

Wholesale Data Market Study

Annex 2: Benchmarks

29 February 2024

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1 Introduction

- 1.1 This annex supplements Chapter 5 of the [Wholesale Data Market Study Report](#), which sets out our understanding of how competition in the supply of benchmarks operates, the outcomes we observe and their drivers, and the next steps we propose.
- 1.2 This annex provides a more detailed discussion of benchmarks, expanding upon concepts discussed in the Final Report. It provides a fuller description of our evidence sources, analytical approach, and assessment of how competition works in the market for benchmarks, based on the consolidated evidence we have collected and analysed.

Rationale and approach to evidence gathering

- 1.3 Our [Terms of Reference](#) set out our intention to gather information to assess whether the markets in scope of the market study are working well. This included a broad range of relevant stakeholders, including suppliers of benchmarks, indices and Credit Rating Agency (CRA) data, Market Data Vendors (MDVs) and users of these services and data.
- 1.4 We requested information from a range of benchmark administrators based on criteria encompassing core service offerings, scale, and market relevance. We engaged with these firms to obtain:
 - Qualitative information on a wide range of areas. We received responses from 31 benchmark administrators whose core business is within the scope of this market study.
 - Financial data related to the provision of in-scope wholesale data products and services sold to UK-based customers for the period 2017-2022. We received financial data from 14 benchmark administrators.
 - Transaction data on customer contracts. We received transaction data from 8 benchmark administrators.
- 1.5 To gather information from customers of benchmarks administrators, we issued a survey to a range of potential benchmark users to gather information on their experiences purchasing and using the products and services within scope of the market study. We received responses from around 120 benchmark users, including asset managers, wealth managers, banks, pension providers, insurers, platform providers and trading entities.
- 1.6 We have also considered the representations we received in response to our market study notice and responses to our update report, as well as the engagement we have had with a range of wider market participants and stakeholders.
- 1.7 This annex presents the consolidated evidence we have considered in reaching our conclusions.

Methodology

- 1.8 We identified a range of benchmark administrators, including firms listed in the UK [Benchmarks Register](#) and other market participants.
- 1.9 Benchmark administrators which are not located in the UK can access the UK market through certain third country provisions of the [UK Benchmarks Regulation](#) (UK BMR, or in this document referred to as BMR) without being subject to FCA supervision. The UK BMR also contains a transitional provision allowing non-UK administrators to provide benchmarks to be used in the UK without needing to meet these third country provisions, which was extended by the Treasury in January 2024 until the end of 2030.
- 1.10 To form an accurate view of competition, we also considered the business activities relating to the sale of indices outside of the scope of the UK BMR.

Qualitative information

- 1.11 We have requested qualitative information from a wide range of benchmark administrators. This information includes their product offering, business strategy, relationships with customers and redistributors, terms and conditions, as well as views on the competitive landscape and regulatory environment.
- 1.12 We have received responses from 31 benchmark administrators. These include established firms providing a large variety of products, as well as smaller firms specialising in niche asset classes.
- 1.13 Some of the firms are a parent group covering several benchmark administrators as subsidiaries, and their responses to our questionnaire have sometimes been on an aggregate level, while at other times for separate entities. As such, we consider them separately for some specific pieces of analysis.

Financial analysis

- 1.14 The financial analysis is based on a sample of 14 firms. We adopted a proportionate approach by building a sample that was representative of the overall market in scope. In building our sample, we included a combination of large and small providers, based on UK regulated benchmarks revenues, and a variety of business models, such as diversified versus 'niche' / specialised offering.
- 1.15 Assessing profitability to understand the competitive dynamics within a market poses a few inevitable challenges, mainly due to the quality and availability of data and certain necessary assumptions.
- 1.16 We have thoroughly outlined such considerations and caveats in the Methodology section of the [Financial Analysis Annex](#). Please refer to this for more details.

Transaction data

- 1.17 Transaction data was requested from benchmark administrators over a 5-year time horizon – from 2017 to 2022. We received transaction data from 8 benchmark administrators. The data includes, where available, information on revenue

generated at the client, contract, and product level. The transaction level data was analysed to inform our understanding of drivers of revenue and product pricing trends, and the extent and nature of supplier practices and behaviour such as price discrimination. We refer to findings from the analysis of the transaction level data throughout as "transaction level analysis".

- 1.18 While the data we received included information on revenue broken down at the client, contract and product level, it was not consistently available across all providers. As such, our analysis often focuses on metrics that allow consistent comparisons across providers and time. In particular, our analysis focuses on customers' total expenditure with a supplier rather than product pricing. This expenditure reflects both changes in the total products purchased by clients, and changes to the price of those services.
- 1.19 Where relevant, we focus analysis on a cohort of customers who stay with their data feed provider over a given period and customers whose payment structures allow for year-on-year comparisons.

User survey

- 1.20 To gather information from customers of benchmark administrators, we issued a survey to a range of potential users to understand what products and services users buy, how they access them, how they use them within their business, and the criteria they consider when choosing a particular product and provider. We also sought views on users' procurement processes and ability to compare, negotiate and switch to alternative products or providers. Finally, we sought users' views and experiences of pricing, terms and conditions, quality and the impact of changes in these on their own product offering.
- 1.21 We identified potential sectors that could be users of benchmarks and indices, credit rating data and MDVs from across the financial services industry, including asset and wealth managers, alternative investment fund managers (AIFM), investment banks, insurers, pension providers, brokers and trading entities.
- 1.22 To provide a range of feedback from all potential users, we identified around 400 firms from across these sectors and invited them to participate in an online user survey to provide feedback on their experiences and opinions, if they were users of the products and services within scope of the market study.
- 1.23 We were also aware that providers of the products and services within scope of the market study could also be users, for example, benchmark providers being users of credit rating data. As such, we also offered those firms who were engaging with us as suppliers of the products and services within scope of the market study, the opportunity to participate in the user survey.
- 1.24 The survey was separated into five sections. Section 1 requested information from users about their business, industry and the costs of purchasing the products and services within scope of the market study. Sections 2 to 5 asked a series of questions to generate feedback from users of benchmarks, credit rating users such as debt issuers, credit rating data users and MDV users respectively.

- 1.25 Survey respondents were encouraged to only provide feedback to the sections that were relevant to them, as users of those products and services. In total we received around 140 survey responses covering a range of industries and users, including around 85 related to their experience of licensing benchmarks. A number of survey respondents provided feedback from the perspective of multiple user types, for example, where benchmarks are used by multiple subsidiaries or departments within a wider corporate group.
- 1.26 To provide users with the most flexibility to provide us with information to inform our understanding, most of our survey questions requested broad qualitative feedback, rather than quantitative or categorical answers. To analyse the information we received and present our findings in an effective way, in many cases users' qualitative feedback has been converted into quantitative results. Given an element of judgement is necessary when interpreting and converting users' qualitative feedback into quantitative metrics, we generally present and discuss results and percentages in broad rounded terms.
- 1.27 Further, not all respondents responded to all survey questions. The total number of responses to specific questions, and therefore relevant percentages, can be different if some users did not respond to that question.

Public data on UK funds

- 1.28 Finally, we conducted analysis on market share and fees by accessing publicly available data on UK funds over a 24-year horizon from 2000 to 2024. We accessed this data from two MDVs, Morningstar and Bloomberg. The scope of this analysis is open-ended funds domiciled in the UK, and Exchange-Traded Funds (ETFs) available in the UK, with an inception date between 2000 and 2024. Our analysis is based on a dataset which contains 9,303 funds from 76 benchmark providers.

Structure of this document

- 1.29 This Annex is structured as follows.
- Chapter 2 provides an overview of the market for the provision of benchmarks and indices.
 - Chapter 3 describes how competition between benchmark providers works and our assessment of whether the features of the market may result in suppliers having market power.
 - Chapter 4 sets out the outcomes we observe in the market as a result of competitive dynamics and assesses evidence of market power of suppliers.
 - Chapter 5 focuses on commercial practices of suppliers and their impact on users and end investors.
 - Chapter 6 describes our analysis of public data on UK funds.

