

INDEXCHANGE INVESTMENT AG COMMENTS ON

CESR'S CONSULTATION PAPER ON CLARIFICATION OF DEFINITIONS CONCERNING ELIGIBLE ASSETS FOR INVESTMENTS OF UCITS

INDEXCHANGE Investment AG (hereinafter INDEXCHANGE) welcomes the opportunity to comment on CESR's Consultation Paper concerning Eligible Assets of UCITS and supports CESR's efforts to clarify certain definitions of eligible assets.

INDEXCHANGE was the first German provider of Exchange Traded Funds (ETF) on the European market, and since it began this activity in the year 2000 it has established itself as one of the European market leaders. INDEXCHANGE currently manages about 25% of the total amount invested in European ETFs, and INDEXCHANGE ETFs make up almost 35% of total European ETF trading volume.

INDEXCHANGE exclusively manages passively managed index funds under German law. Consequently, we restrict our presentation to the section "Index Replicating Funds" and the questions and statements contained in that section.

We would like to take this opportunity to present our basic position on the replication of indices. We bring to this area our experience in launching passively managed funds, especially based on harmonised European law, and our expertise as to the nearly perfect tracking of an index with an extremely small deviation in the performance of the ETF from the performance of the underlying index.

When INDEXCHANGE bond index funds adapted to German investment law, one of the problems that arose was how a single-issuer index can be replicated in accordance with the Directive. At this time we would also like to present our position on the consultation procedure. With a view to the future and to the opening up of new investment options, we would also like to address to what extent ETFs are able to track financial indices.

Index replicating funds

We first need to clarify how derivatives and/or techniques and financial instruments can be used in tracking an index, as required under Article 21.2, before addressing the question of the appropriate method of assessment.

Depending on whether direct or indirect tracking of the underlying index is considered permissible, different formulas are used to measure index tracking.

Authorisations granted in Germany are as a rule based on the principle of priority for direct index tracking. This principle of priority says that the tracking of the index is primarily to be carried out through direct investments in the equities or bonds



contained in the underlying index. The indirect tracking of the index through derivatives or other financial instruments is permitted only in exceptional cases.

The position of Article 22a within the Directive after the regulations on investments in securities (Article 22), the express reference in the regulation to "investment in shares and/or bonds", as well as the designation of the index as a "equity or bond index", indicates that the intention of Article 22a is a direct tracking of the index. In contrast to the terminology in Article 19.1(g), the term "financial indices" is specifically not used in Article 22a. We draw the conclusion from the difference in the terms used in Article 19.1(g) and Article 22a that an investment fund that tracks an index through the use of derivatives and/or other techniques/financial instruments in accordance with Article 21.2 does not fall within the scope of Article 22a.

The direct tracking ensures that the risk/return profile of the investment fund corresponds to the risk/return profile of the underlying index. The use of derivatives and/or other techniques and instruments in accordance with Article 21.2 can, in contrast, result in an increased risk profile for the investment fund compared to the risk profile of the index. So a typical risk of entering into forward transactions, for example, is counterparty risk. In the direct tracking of the index, however, there is no counterparty risk.

We disagree with the opinion of the CESR that in all cases the use of derivatives and/or other instruments and techniques in accordance with Article 21.2 improves the quality of index tracking by minimising the tracking error. It is more a case of the use of derivatives potentially increasing the tracking error, for example when the performance of the fair basis of a future deviates from the performance of the underlying.

That view also completely disregards the fact that the amount of tracking error is not the only reflection of the quality of index tracking. Measuring the risk/return profile of the index is also a measure of the quality of the index tracking, and this specifically cannot be determined using the tracking error. Other measures, that we shall address in the answer to Question 13, are needed for this.

All that we say below is primarily based on the thesis that direct index tracking is the best approach. We only express an opinion on indirect index tracking for informational purposes.

Q 12: In our consideration, the CSSR recommendation should require a demonstration from investment funds of the quality of index tracking.

Precisely because the wording of Article 22a does not define how the tracking of the index is to be carried out, it is in the interest of and for the protection of the investors to require demonstration of the quality of index tracking.



