

FESE Response to European Commission 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

1. Introduction

The Federation of European Securities Exchanges (FESE) represents 46 exchanges active in equities, bonds, derivatives and commodities through 21 full members from 30 countries, as well as 7 observer members from European emerging markets. FESE is a keen defender of cross-border competition and many of its members have become multi-jurisdictional exchanges, providing market access across multiple investor communities. FESE members operate Regulated Markets (RMs), which provide both institutional and retail investors with transparent and neutral price-formation.

FESE members are glad to have the opportunity to contribute to the European Commission's consultation. FESE supports efficient, fair, orderly and transparent financial markets that meet the needs of well protected and informed investors and provide a source for companies to raise capital and for investors to hedge their portfolios. As such, exchanges can be regarded as neutral providers of data, and in certain cases also indices, but without any conflict of interest between trading activity leading to beneficial ownership and the provision of data and/or the provision of indices and benchmarks (as in the case of LIBOR).

Below you will find our response to certain questions included in the consultation paper. Please also find included in this response introductory comments in the context of Regulation of Indices.

2. General Comments

The Consultation Document covers a wide range of benchmarks which are constructed in significantly different ways (i.e. certain benchmarks are based on polled rates and others are based on transactions or are calculated through a combination of data on transactions, bids and offers). Data for benchmarks as described by the European Commission is also being sourced from different markets (i.e. transparent, regulated markets in the case of certain benchmarks and less transparent and less regulated OTC markets in the case of others). The source and quality of data significantly affects the integrity of benchmarks and potentially makes certain benchmarks capable of manipulation. Data in the form of estimates/indications submitted by parties with a beneficial interest in the underlying product or index creates a clear conflict of interest (e.g. their submission of "subjective" data can influence the benchmark used by them as an underlying or reference price for financial exposure within their company). These types of submissions will be less reliable than data submitted by regulated trading venues using transparent data inputs, unless those conflicts of interest are managed effectively. Moreover, these indices are used as a basis for a large number of financial products that are traded across all asset classes, e.g. equities, fixed income, derivatives and commodity markets.

Consequently, FESE distinguishes benchmarks by dividing them into the following three categories:

- (a) **Category 1:** benchmarks based on polled rates which are sourced from non-regulated data sources, excluding information indicators (especially in cases where they are prone to a conflict of interest);
- (b) **Category 2:** benchmarks based, in whole or in part¹, on transaction data from OTC markets;

¹ Some of the benchmarks in Category 2 are calculated using a hybrid methodology which incorporates data on bids and offers as well as transactions.

(c) **Category 3:** benchmarks based on transaction data from regulated markets.

Besides the aforementioned three categories, there is another class of data products, which solely serves investors for information gathering. This class includes macroeconomic indicators, which do not fall under the definition of benchmarks as provided by the Wheatley Review or the European Commission.

Cases of misconduct or attempted manipulation of benchmarks in category 1 have been identified by regulators and are currently being investigated. It has become apparent that the conflict of interest between the data providers and the index users were at the heart of this misconduct. The reliability of certain benchmarks in category 2 is also currently under scrutiny for the same reason. In particular, given the examination by IOSCO of the role of Price Reporting Agencies (“PRAs”) within spot oil markets², further scrutiny is justified insofar that the OTC markets from which the relevant data is derived are not subject to orderly and proper markets requirements, nor are they transparent or multilateral in nature. For certain markets where no transparent transaction prices are available, it is however of added value to have indices based on less transparent pricing. However, this may be accompanied with certain additional safeguards to support quality. (e.g. handling by an independent, neutral provider)

In contrast, benchmarks in category 3 have not been the subject of serious regulatory concern, nor have the regulatory authorities identified any demonstrable misconduct in relation to their compilation. A key differentiating factor of benchmarks within Category 3 is that they are usually calculated on the basis of a regulated trading venue’s transparent data. In particular, regulated markets are required to comply with stringent regulation concerning market integrity, orderly and transparent price formation, and the operation of efficient markets. Moreover, their compliance with such regulations is subject to close and continuous oversight by the relevant regulatory authorities. In addition, the administration and the process of contributing to benchmarks within category 1 should be regulated activities. This would enable regulatory authorities to create bespoke regulations and associated sanctions in relation to these activities.