2 Market overview

Overview of benchmarks and indices

Definition of indices and benchmarks

2.1 The UK BMR defines an index as any figure:

(a) that is published or made available to the public;

(b) that is regularly determined:

(i) entirely or partially by the application of a formula or any other method of calculation, or by making an assessment; and

(ii) on the basis of the value of one or more underlying assets or prices, including estimated prices, actual or estimated interest rates, quotes and committed quotes, or other values or surveys.

2.2 A benchmark is an index that is used for certain purposes. An index becomes a benchmark within the scope of the UK BMR where:

- it is used to determine the amount payable under a financial instrument or financial contract, or the value of a financial instrument
- it is used to measure the performance of an investment fund for the purpose of:
 - tracking the return
 - defining the asset allocation or a portfolio, or
 - computing the performance fees.

2.3 Throughout this document, we use both the terms 'index' and 'benchmark' when we refer to the data, while if we refer to a licensed product, we use index to refer to non-BMR use and benchmark for uses in scope of the BMR.

Types of indices

2.4 One way to categorise indices is by asset class of the underlying assets. The main types of indices that are regularly used as benchmarks in wholesale financial markets are the following:

- **Equity:** indices tracking the value of equity securities (shares), selected according to specified criteria and with weights specified by the index methodology. These indices track the value of many different markets, for example, they can focus on specific geographies, sectors and market capitalisation ranges, and match specific investment strategies, eg, shares of companies meeting certain Environmental, Social and Governance (ESG) criteria. The main input into producing equity indices is publicly available trade data licensed from exchanges. Securities in the index are often weighted in proportion to their market capitalisation which facilitates investors physically replicating the

index. Examples of equity indices include the FTSE All-Share Index, the S&P 500 and the MSCI World Index.

- **Fixed income:** indices tracking the value of corporate or sovereign debt instruments (bonds). Like equity indices, fixed income indices also cover a wide variety of economic realities to match investors' portfolios, including type of issuer, geography, thematic components and credit rating. Examples of fixed income indices are the Bloomberg Global Aggregate, the FTSE World Government Bond Index and the J.P. Morgan CEMBI index.
- **Commodity:** indices whose purpose is to reflect the prevailing price of a specific commodity, referred to as commodity price assessments. Suppliers (price reporting agencies) collect data on physical commodity trades in the spot markets, bids, offers and other relevant market data, often directly from market participants. This data is processed and used to construct the price assessment based on a methodology. Commodity price assessments are used by a range of businesses, including financial services firms, to i) settle bilateral contracts for physical commodities or derivatives, or ii) clear and settle exchange-traded commodity derivative contracts. Commodity price assessments can also be purchased for use other than to be referenced in contracts. For instance, for internal use as reference prices to provide information on the market or to sense check another price assessment. An example is the S&P Global Commodities Insights Brent Crude Oil price assessment.
- **Interest rate:** where the index is determined based on the rate at which banks may lend to or borrow from other banks or agents in the money markets. These indices are often based on proprietary information supplied by the contributors, eg, banks, and calculated and administered by a benchmark administrator. Examples are the formerly widely used London Inter-Bank Offered Rate (LIBOR) and the Sterling Overnight Index Average (SONIA). As per our Terms of Reference, LIBOR is excluded from our scope because it has undergone a wind-down process. SONIA is outside of the scope of the UK BMR as it is administered by the Bank of England.
- **Foreign Exchange (FX):** provide a view of prevailing currency exchange rates for any currency. They are often based on trades, bids and offer quotes from electronic trading systems. An example of an FX benchmark is provided by Refinitiv Benchmark Services Limited (RBSL), part of the London Stock Exchange Group (LSEG), under the WM/Refinitiv (WMR) index family.
- **Derivative:** indices tracking the value of derivatives where the underlying is any of the above asset classes. For instance, indices tracking values of equity index options, credit default swaps, commodity derivatives, interest rate swaps or FX forward contracts. Often, the settlement price of the derivative contract is determined by reference to a benchmark. Whilst they might exhibit some similarities to the underlying asset class, derivative indices operate distinctly. These indices often use exchange trade data as the input data.
- **Blended indices:** indices where the index value relies on multiple asset classes of input data, for example, a mix of equity and fixed income assets in its constituents.
- **Alternative investments:** indices that track the value of alternative asset classes, for instance cryptoassets.

- **Indices of indices:** indices where the input data is entirely based on other indices. These indices may simply track the value of a basket of assets represented by the underlying indices and may apply a more complex methodology to the weightings of constituents over time to represent a trading strategy or provide otherwise useful information to users. Even where the indices used as input data are of one asset class, the function of the index of indices can be entirely different to the asset class. For instance, an FX risk premia index may be designed to represent the performance of a particular trading strategy in currencies but pricing information relating to the currencies is provided by the underlying FX index rather than the index of indices.

2.5 Beyond the categorisation above, certain types of indices have grown in popularity in recent years, following trends in financial markets.

- **ESG indices:** Indices can incorporate ESG factors into their methodology where they pursue an ESG objective, for example, filtering constituents and their weightings based on ESG data. The increased relevance of sustainability and climate change has significantly affected financial markets in the last decade, leading to the emergence of new markets and a shift in investors' preferences. For the index industry, this has led to increased demand for ESG equity and fixed income indices, but also of indices tracking new commodity markets, such as renewable energy or climate factors. [Sustainable ETFs](#) have also grown in the last few years, going from less than 2% of global Assets under Management (AuM) in ETFs at the start of 2020, to over 4% at the end of 2022. This is driven mainly by the European market, including the UK, which covers 70% of the sustainable ETFs market.
- **Indices constructed with alternative methodologies:** Many well-known equity or fixed income indices weight their underlying constituents by market capitalisation and represent a broad grouping of securities across a specified geography. However, some indices may use alternative composition and weighting methodologies. Examples include:
 - **Sector indices:** composed of constituents from a particular industrial sector.
 - **Thematic indices:** a custom composition aiming to benefit from an identified theme or trend in the wider economy. Constituents are selected based on the expectation of positive performance as a result of the relevant theme.
 - **Factor indices:** the methodology is designed to select and adjust weightings of constituents towards securities that are expected to generate risk-adjusted returns above the market average. The methodology is constructed on the basis of factor investing theory which holds that there are certain observable idiosyncrasies in market prices which can be predicted.
- **Custom/bespoke indices:** Indices can be based on a specific investment exposure as requested by a client for creation by an index provider, typically for use in an index-linked investment product created by an asset manager or a structured product developed by a bank. Many index providers have started working closely with clients to develop bespoke indices, or to provide versions of their existing products with customised features, including capping methodology, constituents and weights. 60% of users who responded to our survey use custom benchmarks. Users said they either blend benchmarks themselves (subject to a required licence) or approach MDVs or administrators directly to obtain them.

2.6 In the overview above we have concentrated on the types of indices that are typically used as benchmarks under the UK BMR. There are many other types of indices, some of which are relevant to financial markets, but they are not the focus of our study. Examples include figures produced by public authorities or central banks, such as central bank rates, inflation or employment figures.