First, this demonstration clarifies whether an investment fund is pursuing the investment principle of direct index tracking. Second, it makes clear whether the risk/return profile of the investment fund corresponds to the profile of the underlying index. Finally, this demonstration ensures that the investment fund does not deviate significantly from the performance of the index.

As neither the short prospectus nor the full prospectus is required to include information about issuers whose weightings are in accordance with the stricter investment restrictions listed in Article 22a, another way must be found, based on a quality review of index tracking, to show that investments and the associated risks correspond to the composition of the underlying index.

Q 13: We prefer measuring direct index tracking using the duplication percentage.

Tracking error is not appropriate for the measurement of direct index tracking, because it is not based on the composition and weighting of the investment fund. Instead, tracking error is calculated as the standard deviation of the excess return of the investment fund against the benchmark return.

The investment fund may also achieve the performance of the index through the use of derivatives and/or other techniques and instruments in accordance with Article 21.2. Consequently, tracking error does not give any information about the proportion of equities or bonds in the investment fund and whether these securities correspond to their weighting in the index. As we give priority to direct index tracking, tracking error is not appropriate for the qualitative measure of index tracking.

The duplication percentage, on the other hand, reflects the proportion of the equities and bonds in the investment fund that matches their weighting in the underlying index. The duplication percentage is defined as being equal to 100 less one half of the sum of the differences between the weighting of the equities and bonds in the index and the equities and bonds in the fund, added up for all the equities and bonds in the fund and in the index. The division by two is undertaken to come up with a credible result when calculating the duplication percentage. Below are two sample calculations that take extreme cases into consideration.

| | Index (Wi I) | Fund (Wi F) | Wi I – Wi F |
|---------|--------------|-------------|-------------|
| Stock A | 40% | 40% | 0% |
| Stock B | 10% | 10% | 0% |
| Stock C | 50% | 50% | 0% |
| | 100% | 100% | 0% |

Duplication percentage: 100%



| | Index (Wi I) | Fund (Wi F) | Wi I – Wi F |
|---------|--------------|-------------|-------------|
| Stock A | 40% | 0% | 40% |
| Stock B | 10% | 0% | 10% |
| Stock C | 50% | 0% | 50% |
| Stock D | 0% | 50% | 50% |
| Stock E | 0% | 50% | 50% |
| | 100% | 100% | 200% |

Duplication percentage: 100% - (200% divided by 2) = 0%

The duplication percentage figure has the following advantages:

- simple calculation
- can be easily checked, which means it is objectively understandable to investors
- high level of transparency for the investor
- independent of allocation assumptions (volatility, correlation)
- tracking of the index is not just reviewed as a whole but rather with reference to each security included in the index.

Duplication percentage by itself is still not a meaningful measure of the quality of direct index tracking. The second measure we need to determine is the investment level and the liquidity level of a fund, which together provide the total value of an investment fund.

The investment level provides information on the proportion of the investment fund's value that is invested in securities in the underlying index. This means the investment level does not refer to issuer limits, but rather describes the relationship between the amount of liquidity in the investment fund (in the form of bank accounts and money-market instruments) and the amount of investments in securities.

The duplication percentage is based not on the total value of the investment fund, but exclusively on the securities holdings. For example, if an investment fund has an investment level of 98%, the duplication percentage is based on this amount, and in its turn, should optimally amount to 100% in reference to these securities holdings.

This means the investment level reveals how much of the overall capital inflows of an investment fund are used to track the index.

If the CESR is of the opinion that derivatives and/or other techniques and instruments in accordance with Article 21.2 may also be used to track the index, then for the protection of the investors and for purposes of providing sufficient



transparency, this indirect tracking of a stock or bond index in the framework of Article 22a should be restricted to certain derivatives and/or other instruments under Article 21.2.

In our view, the following assets could be used for the indirect tracking of an equity or bond index in accordance with Article 22a:

- securities issued on the basis of the underlying index (index certificates)
- securities issued on individual securities in the underlying index (index securities certificates)
- futures contracts issued on the basis of the underlying index (index futures contracts)
- futures contracts issued on individual securities in the underlying index (index securities futures contracts)
- investment units which directly track the underlying index (index investment units).

In this case, the duplication percentage reflects the proportion of the above-named certificates, futures contracts and investment units in the investment fund, which matches their weighting in the underlying index.