In light of these considerations, FESE believes that it is appropriate that all benchmarks should be brought within the scope of civil and criminal sanctions against manipulation, and their governance, transparency and calculation methodology arrangements should be subject to a set of high level principles which are being devised by IOSCO.

Should policy makers engage in future discussions on benchmarks and indices and the need to preserve market integrity, FESE believes that these discussions should be in line with the goals of the Commission’s current work on both MiFID/R and MAD/R, and should focus on ensuring independence, and transparency.

The approach to changing the regulatory perimeter proposed above would enable policy makers to retain their focus on addressing, as a matter of urgency, the issues which have occurred and the deficiencies which have been identified, in relation to benchmarks within Category 1. Moreover, they would not lose sight of the potential benefits of broader application of such policy action. The benefits of wider application, and any requisite calibrating of regulations to other types of benchmarks could then be given due consideration over the medium term.

² See “Principles for Oil Price Reporting Agencies: Final Report”, dated 5 October 2012 which explains on page 6 that “IOSCO has examined numerous PRA processes for the purposes of identifying common vulnerabilities that could, if not addressed by appropriate controls and policies, result in an assessed price that is an unreliable indicator of the physical oil market value that it is intended to reflect”.

1. Response to the Consultation Document

Chapter 1 – Indices and Benchmarks: What they are, who produces them and for which purposes

(1) Which benchmarks does your organisation produce or contribute data to?

European exchanges provide a number of benchmarks with the purpose of creating an accurate and real-time updated measure of the performance of a particular section of the capital market, all of which fall under category 3, as described above. Examples of these benchmarks are CAC 40, DAX, IBEX 35, and SMI³. These indices are made available to the public by exchanges through both financial news services and market data providers. The users of these indices are varied and diverse, and include those investors that want to monitor changes in overall market value over a certain period of time in order to hedge their investment portfolios and traders that wish to trade those tradable indices.

Regulated Market	Main Index	Regulated Market	Main Index
Athens SE	FTSE/ATHEX	Malta SE	MSE
BME	IBEX 35	Warsaw SE	WIG
Bratislava SE	SAX	Wiener Boerse	ATX
Budapest	BUX	NASDAQ OMX	OMXS30, OMXC20, OMXH25
Bulgarian SE	SOFIX	Oslo Bors	OBX
Cyprus SE	Main_IN_C	Prague SE	PX
Deutsche Boerse	DAX	NYSE Euronext	CAC40, AEX, PSI 20, BEL 20
Ireland SE	ISEQ	SIX Swiss Exchange	SMI
Luxembourg SE	LuxX		

(2) Which benchmarks does your organization use? What do you use each of these benchmarks for? Has your organization adopted different benchmarks recently and if so why?

Certain derivatives exchanges use benchmarks as the basis for some of their main financial products, i.e. futures and options contracts in the fixed income and equity markets. Examples of these benchmarks are EURIBOR, LIBOR (both category 1), Euro Overnight Index Average (“EONIA”) (category 2) ; as well as many of the main indices listed in the table above, which are benchmarks in category 3.

(3) Have you recently launched a new benchmark or discontinued existing ones?

(4) How many contracts are referenced to benchmarks in your sector? Which persons or entities use these contracts? And for which purposes?

The uses of exchange benchmarks (i.e. the use of benchmarks as underlyings) vary from those market participants that wish to track the movement of the market value of a given market segment through to market participants who wish to use the benchmark to track performance of financial products and underlying investments. One purpose of this monitoring is so that financial users can hedge their investment portfolios against adverse movements in the market.