Benchmark administrators and business models

- 2.7 Indices and benchmarks are supplied by index providers or benchmark administrators. These firms generally develop, calculate, and maintain a range of indices and earn revenue from licensing their use to clients, as benchmarks or for other purposes such as internal use or redistribution.
- 2.8 Benchmark administrators typically supply indices and benchmarks internationally, regardless of where they are domiciled. The largest providers form part of large, consolidated groups, and rely on their global group infrastructures to research, create, license, and distribute their indices and benchmarks.
- 2.9 We estimate aggregate revenues from indices data and the licensing of benchmarks to UK-domiciled customers to be around £600m in 2022 (see the Financial Analysis Annex).
- 2.10 The UK Benchmarks Register lists UK benchmark administrators and administrators from outside of the UK who have received FCA approval under the third country provisions of the UK BMR (third country administrators). As of February 2024, the register lists 35 UK benchmarks administrators and 9 third country administrators. The register does not list administrators based outside of the UK relying on the transitional provision to supply benchmarks to the UK, but we are aware of some suppliers that are operating in the UK under this provision.
- 2.11 Based on our review of publicly available information and information we gathered from suppliers and users of benchmarks, several types of firms administer benchmarks.
- **Diversified index providers:** administer a large number of benchmarks spanning multiple asset classes and investment strategies (generally equities, fixed income and derivatives), and may produce custom / bespoke indices. These include, for example, FTSE Russell, MSCI, S&P Dow Jones, Bloomberg, RBSL and Solactive.
 - **Price reporting agencies (PRAs):** specialise in commodity price assessments. These include, for example, S&P Global Commodity Insights, Argus, Independent Commodity Intelligence Services (ICIS), General Index and Global Commodities.
 - **Boutique index providers:** administer a small number of benchmarks, often measuring niche asset classes or markets, such as crypto, ESG, artificial intelligence (eg, CF Benchmarks, StatPro, Robo Global and Speedwell).
 - **Self-indexers:** firms who create benchmarks predominantly to use in financial products within their group, typically investment banks or asset managers (eg, Nomura, Blackrock, Invesco and Barclays). The benchmark administrator entity may operate as a cost centre for these firms.
 - **Exchanges:** firms that administer benchmarks, usually under a separate legal entity, for use by customers of their trading venue business, eg, for the creation

and trading of derivatives. These include, for example, ICE Futures Europe (IFEU)/Intercontinental Exchange (ICE), LME, CMA Group Benchmark Administration (CBA)/Chicago Mercantile Exchange (CME) and Baltic Exchange Information Services (BEISL)/Baltic Exchange.

- **Specialised service providers:** benchmark administrators who, either as a core activity or alongside supplying their own benchmarks, provide services to other firms for a specific part of the benchmark provision process. For example, certain firms administer benchmarks on behalf of other entities who develop and calculate the index, while others calculate indices on behalf of benchmark administrators (eg, Moorgate Benchmarks, now part of Morningstar, and Bloomberg).
- **Academic institutions:** some universities have been calculating and administering benchmarks, with usually a small number of products. An example of this is the University of Chicago’s Center for Research in Security Prices (CRSP).

- 2.12 Benchmark administrators also operate through a variety of corporate structures. Some undertake the entire end-to-end process, from generation to distribution, via a single legal entity. Others operate through multiple entities, each responsible for a different part of the supply chain. All these activities are reflected in firms’ intercompany recharges and governed by intercompany agreements.
- 2.13 Most benchmark administrators sell other data and services in addition to benchmarks and indices, such as data insights, news, analytics, information technology (IT) and advisory and transaction services.
- 2.14 As set out in Chapter 1, we have collected information from 31 benchmark administrators, covering most of the main asset classes and business models described above.

Use of benchmarks in financial markets

Why firms use benchmarks

- 2.15 A wide variety of firms use benchmarks and indices. A large proportion of users of benchmarks are financial firms, such as asset managers, banks, wholesale brokers, Principal Trading Firms (PTFs) and trading venues. The remaining customers are non-financial firms, such as data and analytics firms, technology providers and education organisations. For certain types of benchmarks there are more niche end-users, for example, commodity price assessments can be used by power generators and cement manufacturers.
- 2.16 Firms may need a range of different benchmarks for their business needs. The table below summarises the main uses of benchmark products by financial firms and provides an illustrative example for each use case.

Table 1: Use cases for benchmarks and illustrative examples

Use	Example
Determining the value of a financial instrument	an exchange using an oil benchmark to determine the settlement price for a derivative contract
Determining the amount payable under a financial contract	a bank using an interest rate benchmark to determine the amount due in a mortgage agreement
Determining the amount payable under a financial instrument	a bank issuing a structured product which pays interest if the benchmark level meets a certain threshold at a specified date
Creating index-tracking investment products	asset managers creating a passive fund replicating an equity benchmark
Defining investment criteria	a fund investing only in securities included in a certain benchmark
Tracking performance and computing fees	asset managers earning fees if a fund outperforms a specific benchmark
Ongoing client reporting activities	a broker-dealer displaying reports to clients on how their investments are performing compared to a relevant benchmark
Risk management activities	an asset manager tracking the constituents making up a fixed income index to ensure their own fixed income fund complies within the mandated risk levels
Conducting research and market analysis	a platform using an equity index that tracks UK firms to gauge the relative size of the UK equity market

Source: FCA analysis.

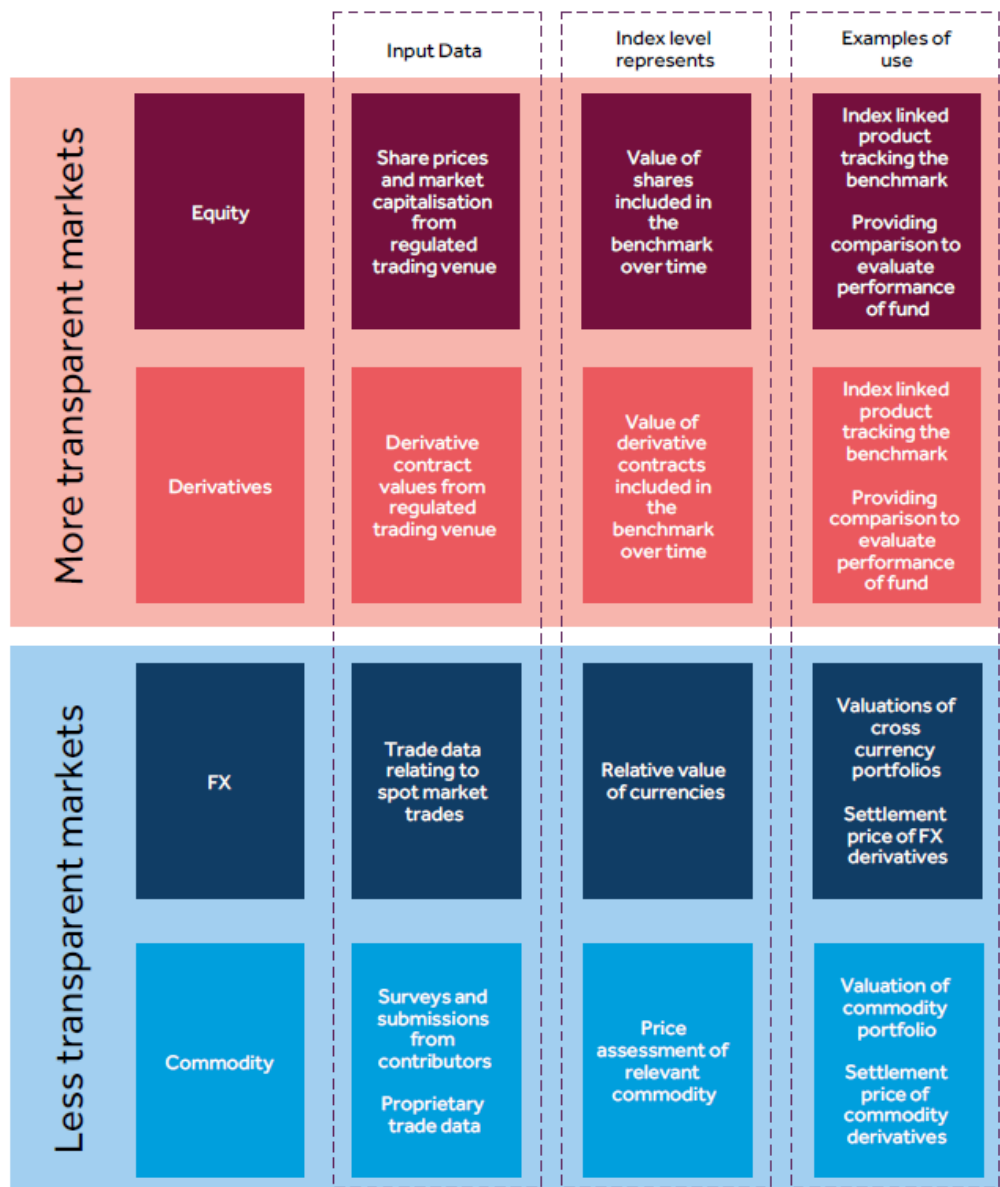
- 2.17 The list of examples is not exhaustive: several benchmarks may be used by several user types for the purposes listed in the table. In practice, however, benchmarks tracking specific asset classes are more frequently used for certain use cases.