In our view, derivatives and/or techniques and instruments under Article 21.2 that are not indirectly based on the underlying index or on the securities included in the index, but instead are used to replicate the performance of the underlying index, cannot be used in the tracking of an index. The reason for this is that investment funds that use derivatives and/or techniques and instruments as defined in Article 21.2 to improve performance are not tracking the composition of the underlying index. Instead, they are pursuing a policy of index sampling oriented towards a benchmark.

Q 14: In our opinion, there should be maximum thresholds for determining the investment level and in calculating the duplication percentage.

- The investment level should normally be 95% of the value of the investment fund. In exceptional cases, for example with high-yield indices, the investment level may be decreased to 90%.
- The duplication percentage should be at least 95%.

Rather than restricting ourselves to responding to the questions asked, as part of our comments on CESR's Consultation Paper we would like to express additional considerations regarding the scope of Article 22a:



Deutsche Börse AG launched bond indices on bonds of the Federal Republic of Germany, the so-called eb.rexx® Government Germany index family. This index group consists of an overall index, a selected index and several maturity class indices. All of these indices exclusively contain bonds issued by the Federal Republic of Germany.

Index investment funds that track such an index (or, conceivably, indices based on bonds of another member state of the EU) are confronted with the problem that they cannot fulfil the issuer limits set forth in Article 22a.

Article 23 provides for the launch of single-issuer funds under certain conditions, for example, if the issues are from a member state. Any such investment fund must invest in at least six issues of the issuer with a maximum weighting per issue of 30% of the value of the investment fund.

The question is under which regulation a single-issuer index investment fund can be launched. The report of 1 February 2000 by the Committee on Economic and Monetary Affairs lifted the restriction of the scope of Article 22a to equity indices and expanded the scope to include both equity and other bond indices. However, this expansion did not expressly take into consideration that single-issuer indices also include bond indices. They are representative of the risk-diversification options very typical of this type of security and should also be allowed to be tracked under the scope of bond indices.

Number 14 of the preamble to Directive 2001/108/EC reveals that Article 22a was created to facilitate the tracking of well-known and recognised equity and bond indices. In light of this intention of the Directive, it is our opinion that, at least to a certain extent, this need for a special regulation was overlooked when the possible scope was expanded. This means the lack of provision for the tracking of a single-issuer index under Article 22a is an unintentional omission.

Article 22a is intended to facilitate the tracking of equity and bond indices. For this purpose, Article 22a provides for more flexible risk-diversification regulations, which means an easing of the fixed issuer limits under Article 22. Because of this, Article 22a ought also to permit funds that track a single-issuer index. It is our opinion that there is no need whatsoever to set formal issuer limits here.

In our view, the determination as to whether the composition of a fund as defined in Article 22a is "sufficiently diversified" does not depend on adhering to special, formal issuer or issue limits.

An index is sufficiently diversified if

 the index represents an adequate benchmark for the market to which it refers,



- the index is published in an appropriate manner, meaning that it is accessible to the public
- and the index provider is independent of the investment fund that tracks the index.

The appropriateness of the index method ensures that the index tracks a market with its typical risk diversification. The assumption here is that any recognised market by definition demonstrates sufficient risk diversification because of the large number of market participants that represent that market in contrast to other markets. If this were not the case, it would not be a market, but rather a monopoly or an oligopoly. The public nature of the index and the independence of the publisher of the index are two other essential factors that act against distortion or restriction of the risk diversification of a market.

According to this thesis, a single-issuer index investment fund can fall under the scope of this regulation, even without applying the issuer limits under Article 22a.

To help understand this, we suggest that the issue limits under Article 23 be "read into" a "more flexible" version in Article 22a. With a view to the purpose of Article 22a, which is to permit more flexible risk-diversification regulations in the tracking of indices, we consider it appropriate to forego the minimum number of six bonds in the tracking of a single-issuer index.

Sufficient diversification is provided for in a single-issuer index when there is a maximum weighting of 30% of the index value in one issue. Consequently, a single-issuer index has to include at least four bonds from one issuer to fulfil the required diversification.