³ The FESE Economics and Statistics Committee has prepared a detailed overview of more than 120 market indices most commonly used in Europe. You will find precise information on their technical details, data dissemination, related derivatives products and legal and administrative details. All indices available on FESE statistical tables are described in detail. The FESE index database can be accessed through the link: <http://www.fese.eu/en/?inc=art&id=2>

As stated in question 2, certain derivatives exchanges make contracts available for trading which are referenced to numerous benchmarks. An example of this would be financial products, such as exchange-listed contracts and OTC contracts based on EURIBOR (Interest Rate Swaps, Forward Rate Agreements and associated options) that have an estimated nominal value outstanding in excess of €100 trillion.

- (5) To what extent are these benchmarks used to price financial instruments? Please provide a list of benchmarks which are used for pricing financial instruments and if possible estimates of the notional value of financial instruments referenced to them.**

For a list of benchmarks provided by exchanges, please refer to the response to Question 1.

The BIS estimates that the notional value of outstanding OTC and listed financial products such as interest rate derivatives contracts (which is referenced to LIBOR, EURIBOR and other benchmarks) is in excess of \$560 trillion. BIS does not publish disaggregated data in respect of OTC equity index business, but it does in relation to listed equity index derivatives (the BIS Quarterly Review of June 2012 notes that the notional value outstanding in those contracts is \$3.9 trillion).

- (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.**

Exchange-provided indices are normally benchmarks in category 3. They are usually based on publicly available market prices on the exchange, but can also include, in certain circumstances, mark-to-market prices. Where relevant, UCITS rules require that only on-exchange order book prices are used when the underlying includes derivatives or ETFs.

Please find below a summary of the methodology used in relation to one benchmark within each of the categories:

- (a) **EURIBOR (Category 1):** EURIBOR is governed by Euribor-EBF, which was established under the auspices of the European Banking Federation (“EBF”). EURIBOR is a benchmark giving an indication of the average rate at which euro inter-bank term deposits are offered by one prime bank to another within the euro zone. It is produced for 15 maturities, ranging from one week to twelve months. Individual EURIBOR rates are the product of a calculation based upon submissions from a panel of banks. There are currently 43 banks within the panel, ranging from savings banks to cooperative banks, and from regional to international banks. Each day on which the Trans-European Automated Real-Time Gross-Settlement Express Transfer system (“TARGET”) is open, panel banks are required to indicate, for each maturity, the interest rate at which one (hypothetical) prime bank could borrow from another on an unsecured basis in the euro inter-bank market. The highest and lowest 15% of quotes in each maturity are eliminated and the remaining quotes are averaged and rounded to three decimal places to produce EURIBOR.⁴
- (b) **EONIA (Category 2):** EONIA operates under the auspices of Euribor-EBF and Euribor ACI. It is the reference interest rate for overnight borrowing in euro in the inter-bank market. It is calculated as a weighted average of all overnight unsecured transactions which are initiated in the eurozone by contributing banks. EONIA is calculated with the assistance of the European Central

⁴ Source: EBF

Bank (“ECB”) given that the transactions upon which EONIA is based are conducted through facilities provided by the ECB. The contributing banks are the same banks which comprise the EURIBOR panel.⁵

- (c) **EURO STOXX 50 (Category 3):** The pan-European equity blue-chip index EURO STOXX 50 only uses transaction prices from regulated markets in Europe and has a fully transparent methodology (published on www.stoxx.com). The index follows clear and transparent selection rules, by which a set of 50 European stocks is chosen, considering free-float market capitalization of the companies and industry sector membership. Prices for the real-time calculation are sourced from various exchanges across Europe and aggregated according to the published formula effectively weighting the prices according to the market capitalization of the 50 companies belonging to the index.

(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?

Important criteria for a benchmark are outlined below:

- Transparency of methodology: calculation, stock selection, exceptions handling, corporate action processing.
- Transparency of periodic underlying data: prices, weightings, free float, stock changes, corporate action details, chaining dates, etc.
- Rule based selection of index components.
- Reflective of the underlying asset class and activity in line with the indices purpose, e.g. that it can be used as a proxy to reflect the value or level of collective information included within the indices data set.
- Usable: the index is available and suitable to the potential consumers of the proxy (this may be subject to license or commercial terms), e.g. UCITS 4 funds need indices that have a maximum individual weighting of 20% and prices are from order book trades only.
- Tradability: Tradability means that the index comprises the most actively traded companies of a certain market/region/segment/strategy, thus enabling investors to buy/sell index-based financial instruments at a fair price.
- Independence: Parties involved as provider of underlying data or provider of index/benchmarks should be independent from any trading activity.