The role of transparency in driving usage of benchmarks

- 2.18 The different markets tracked by benchmarks have varying levels of price transparency. Data from exchanges is publicly available, while over-the-counter (OTC) and spot market transactions are less visible to market participants, and input data for interest rate benchmarks is often not visible at all to other market participants. The more opaque the market, the more benchmarks are important for the purpose of price discovery.
- 2.19 The level of price transparency in the market a benchmark tracks affects their typical use case.
- 2.20 Benchmarks tracking price or value in opaque markets are needed by firms to have a common basis to determine price. Individual firms are unlikely to arrive at the same value given the opacity and potential information asymmetry between market participants. Without a common point of reference, trading would require additional negotiation over price.

2.21 Benchmarks that are based on trade data from exchanges tend to be less used for pricing financial contracts, because there is no strong need for price discovery. Instead, these benchmarks typically represent the value over time of a defined portfolio of assets (where price of these assets is known independently of the benchmark).

Figure 1: Simplified illustrative examples of typical input data and use cases of indices by asset class



Source: FCA analysis.

2.22 Below, we provide an overview of how different types of benchmarks are used and why they are important for financial and economic markets.

FX benchmarks are embedded in financial contracts and investment products

- 2.23 According to the [Bank for International Settlements](#) (BIS), in April 2022, the average daily turnover for foreign exchange OTC transactions was US\$ 7.5 trillion per day. Spot trading and foreign exchange swaps accounted for the bulk of the global turnover. Geographically, the UK was the most important location for foreign exchange transactions, with 38% of global turnover.
- 2.24 FX indices are used in many financial contracts, eg, for settling derivative contracts, measuring portfolio performance and for the calculation of other indices.
- 2.25 FX benchmarks are widely used in equity and fixed income indices that include securities denominated in different currencies, to value the securities in a single currency. These equity and fixed income indices are, in turn, used in investment products.

Interest rates are used in a wide variety of financial instruments

- 2.26 Interest rate benchmarks are used in many kinds of financial contracts and therefore play a key role in the financial system and the economy (see, for example, [European Central Bank](#) (ECB)).
- 2.27 These benchmarks provide a view of current interest rates. In their absence, financial market participants would have to constantly and independently update their view of the current interest rate (see, for example, [Benchmarks in Search Markets | NBER](#)).
- 2.28 Banks may use interest rate benchmarks to determine the interest rate at which they lend to clients, for example, by setting the rate equal to a specified benchmark plus a fixed percentage. Interest rate benchmarks might be used in loans to institutional, corporate and retail clients, including mortgages.
- 2.29 These benchmarks are also used in derivative contracts, such as interest rate swaps used to manage exposure to interest rate fluctuations, and in structured products.
- 2.30 Interest rate benchmarks are also used by bond issuers to determine the amount payable, and by asset managers in investment products, both actively and passively managed.

Commodity price assessments are used by financial and non-financial firms in the commodity value chains

- 2.31 Some benchmark administrators, particularly PRAs, provide commodity price assessments, which are publications of the prevailing market price of specific physical commodities. Some of these price assessments are used to settle physical and derivative contracts by a wide pool of market participants in each commodity market, including, among others, oil and gas, electricity, metals such as copper and gold, and agricultural goods.
- 2.32 Price assessments, by determining overall price level and settling contracts, play a key role in these markets. They are also used to trade commodity derivatives on exchanges such as NYMEX and ICE. The latter is the main use of price assessment that falls within the scope of the UK BMR, while use of price assessments in bilateral transactions outside of exchanges is often not within the scope of the UK BMR.

- 2.33 Based on information provided by PRAs, most users of price assessments are not financial firms: typically, they are firms active in the commodity value chain, from manufacturing to final goods. The largest group of customers who are financial entities are banks, which use them to trade commodity futures and hedge their exposures. Exchanges are also important users as they need to license the benchmarks to list the relevant derivatives that are traded on their venue.
- 2.34 Despite direct users not being necessarily financial firms, price assessments are key in commodity markets, which play an increasingly important role in the global economy. For example, many oil market participants such as refineries, wholesale distributors, and retailers specify contractual prices as a differential to commodity price assessments for the relevant crude oil or refined oil product. These benchmarks might impact prices for everyday goods such as petrol and diesel fuels.

Equity, fixed income and commodity derivative benchmarks are a prominent feature of investment products

- 2.35 Our analysis of responses to our information request to benchmarks users shows that equity, fixed income and commodity derivative benchmarks are the most common type of benchmarks used in investment products by asset managers, for index-tracking funds or performance benchmarking. These benchmarks and their providers are often more familiar to investors, as they are visible and often prominent features of index-tracking investment strategies. They are used more generally, for instance in the news, to describe the performance of financial markets. Based on the [2023 Investment Association \(IA\) Annual Survey](#), almost all IA members in 2022 invested in equities, and 80% in fixed income, followed by property, cash and alternative investments.
- 2.36 Index-linked strategies increased significantly as a proportion of UK AuM in the last decade, from 21% in 2012 to 33%, or one third of total UK AuM, in 2022, compared to 67% for active strategies.
- 2.37 ETFs have been the main drivers of this growth: globally, \$9.2 AuM was in ETFs in 2022, mostly domiciled in North America. Another trend in the ETF space has been the growth of active ETFs, from 1% of global AuM in 2012 to 5.2% in 2022.

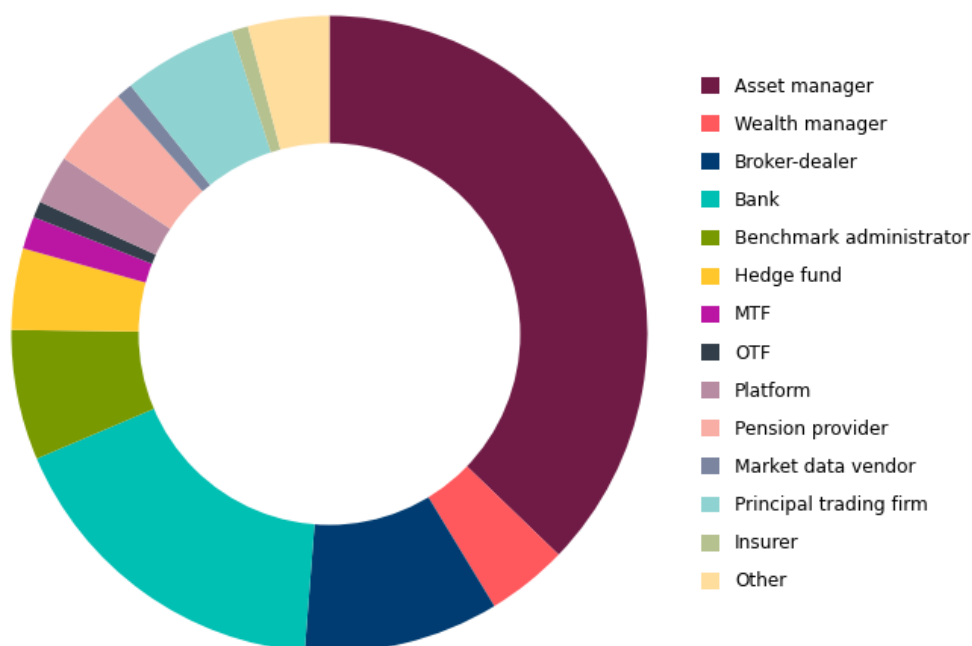
Conclusion on impact of benchmarks in financial markets

- 2.38 The overview of usage of benchmarks above demonstrates that these products are embedded in the financial system and, directly or indirectly, affect most consumers globally. Our [2022 Financial Lives Survey](#) highlighted that 3 out of 4 UK adults have a holding in a private pension, 1 in 10 invested in an investment fund or endowment, and close to 1 in 5 invested in a Stocks and Shares ISA.
- 2.39 Some financial firms are directly affected: most suppliers in our sample, with the exception of PRAs, have indicated that the majority of their customers as of 2022 are asset management firms. [As of the beginning of 2023, around 2,600 firms in the UK managed around £11 trillion of assets for UK and non-UK clients.](#)
- 2.40 Banks are also important customers as many of their business activities rely on the use of a variety of different benchmarks: for example, trading of financial instruments and commodities, lending and asset management.