In our opinion, each of our suggested interpretations of the Directive create adequate room for manoeuvre in the tracking of the entire spectrum of the existing recognised securities indices. Flexibility in the interpretation of the regulations will not result in a weakening of investor protection or level of transparency. As explained above, adequate risk diversification, and thus the protection of the investors, are ensured when the above conditions are met, even for single-issuer funds. The quality of the tracking of the index is also transparently ensured by giving priority to direct investment and by applying the duplication percentage in connection with the investment level.

To close our presentation on the subject of index funds, we would like to address the subject of index derivatives, and explain, against the background that in accordance with Article 19.1(g) the acquisition of index-based derivatives is permissible, what this investment option means in terms of the replication of a financial index by an investment fund.



In our preliminary remarks to questions Q 12 to Q 14, we indicated that the use of different terms in Article 19.1(g) and Article 22a, specifically the designation of an index as a financial index, equity index or bond index, is of legal relevance and indicates that the indices have fundamental differences as regards the underlyings.

Article 22a is a final regulation in relation to the replication of securities indices. Because it directly replicates the index, the investment fund consists of securities included in the index in accordance with their weighting in the index.

On the other hand, a financial index is specifically not defined by the restrictions in Article 22a. Instead, it may contain other assets as underlyings, such as commodities or precious metals, which are not permitted under Article 22a.

On the basis of Article 21.2, an investment fund may be invested up to 100% in derivatives based on a financial index. The result of an investment strategy like this is that the performance of the investment fund (as close as possible taking into consideration charges and commissions) corresponds to the performance of the underlying financial index.

An investment fund of this type could be designated a "financial index investment fund". In contrast to a securities index investment fund, this type of investment fund specifically does not follow the strategy of direct replication of an index. The distinguishing characteristic of the financial index investment fund is that the underlyings of the index are specifically not intended to be acquired in physical form for the investment fund (no physical delivery), but rather are indirectly tracked in the investment fund. Consequently, only derivative instruments that are fulfilled in the form of cash settlements come into consideration.

By contrast, a financial index investment fund may not acquire derivatives intended to be settled physically. Otherwise, derivative instruments that indirectly track the financial index could be used to acquire assets that are not permitted, such as commodities and precious metals, for the investment fund.

This would go against the principle of indirect replication of the financial index. In addition, it would violate the formal restriction of the Directive to certain permissible assets. The restriction to derivatives with cash settlement is necessary, then, if a financial index investment fund is to be authorised as a UCITS.

In our view, the following assets could be used for the replication of a financial index in accordance with Article 21.2:

- derivatives issued on the basis of the underlying financial index (financial index derivatives)
- derivatives issued on individual underlyings of the underlying financial index (underlying derivatives)



As emphasised above, in the case of underlying derivatives, there must be no possibility of physical delivery of the underlyings. This prevents assets that are not permitted from being acquired for the investment fund.

Financial index derivatives are based on an abstract underlying, because a financial index is itself not an asset, but rather an abstract representation of underlying securities. The financial index is therefore to be treated as a potential asset that, with regard to its performance and risks (risk/return profile) corresponds to the composition and weighting of the underlyings of the underlying index. To the extent that the derivatives contained in the investment fund are based on the abstraction that is the financial index, the duplication percentage is 100% fulfilled under the conditions mentioned directly above.

The quality of this replication of the financial index through underlying derivatives can also be measured using the duplication percentage. The duplication percentage reflects the proportion of the above-named underlying derivatives in the investment fund, which matches the weighting of the underlying index. Derivatives are included in the calculation of the duplication percentage with their weighted market risk.

The investment level is determined in connection with the duplication percentage. In this case, the investment level is not based on the underlyings of the underlying financial index, but rather on the instruments used to replicate the index.

The authorisation of financial index investment funds will not result in reduced investor protection or level of transparency because the financial indices in question are certain indices that are recognised by the responsible authorities. Please see the requirements of Article 22a as regards this criterion. They can be used on financial indices as well as equity and bond indices.

An index can be recognised as a financial index if

- the index has sufficient risk diversification,
- the index represents an adequate benchmark for the market to which it refers,
- the index is published in an appropriate manner, meaning that it is accessible to the public.

In our consideration, the suggested interpretation of Article 21.2 will substantially expand the investment options of an investment fund and contribute to the consistent application of the Directive in the EU member states.