Benchmarks in categories 2 & 3 incorporate these factors.

⁵ Source: EBF

- (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?**

Please see answer to question 6

- (9) Do you consider that indices that do not use actual data have particular informational or other advantages over indices based on actual data?**

Benchmark design and construction is, to a certain extent, a function of the characteristics and operation of the underlying market.

For benchmarks in category 3, indices that are based on data from regulated trading venues, are available for scrutiny and verification due to the nature of the data used.

Regarding benchmarks in categories 1 and 2, for certain underlying markets a benchmark will be a more accurate reflection of that market if it is based on polled rates, e.g. because liquidity is diffuse rather than being concentrated, and transactions are sporadic rather than continuous. For example, EURIBOR is a complex of 15 rates with maturities ranging from one week to 12 months. At any one time a maturity within that complex will be more active or less active relative to the other maturities depending on a number of factors, including general economic and financial conditions, overall perceptions of creditworthiness and liquidity needs. It is unlikely that all maturities will experience periods of high activity simultaneously and, over time, it can be expected that the focus of activity will move between different points on the maturity curve. As a result, rates for some (i.e. currently inactive or less active) maturities will need to be calculated and judged by reference to their relationship with other (i.e. currently more active) maturities in order for the theoretical pricing of the entire complex to be constructed and maintained.

- (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?**

For benchmarks in category 3, the advantage of using transaction data is that it ensures full transparency and is open to scrutiny and verification.

For benchmarks in categories 1 and 2, it is not obvious how a “hybrid methodology” would work, i.e. meaning the calculation of a single rate using both polled data and transaction data. However, just as the Final Report of the Wheatley Review⁶ recommends, transaction prices should be useful in corroborating contributions to LIBOR in that contributing banks should be able to articulate basis relationships between the “Offered Rate” and transaction prices in different instruments. In addition to money market transactions, prices from related markets (such as futures markets and FRA markets) would be helpful in this regard.

⁶ <http://www.fsa.gov.uk/doing/events/wheatley-review-libor>

(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.

For benchmarks in category 3, the advantage of using transaction data is that it ensures full transparency and is open to scrutiny and verification. However, for other benchmarks, in practice the provider is generally not at liberty to decide whether to use transaction data or other data (e.g. polled data) as the basis for any given benchmark. The reasons for this are explained in the response to question 9.

(12) What specific transparency and governance arrangements are necessary to ensure the integrity of benchmarks?

Effective transparency and governance arrangements are essential in order to ensure the integrity of a benchmark.

With regards to benchmarks in category 3, exchanges do not have an beneficial economic position in products available in the market in which they run. The lack of such a conflict of interest furthermore ensures that exchange index providers can be considered neutral by definition for they do not have an economic incentive to attempt at manipulating and/or distorting the benchmark that they compile. This is in opposition to any arrangements where the firms that submit rates for its calculation of a benchmark also deal in and maintain positions in the products set against that benchmark.

In order to ensure market integrity, and in line with the goals of the Commission's current work on both MiFID/R and MAD/R, any future discussion by policy makers on benchmarks should focus on ensuring independence and transparency.

(13) What are the advantages and disadvantages of imposing governance and transparency requirements through regulation or self-regulation?

In order to ensure market integrity, and in line with the goals of the Commission's current work on both MiFID/R and MAD/R, any future discussion by policy makers on benchmarks should focus on ensuring independence, and transparency.

(14) What are the advantages and disadvantages of making contributing data or estimates to produce benchmarks a regulated activity? Please provide your arguments.

In order to ensure market integrity, and in line with the goals of the Commission's current work on both MiFID/R and MAD/R, any future discussion by policy makers on benchmarks should focus on ensuring independence, and transparency.

(15) Who in your sector submits data for inclusion in benchmarks? What are the current eligibility requirements for benchmarks' contributors?