Our user sample

2.41 As set out in Chapter 1, we have gathered information from a range of benchmark users on their experiences of purchasing and using benchmark products. The majority of firms in our sample have identified themselves as asset managers, and many are part of entities that do other activities as well. These include asset managers of various sizes, fund managers, pension providers, wealth managers and investment platforms. The second largest group is banks, many of which also operate in different business segments. The composition of our user sample is shown in Figure 2.

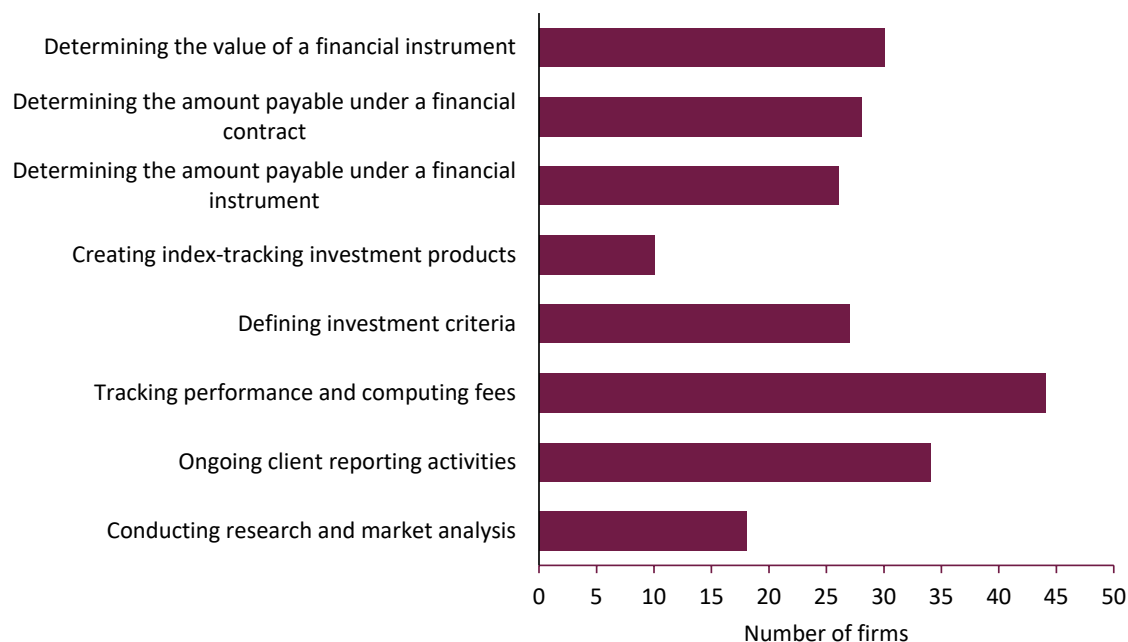
Figure 2: Composition of our user sample by firm type



Source: FCA analysis of responses to our user survey.

2.42 The firms in our sample use benchmarks for most of the use cases described above. Figure 3 shows how users in our sample use benchmark products: this allows us to interpret their responses in the context of their most relevant use cases.

Figure 3: Uses of benchmarks by firms in our user sample

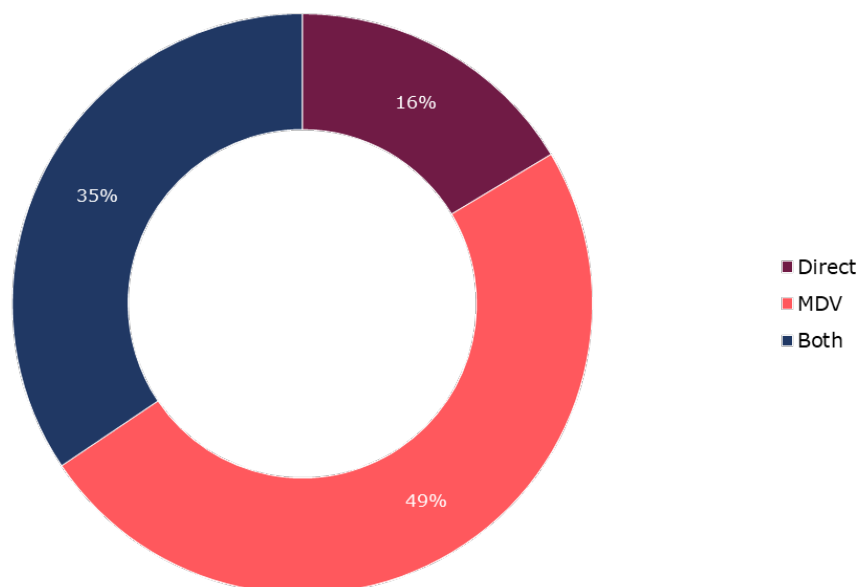


Source: FCA analysis of responses to our user survey.

Distribution and access to benchmarks data

- 2.43 Benchmark administrators generally indicated that they allow users to access their data both directly from them and through an MDV.
- 2.44 Close to 50% of users who responded to our survey access the data through an MDV, around 15% access directly from the benchmark administrator and the remaining firms use both access routes, depending on the benchmark and the use case, as shown in Figure 4.

Figure 4: Proportion of users by access route



Source: FCA analysis of responses to our user survey.

- 2.45 Benchmark users reported that the choice of access is based on three main factors: which route is more convenient, how easy it is to integrate the technical infrastructure and cost of access.
- 2.46 Users that access the data directly have a licence with the benchmark administrator and receive the index data, along with any constituents and ancillary data required, via secure file transfer protocol (SFTP), email or application programming interface (API).
- 2.47 Where access is through an MDV, benchmark administrators provide the data under a 'publication' or 'sharing' licence to MDVs. These MDVs then provide data to users under their own terms of agreement. Responses to our survey show that users typically also require a direct licence with the benchmark administrators to use the benchmark. Some benchmark administrators also charge a fee to allow users to access through an MDV. We provide more details on the types of licences benchmark administrators offer in the next section.
- 2.48 Many benchmark users appreciate the convenience of accessing a variety of wholesale data from a single MDV, which is something benchmark administrators consider in setting up relationships with MDVs. Approximately 2 out of 3 benchmark administrators in our sample said that customer requests and client preferences are key in determining which MDVs they make their benchmarks available through.
- 2.49 The remaining benchmark administrators explained that they distribute their products through popular MDVs in order to access a wider customer and client base. Some smaller and specialist benchmark administrators in our sample indicated that

they make payments to MDVs to ensure that their benchmarks are featured on MDVs' platforms.

Benchmark licences

2.50 A benchmark licence is an agreement by the owner (the licensor) of intellectual property rights relating to a benchmark, with another party (the licensee), to allow the licensee to exercise these rights, subject to terms and conditions and usually in return for a fee. There is no standard benchmark licence used across the market and the content and form of licences vary. There are, however, some common themes and components of licences. We discuss some of these components below. This is not an exhaustive list of components of a benchmark licence, but an overview and summary of typical licence components.

