensure diversification requirements embedded in fund regulations are met.

2.4. CHAPTER 4: PROVISION OF BENCHMARKS BY PRIVATE OR PUBLIC BODIES

Box 7

Question	STOXX answer
(34) Do you consider some or all indices to be public goods? Please state your reasons.	We do not consider indices used as benchmarks and underlyings provided by index providers in the financial markets to be public goods. The various advantages of neutral index providers offering indices had been outlined in detail in the introduction. STOXX believes in the advantages of provision of indices by neutral index providers operating a commercial business. From our perspective, the idea of indices being public goods contradicts the commitment of the G8 to Intellectual Property Rights [http://www.whitehouse.gov/the-press-office/2012/05/19/statement-g-8-leaders-global-economy]
(35) Which role do you think public institutions should play in governance and provision of benchmarks?	For certain subjective indices public institutions may step in to offer independent governance. However, as we have argued in the introduction, neutral index providers are best positioned to provide these indices: they have all the necessary skills, they provide the relevant safeguards for the provision of subjective indices and there is a fully functioning, competitive market amongst those neutral index providers.
(36) What do you consider to be the advantages and disadvantages of the provision of indices by public bodies?	Objective indices comply with highest standards. Thus a transfer to public bodies is not necessary. For subjective indices we have argued in the introduction in much detail that neutral index providers are best suited to calculate and operate those indices because » they are not exposed to conflicts of interest; and » they have all necessary competences, skills and infrastructure to calculate those indices. Especially for the “objective indices”, but as argued in great detail above as well for “subjective indices”, commercially well established structures and solutions provided by neutral index providers are available. Thus the involvement of public bodies, which first need to build up relevant skills and infrastructure, is not necessary.
(37) Which indices, if any, would be best provided by public bodies?	As argued above, STOXX does see no relevance for public bodies to provide indices.
(38) What conflicts of interest would arise in the provision of indices by	Also Public bodies may themselves face the possibility of a conflict of interest, as in certain emerging countries the published inflation rate is cur-

Question	STOXX answer
public bodies? What would be the best way of avoiding these conflicts of interest?	rently doubted to match the reality.

2.5. CHAPTER 5: IMPACT OF POTENTIAL REGULATION

Box 8

Question	STOXX answer
(39) What are the likely transition challenges, costs and timelines for relevant benchmarks? Please provide examples.	n/a
(40) How do you consider that the adoption of new benchmarks could be ensured? Is this best framed in terms of encouraging or mandating the use of particular benchmarks?	The index market with indices provided by neutral index providers is a fully functioning competitive market and the user has full discretion among various concepts. We therefore see no need for specific guidelines.
(41) How can reforms of the regulation of benchmarks be most easily implemented?	If the Commission views “inherent conflicts of interest” as the core problem also in the financial index market, it should amend existing provisions such as Article 12(4)(b) of the Eligible Assets Directive 2007/16/EC which generally requires index providers to be independent. However, many market participants rely on softer and second-best “Chinese walls” solutions which are also admitted by the Directive and the ESMA guidelines on ETFs and other UCITS issues. Thus, the most straightforward and easy to implement safeguard against conflicts of interest would be to provide for full independence of index providers from market participants (“neutral index providers” in our definition).
(42) What positive or negative impacts, if any, do you see on small and medium-sized enterprises of the possible regulation of indices, and how could any negative impacts be mitigated?	n/a
(43) Are there other impacts which should be considered? If so please specify the nature of these impacts and provide evidence.	n/a

Box 9

Question	STOXX answer
(44) In which countries are benchmarks used in your sector produced? From which countries are data used for the production of benchmarks in your sector? In which countries are benchmarks used in your sector?	Our indices are used as underlyings and benchmarks on all financial markets around the world.
(45) Are there non-EU benchmarks which could serve as substitutes? Are there non-EU benchmark providers which could produce similar benchmarks?	As most of our competitors are domiciled outside the EU and market data from regulated markets for index calculation is available worldwide, almost all of our indices could be substituted (more or less) by indices from other index providers.
(46) Are there international benchmarks which could serve as substitutes for national benchmarks?	STOXX and other international index providers provide benchmarks for multiple local markets and compete on the global markets. Several non-European providers may offer direct and immediate substitutes for indices currently calculated, offered and maintained by STOXX. This is in particular true for indices for the Eurozone.