Most of the benchmarks provided by exchanges are in category 3.

(16) How should panels be chosen? Should safeguards be provided for the selection of panel members, and if so which safeguards?

For benchmarks in category 3, UCITS compliance of an index already ensures that the respective index

fulfils all the relevant sector and weighting criteria regarding the panels. Therefore, we do not see any need for additional safeguards.

For benchmarks in categories 1 and 2, the selection process should be designed to ensure that the panel is representative of the sector of activity that the benchmark is intended to measure or value. For the avoidance of doubt, panels for the creation of information indicators do not fall into this category.

(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?

This depends fully on the market model for the underlying asset. Further analysis would be needed per market and type of underlying asset or type of input. However, it should be designed in order to be a reliable representation of the underlying market and it should be accompanied by an effective oversight process through which the benchmark administrator can validate the accuracy of contributions.

(18) What are the advantages and disadvantages of large panels? Even in the case of large panels could one panel member influence the benchmark?

This depends fully on the market model for the underlying asset. Further analysis would be needed per market and type of underlying asset or type of input.

Ideally, it should be more difficult for any one contributor to exert an undue influence over the value of a benchmark where it is part of a large panel rather than a small panel – with the proviso that panels should only include institutions which are active in the relevant underlying market, for the reasons explained in the answer to Question 16.

(19) What would be the main advantages and disadvantages to auditing of panels? Please provide examples.

Contributions made by benchmark panel members should be audited, rather than the panels themselves. But how and to which extent this is to be done must be further analysed per market and type of underlying asset or type of input.

(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?

(21) What do you consider to be the advantages and disadvantages of mandatory reporting of data? Please provide examples.

(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?

For benchmarks in category 3, advantages would probably be limited, as the financial institutions providing these benchmarks are already regulated and supervised (rather than the benchmarks being regulated). This is fundamental for the trust in the markets.

- (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?**

For benchmarks in category 3, any adjustment should be based exclusively on the respective rule books, which ensures that consistent and transparent standards are applied.

- (24) What is the formal process that you use to audit the submissions and calculations?**
- (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?**
- (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?**
- (27) What are the advantages and disadvantages of a validation procedure? Please provide examples.**
- (28) Who should have the responsibility for auditing contributed data, the index provider or an independent auditor or supervisor?**
- (29) What are the advantages and disadvantages of making benchmarks a regulated activity? Please provide your arguments.**

For benchmarks in category 3, indices evolve with the underlying market model. Competent Authorities may not be aware of the intricacies of changes of the underlying market model and as such may delay or hinder the development of the benchmark unnecessarily.

For benchmarks in categories 1 and 2, in order to ensure market integrity, and in line with the goals of the Commission's current work on both MiFID/R and MAD/R, any future discussion by policy makers on benchmarks should focus on ensuring independence, and transparency.

(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.

Every investor should have the right to choose the most appropriate index and/or index provider to enable them to accurately track the performance of markets and/or underlyings. Benchmarks serve an important economic purpose for individuals and corporations in the real economy. Therefore, regulatory authorities should not seek to impose outright restrictions on them, but should ensure that they are subject to appropriate regulatory requirements.

(31) Should specific benchmarks be used for particular activities? By whom? Please provide examples.

With the overarching provision that any benchmark must be fit for the purpose for which it is being used, FESE sees the use of benchmarks for particular forms of business as a market-driven exercise and would caution against governments or regulatory authorities generally issuing mandates in this area; however, an exception may be made in relation to business in sovereign debt. We believe that the role of the regulatory authorities in this context is to set appropriate standards and requirements for all interest rate benchmarks (including requirements that they be fit for the intended purpose) and to oversee any migration from the use of one benchmark to another, given that any such migrations would inevitably involve investor protection and market integrity issues, including the risk of legal challenge and operational risks as is acknowledged in The Wheatley Review.

With regards to benchmarks in category 3, their predominant uses are:

- tracking the performance of a market;
- pricing financial instruments;
- performing comparisons (market vs. market, market vs. sector);
- performing analysis.

(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?

Please see the answer to question 31

(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?