Licence types

2.51 Some common licence types include the following.

- **Data licence:** The licensor agrees to provide specific data in an agreed form and frequency to the licensee. The licensee agrees to use the data only in the manner permitted under the licence and pay the licence fee. A distinction between benchmark data licences is whether they provide for display or non-display use. Display use is the ability to view the data on a screen, whereas non-display use is typically delivered to the licensee in a format which allows them to input the data into an application for further use. The number of licensee individuals or offices with access to the data may be restricted or subject to an incremental fee. Non-display use may be restricted to certain applications.
- **Derived data:** Derived data is new data created by manipulating the licensor data or blending it with additional data. A benchmark data licence will usually set out what should be considered derived data and the legal rights to that derived data. The licence may prohibit the creation of derived data or vest ownership in the derived data to one or both of the parties.
- **Redistribution:** The benchmark data licence may specify whether the data or derived data may be redistributed to customers of the licensee (a subscriber). The agreement would typically impose conditions on this redistribution such as requiring the subscriber to first enter into an agreement with the licensor.
- **Product licence:** A product licence grants the right for the licensee to use intellectual property of the licensor (such as trademarks associated with a benchmark) in connection with a product. A product licence is often required prior to a firm issuing and marketing a benchmark-linked financial product. The licence fee may be a fixed amount or may depend on the volume or value of products issued. A common fee structure for funds tracking a benchmark is for the licence fee to be calculated as a percentage of AuM over the charging period. Some firms also charge fees as a percentage of the total expense ratio (TER) charged by asset managers, and some use both depending on the customer.

2.52 As discussed above, an index becomes a benchmark for the purposes of the UK BMR if it is used in certain financial products. This use is licensed under a product licence. Some administrators may offer product licences for non-BMR use. A data licence that does not include a product licence component will also be for non-BMR use. 15

suppliers responding to our requests for information indicated that they provide licences for non-BMR use.

Licensing terms

- 2.53 Whilst the licence types described above are offered by many benchmark administrators, the form of licence agreements varies. The terms of the relevant licences may be contained in a single agreement or be executed separately. Most benchmark administrators who replied to our request for information (RFI) stated that they have a standard set of licensing terms and conditions. Some benchmark administrators make all or a portion of their licence terms publicly available, whereas some are confidential.
- 2.54 Licences will operate for a defined time period (term) as agreed by the parties. After expiry of the term the contract may automatically renew unless terminated by either party.
- 2.55 Licences may include a requirement for the licensee to delete data they have received under the licence on termination of the licence.
- 2.56 Licences may exclude or limit the liability of the licensor for losses the licensee suffers as a result of using the data.
- 2.57 There is no standard scope or form of these requirements, and policies on their use may vary between licensors and in respect of specific contractual relationships. Notwithstanding the above, many licensors will have standard form licence agreements which are either non-negotiable or used as the basis for negotiations, and these will set their policy for the form and scope of termination requirements.
- 2.58 Licensors may vary licence fees according to any number of factors, and approaches vary across the market. Different types of licences may be subject to different drivers of fees. Licensors may have standardised pricing for their licences, or price may be negotiated between the parties. We have categorised some broad classes of factors that may be relevant in determining fees for a benchmark licence:
- **Value or volume of products:** Where a product licence is agreed, the licence fee may vary depending on the value or volume of issued products linked to the benchmark.
 - **Client type:** Licensors may vary their fees depending on type of client. Examples may include varying fees between buy-side and sell-side clients or academic institutions.
 - **Geographic location of use:** A licence may be provided for use in a specific region, country or office of the licensee and additional locations may increase the fee.
 - **Size of licensee firm:** Licensors may vary their price list based on categorisation of the licensee firm. This may be based on total number of employees, turnover or other measurements of the licensee firm.
 - **Number of individuals requiring access:** Licence fees may increase in proportion to the number of individuals at the firm who require access directly to the data or systems where the data is displayed.

- **Access route:** A data licence will specify how the data will be accessible to the licensee. Fees may be dependent on the method of access, such as upload to an file transfer protocol (FTP) server or via an MDV.
- **Frequency of delivery or access:** Licensors may increase fees for more frequently produced, delivered or accessed data. For instance, the data may be updated intra-day, end of day or less regularly.
- **Level of customisation:** Where a licensee requires customised data, this may be envisioned in the pricing policy of the licensor or may be subject to a fee negotiation between the parties.
- **Discount policies:** Fees may be reduced based on discount policies of the licensor. For instance, the licensor may offer time-limited discounts to incentivise new licensees or may offer discounts for licences relating to multiple benchmarks, purchasing other products or services, or based on the size of the total commercial relationship between the parties.

2.59 Whilst licensing of data or the use of other intellectual property is the standard business model for benchmark administrators, other models exist. For instance, banks may produce benchmarks for proprietary use in products that they issue. They generate revenue by selling these products to clients rather than through licensing use of the benchmark.

Bundling of indices

- 2.60 The number and types of indices covered by benchmark licences may vary across suppliers. Based on responses to our RFI, the way suppliers package their indices together differs across benchmark administrators. Some firms only offer bundles and some firms only offer their products individually, while most firms follow a mixed approach.
- 2.61 Firms often group their indices into index families, consisting of a set of related benchmarks, for example, with a specific geographic or thematic component.
- 2.62 Several firms also offer ancillary services such as market information and analytics: some of the firms include these as a package with the benchmarks, while others provide these at an additional cost. Regardless of whether they offer products in bundles or not, most firms, with a few exceptions, provide the data on index components and the relative weights of each component at no additional cost.
- 2.63 Around half of the firms in our survey who license benchmarks to external users adopt mixed bundling practices, which may vary by use case and client needs and preferences. Most established providers of benchmarks in the equity space sell bundles of indices for data access and internal usage, but only offer single-index product licences for use in a financial product.
- 2.64 Around a quarter of benchmark administrators sell their products only in bundles. Some of these firms administer a relatively small number of benchmarks and they offer them all in one bundle.
- 2.65 Finally, around a quarter of benchmark administrators offer licences for their products only at the individual benchmark level. Many of the recent challenger firms

in the equity space and new entrants in niche market areas such as cryptoassets follow this approach.

- 2.66 The nature of bundles may change over time. In our questionnaire to benchmark administrators, we asked firms to detail the frequency of contracts where the set of index families have expanded, reduced, and remained unchanged in the period 2017-2022. For most benchmark administrators, the set of index families remained unchanged. Where the index families have changed, there is no clear indication of expansion being any more or less likely than reduction. However, in our user survey, one benchmark user mentioned that there was an instance where the supplier changed the terms of the contract to offer only a bundle in place of an individual licence.

3 Market dynamics

- 3.1 In this chapter we describe how competition between benchmark providers works. We consider several market features that are generally drivers of competitive dynamics and their potential to drive market power of benchmark administrators.

Scope of the market

- 3.2 In this section, we set out some findings and considerations that inform the scope of the market for benchmark products. These are useful to interpret the findings on competitive dynamics.

Most providers and users operate on a global scale

- 3.3 Suppliers of benchmarks typically supply indices and benchmarks on a global basis, based on the information provided by benchmark administrators who responded to our survey. This is in line with the global nature of many wholesale financial markets and data markets more broadly.
- 3.4 Most suppliers have told us that they do not specifically target UK customers and that their commercial practices are set at a global level. Some suppliers that are part of international groups have separate legal entities in the UK, often for regulatory purposes, but they use their global infrastructure to research, create, license and distribute their products.
- 3.5 As a result, the information that we have collected from suppliers and users, where these are global organisations, may reflect market dynamics beyond the UK. Wherever we report information that is specific to the UK we state so.

Indices may be suitable alternatives for benchmarks

- 3.6 As set out in our [Terms of Reference](#), our scope of work includes benchmarks within the scope of the UK BMR, as well as indices more broadly, as these indices might constitute alternatives to benchmarks.
- 3.7 We are aware that a wide range of firms and institutions calculate indices (as defined within the UK BMR), including some that publish them for free. These might be substitutes to benchmarks for uses that fall outside of the scope of the BMR.
- 3.8 We have not gathered information from index providers that do not administer benchmarks. Given the unregulated nature of the activity and the undefined nature of the population of index providers that are not benchmark administrators, we considered it sufficient and proportionate to rely on information on non-BMR index activities provided by benchmark administrators and users of benchmarks and indices.

- 3.9 Many suppliers within our sample stated that they supply (usually a small number of) indices that are not intended to be used as benchmarks. Some of these indices are constructed based on input data or methodologies that do not meet the requirements of the UK BMR and are licensed to customers only for other purposes (eg, internal use and market information). In other cases, suppliers report that as there is no demand for these indices to be used as benchmarks, they are not licensed as such, even though the construction of the index does not differ significantly.
- 3.10 Based on responses to our user survey, most users use indices both within the scope of the UK BMR, ie, as benchmarks, and outside of the scope of the UK BMR. Around 60% of users reported the distinction between the two is important, most frequently because they are used for different purposes, in line with the regulatory definition. Close to 40% of users do not consider the distinction between the two to be particularly important, and some refer to them interchangeably.
- 3.11 Many indices that are not currently used as benchmarks may be alternatives to existing benchmarks in the medium-term, as they could be adapted to suit the requirements of a benchmark. However, any firm supplying indices only would have to ensure they comply with the requirements of the UK before they can license their products for benchmark use.
- 3.12 Overall, we consider it unlikely based on the responses to our RFI from suppliers and users that indices that do not comply with the BMR impose competitive constraints on established benchmark administrators.

Users choose between benchmarks tracking a specific economic reality

- 3.13 Our engagement with stakeholders and evidence gathered from market players indicates that users choose between benchmarks that track a specific economic reality, after they have chosen the type of financial product they want. An economic reality broadly refers to the market or asset that the benchmark seeks to represent: it may be defined by a combination of asset class, geographic coverage, product sector and asset characteristics.
- 3.14 For example, an oil trader will require a price assessment for oil in specific supply and delivery locations, and an asset manager might want to create a fund tracking an index that focuses on UK equities and can choose an appropriate index that tracks that economic reality. As described in the next section, around 40% of users who responded to our survey mentioned that they choose providers based on whether their benchmarks align with what they are seeking to measure – suggesting that this choice comes first, then the choice of benchmark provider. As we describe in Chapter 4, users have indicated the existence of ‘must-have’ benchmarks that track specific economic realities.
- 3.15 Past decisions by competition authorities have made similar considerations.
- [In its assessment of the acquisition of Refinitiv by LSEG](#), the European Commission (EC) found that: within equity indices there are separate markets by geographic coverage; there is an indication for fixed income indices that the market is further segmented by type of instruments and/or geography; further subsegments such as ESG indices are separate markets; and interest rates, FX and commodities constitute their own separate markets.

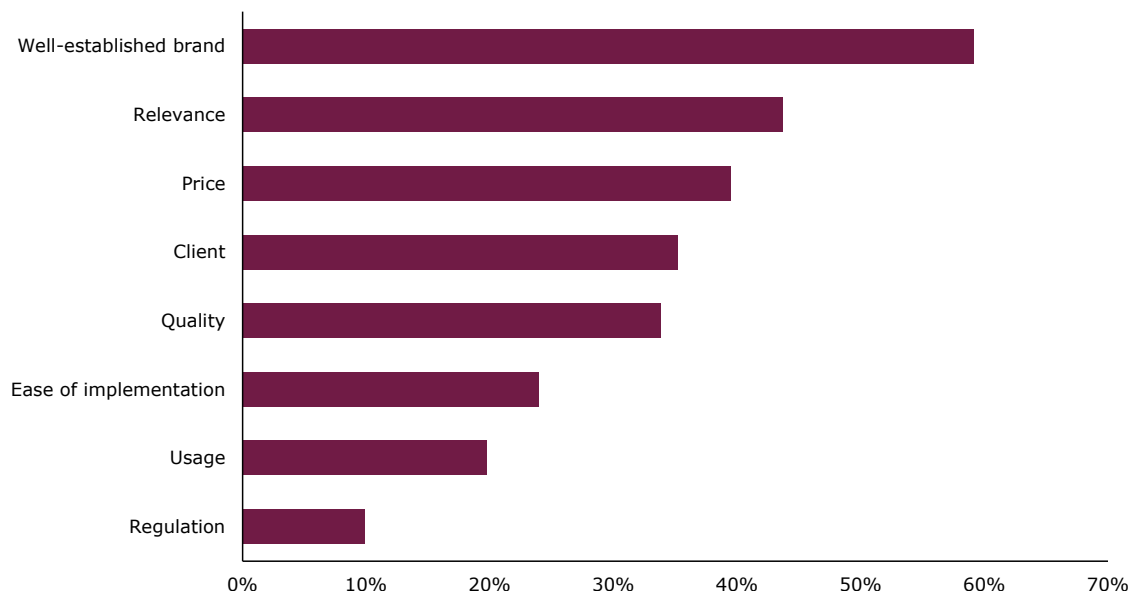
- [In its assessment of the merger between Deutsche Börse and Euronext](#) (para 148), the EC found that distinct relevant geographic markets exist for the creation and licensing of equity indices from each national market under consideration, potentially divided further into index type. Furthermore, it also concluded that there is a lack of demand substitutability for individual indices, including those referring to securities at European or national level, as they offer different exposures.
- [In its assessment of the merger between S&P and IHS Markit](#), the Competition and Markets Authority (CMA) concluded that equity indices, which were S&P's primary offering, and fixed-income indices, which were IHS Markit's primary offering, comprised distinct markets. Thus, the merging firms did not exert significant competitive constraints on each other for financial indices. For commodity price assessments, the CMA concluded that the main competitive constraints are likely to be at more granular levels than the commodity (eg, by location of production of the commodity).

3.16 While we do not conclude on a precise definition of each of the relevant markets, these findings help inform our assessment of competitive constraints and dynamics.

How users choose benchmarks

3.17 To understand the parameters of competition between benchmark administrators, we asked benchmark users about the factors they consider when choosing a benchmark provider for their business needs. Figure 5 illustrates the most common factors cited by respondents in our user survey.

Figure 5: Factors that users consider when choosing a benchmark provider



Source: FCA analysis of responses to our user survey.

3.18 We asked users whether choosing a provider with a well-established brand is important: the majority of respondents (around 60%) stated it is an important factor

of choice. Many reported that this preference is driven by their customers' preference for well-established brands, while some quote the experience and history of the provider.

- 3.19 Over 40% of users reported that a key driver of choice is the suitability and relevance of the benchmark for their chosen investment or trading strategy, or to create a specific product (eg, another index). The cost of the benchmark is also a driver of choice for around 40% of users.
- 3.20 Around 35% of users mentioned that their choice of provider is driven by their clients' preferences, with several asset managers stating this is the most important factor of choice. When asked specifically whether client preferences or requirements influence their choice of benchmarks, around 70% of respondents said it does affect their choice.
- 3.21 Around one-third of respondents reported that the quality of data, including accuracy of calculation, reliability in delivering the data, data coverage and other aspects, is a key factor of choice. Another quarter of respondents mentioned ease of integration within their systems, including the access route and delivery infrastructure.
- 3.22 Around 20% of firms reported that they prefer benchmarks that are widely used in the market. Some of these said they tend to choose benchmarks with high liquidity, others referred to an industry standard, and a few asset managers said that they prefer to use what other asset managers use to facilitate comparability for investors. A few of these users also said that these characteristics are typically associated with a well-established brand.
- 3.23 Some users have mentioned that they prefer to use providers that are on the UK Benchmark Register.
- 3.24 Other factors were mentioned by a small number of users, for example, a preference for a provider with which they have an existing relationship and that clients perceive the benchmark administrator to be independent.
- 3.25 These factors are broadly in line with what benchmark administrators have reported competing on: quality and accuracy of indices, price, independence, brand, innovation (eg, speed in developing indices for new markets), flexibility to provide custom solutions, alternative methodologies, customer support, delivery solutions, and quality of input data available.
- 3.26 Users and suppliers have reported the existence of several benchmarks that are well recognised and are considered industry standards for specific asset classes, geographies and sectors.
- 3.27 The existence of industry standard benchmarks suggests that providers might have market power in specific market segments. We consider the features of the market and potential drivers of market power below.