For benchmarks in category 3, restrictions can be made in terms of trademarks and in certain cases intellectual property.

Some benchmarks have quite specific uses, while others are more general. Certain indices do not include all products and all regions. However, they are very useful proxy in general but would not be appropriate to track a specific market.

There is a certain responsibility of the consumer to ensure that they understand the use of the benchmark, its relevance and risk and make their decisions accordingly. We understand that there are now more indices than equities in the EU region. As such it is not possible to ensure every index is used appropriately by every user. Perhaps there should be more awareness brought to the consumer of the necessity for ensuring the proxy is fit for purpose.

For benchmarks in categories 1 and 2, the principal responsibility in this area should rest with banks and investment firms. They should ensure that the benchmarks embedded within the products that they provide to their customers are both suitable to the type of investor concerned and fit for the intended purpose of the product in question. As a general matter, other entities which are further removed from the customer cannot do so as they are not aware of the customer's needs or circumstances.

In addition, in designing contracts for admission to trading on a trading venue, the operator of the venue in question should satisfy itself and its regulator that any benchmark underlying a contract will form a reliable and robust basis for the contract. This is already standard practice within regulated markets, particularly in relation to listed derivatives based on equity indices, and is the subject of existing IOSCO guidance.

(34) Do you consider some or all indices to be public goods? Please state your reasons.

In strict economic terms, a “public good” is a good which must be supplied communally because it cannot be withheld from one person without withholding it from all. A private enterprise would not undertake to supply such a good as it has no power to require the community as a whole to pay for the good and it has no ability to withhold the good from those within the community who refuse to pay (as a result, such goods need to be provided by the State given that it is able to fund their provision through taxation). Benchmarks clearly do not meet these tests as they are supplied by private organisations today, which have been able to make them commercially viable by licensing them to a broad range of users.

The creation and maintenance of a benchmark in category 3 can vary in price or even regulatory of maintenance. Moreover, the idea of indices being public goods contradicts the G8 commitment for Intellectual Property Rights, namely:

“Given the importance of intellectual property rights (IPR) for stimulating job and economic growth, we affirm the significance of high standards for IPR protection and enforcement, including through international legal instruments and mutual assistance agreements, as well as through government procurement processes, private-sector voluntary codes of best practices, and enhanced customs cooperation, while promoting the free flow of information.”⁷

Indeed this would be an invasion of intellectual property rights and thus have a detrimental effect on the further development of benchmarks. Incentives for index providers to design new products would be jeopardized.

(35) Which role do you think public institutions should play in governance and provision of benchmarks?

FESE sees the development and promotion of any alternatives to existing benchmarks as a market-driven exercise and would caution against governments or regulatory authorities generally mandating the use of specific benchmarks for particular forms of business.

(36) What do you consider to be the advantages and disadvantages of the provision of indices by public bodies?

It would not be appropriate for public bodies to administer benchmarks if the administration of certain benchmarks (i.e. those within Categories 1 and 2) is made a regulated activity. Instead, the role of the relevant public body is to oversee the administrator of a benchmark and to ensure that it is fulfilling its responsibilities in an appropriate manner.

⁷ <http://www.whitehouse.gov/the-press-office/2012/05/19/statement-g-8-leaders-global-economy>

(37) Which indices, if any, would be best provided by public bodies?

Possibly indices for which public bodies are an authority or have a clear public interest, e.g. Central Statistics Office.

(38) What conflicts of interest would arise in the provision of indices by public bodies? What would be the best way of avoiding these conflicts of interest?

For benchmarks in category 3, one such conflict of interest would be the investment in the creation and the on-going maintenance of indices to ensure that they are suitable for commercial purposes. There is a risk that public bodies may not see the value in the investment or may be restricted due to public funds available.

Moreover, there is a need for time to adapt to customer needs or market model changes. Public bodies are not always best placed to deal with market model changes so quickly. Public bodies do not possess the authority and experience in the industry and are not always best placed to understand the non-public consumption of indices.

In order to ensure market integrity, and in line with the goals of the Commission's current work on both MiFID/R and MAD/R, any future discussion by policy makers on benchmarks should focus on ensuring independence, and transparency.

(39) What are the likely transition challenges, costs and timelines for relevant benchmarks? Please provide examples.

For benchmarks in category 3, one of the challenges would be the enormous shifts in assets under management linked to certain indices in case these indices were to be discontinued. Furthermore, it would mean higher costs for product sponsors and their clients as they would have fewer indices to choose from. If only one entity was entitled to generate a specific index, competition would be severely harmed and monopolistic entities could be emerging.

Transition of use depends on customer needs, availability of incumbent indices, regulation of consumer's area of business and infrastructural / operational investments. Depending on the index and use collective costs are likely to be multiples of millions for any liquid market.

For benchmarks in categories 1 and 2, when considering an alternative rate to any given benchmark (e.g. EURIBOR rate), it is necessary for continuity purposes to ensure that the alternative rate encapsulates the same period and credit factors as the original.

Failure to address the continuity issue could change the value of the existing stock of outstanding positions, which we estimate to be worth in excess of €100 trillion. In addition, given that new transactions are entered into in order to manage existing exposures that market participants have to EURIBOR-based risk in other asset classes, those market participants would likely prefer to continue to hedge such risk in futures with the same or as close to identical financial characteristics as existing contracts.

There is a wide range of different interest rate benchmarks which is available to the market. We believe that the role of the regulatory authorities in this context is to set appropriate standards and requirements for all interest rate benchmarks (including requirements that they be fit for the intended purpose), leaving it to the market to decide which benchmarks to use in practice.

(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?

For benchmarks in category 3, it is essential that the adoption of new benchmarks remains at the discretion of the index providers. As index providers are in permanent and direct contact with all relevant market participants, they know best about the needs and requirements as to new benchmarks.

For benchmarks in categories 1 and 2, FESE sees the development and promotion of any alternative benchmarks as a market-driven exercise and would caution against governments or regulatory authorities generally mandating the use of specific benchmarks for particular forms of business (albeit that an exception can be made where the relevant government is the issuer of securities to which the benchmark will be applied).

(41) How can reforms of the regulation of benchmarks be most easily implemented?

The calculation of benchmarks in category 3 is already highly standardised. Over-regulation could severely harm the ability to react to changes in the market, e.g. with regard to volatility and other regulation impacting on indices and their constituents.

In collaboration with the index providers ensuring that industry experts are employed by the regulators.

For benchmarks in categories 1 and 2, please see answers to section 2.

(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?

The potential impact would depend on the specifics of the regulation.

(43) Are there other impacts which should be considered? If so please specify the nature of these impacts and provide evidence.

For benchmarks in category 3, these would include the availability of historic time series, competitive disadvantage for providers in non-regulated index providers, customer migration away from incumbent providers.

For benchmarks in categories 1 and 2, please see answers to section 2.

(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 sourced? In which countries are benchmarks used in your sector used?

Benchmarks in category 3 are provided by European exchanges are used by those participants that track the performance of the market in a given country (please see response to question 1).

Benchmarks in categories 1 and 2 such as LIBOR and EURIBOR serve international markets and are used by participants in multiple jurisdictions as a result of valuable efficiency gains and network effects. In light of these considerations, it would be appropriate for the international standards being developed by IOSCO to be applied to all benchmarks. If common standards are not agreed, uncertainty will be created in the market and there will be a risk of regulatory arbitrage, along with the creation of inefficiencies caused by a reduction in the existing beneficial network effects which are delivered by global benchmarks.

(45) Are there non-EU benchmarks which could serve as substitutes? Are there non-EU benchmark providers which could produce similar benchmarks?

Depending on data availability any index can potentially be substituted. Therefore, from a technical point of view similar benchmarks could be constructed without problems as there is competition on a global scale. However, what cannot be replaced easily is the brand awareness amongst market participants as well as existing exposure to the initially used benchmark.

For benchmarks in categories 1 and 2, please see answers to question 39.

(46) Are there international benchmarks which could serve as substitutes for national benchmarks?

Please see the answer to Question 45.