Network effects

- 3.28 Direct network effects arise when the benefit users experience from using a network increase as the total number of other users increases. Benchmarks are more

valuable to users if they are widely adopted by other market participants, ie, there are direct network effects in the use of benchmarks.

- 3.29 This section analyses the role of liquidity in generating network effects that lead to the market conditions we observe.

The need for liquidity drives network effects

- 3.30 Generally, liquidity is important for financial market participants: all things being equal, trading in liquid markets involves lower transaction costs because there is wide availability of counterparties and financial instruments. Some markets are more liquid than others, with a wide pool of trading parties and financial instruments. This partly influences demand for benchmarks. For example, it may explain why equity indices and especially indices focusing on large-cap firms attract more investment. With more liquid constituents, it is less costly for asset managers to rebalance their portfolios when the benchmark administrator changes the index composition.
- 3.31 In markets where liquidity is low, benchmarks can improve liquidity. Network effects in the use of benchmarks arise because the more a benchmark is used, the more liquidity increases in the underlying market. This is because widespread use of a benchmark lowers transaction costs, making it easier and less costly for financial market participants to trade.
- 3.32 There are two main channels through which benchmarks reduce transaction costs and increase liquidity, which we describe in turn.

Increased price transparency

- 3.33 To trade in certain markets, such as commodities and FX, market participants need to form a view of the price in the underlying spot market. The executed prices of spot trades are generally unknown outside of the parties to the trade. Large dealers executing high-volume trades on a regular basis are at an advantage, but smaller parties have limited information on the prevailing price and the discovery process might be costly.
- 3.34 Certain benchmarks use data on transactions in underlying spot markets as an input to develop an aggregate view of the price of a good, therefore providing transparency to the market.
- 3.35 All things being equal, reducing the pricing information asymmetry associated with non-transparent markets typically leads to reduced transaction costs. This includes reducing spreads between bid and offer quotes, as a view on the market price can guide negotiations. Greater transparency can also make it easier and less costly for buyers to identify suppliers offering lower prices.
- 3.36 Information asymmetry can lead to inefficiently low volumes of trade. For example, a small buyer may need to execute a one-off transaction to acquire foreign currency. In the absence of a benchmark, the buyer would face significant costs in identifying the best price and negotiating with better informed sellers. Potentially, this can lead to transactions not taking place. A benchmark reduces transactions costs though presenting buyers with a 'market price', leading to more transactions taking place than in the absence of the benchmark, and greater liquidity.

- 3.37 The market for commodity price assessments is one example of this effect, but it is equally applicable to other markets where pricing information is generally unknown absent a benchmark with access to trading data.

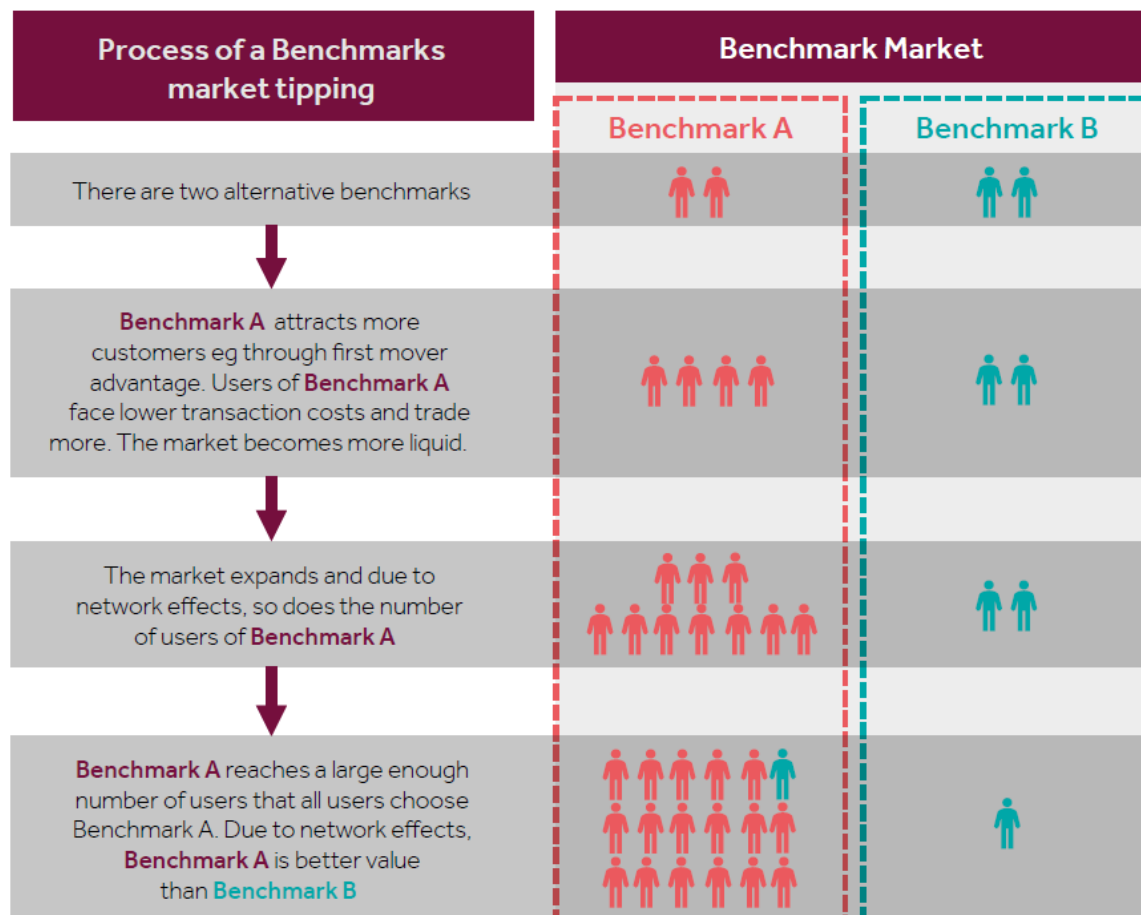
Availability of financial contracts linked to the same benchmark

- 3.38 As outlined in Chapter 2, financial contracts can reference a benchmark, eg, an FX benchmark that is used as the settlement price for an FX futures contract. During their lifetime, financial contracts are then traded between market participants.
- 3.39 When financial contracts reference the same benchmark, they are more homogenous. It is easier to trade homogenous products as traders can more conveniently compare products and assess bids and offers within a market. Therefore, as more market participants trade with financial contracts linked to the same benchmark, search costs are reduced and it becomes easier to execute trade, reducing transaction costs.
- 3.40 Additionally, when financial contracts reference the same benchmark, firms can hedge their positions without the basis risk associated with using a different benchmark that may lead to an unintentional mismatch between assets and liabilities. For this reason, hedging firms benefit from using the same benchmark at 'open' and 'close'.
- 3.41 Lastly, availability of derivatives linked to the benchmark makes it easier to replicate a benchmark's exposure, for example, for asset managers replicating an index-linked fund.
- 3.42 Overall, high liquidity of financial contracts that reference the same benchmark is preferred by market participants. This leads to increased usage of a benchmark when creating financial contracts, reducing transaction costs and increasing liquidity further.

Market tipping as a result of direct network effects

- 3.43 Direct network effects associated with market participants coalescing around the same benchmark can lead to market tipping and benchmarks becoming entrenched as the market standard.
- 3.44 Figure 6 illustrates this process. Initially, there are 2 alternative benchmarks for firms to choose from, A and B. Benchmark A becomes more widely used, for example due to first-mover advantage, lower prices or other reasons. Increased liquidity leads to lower transaction costs associated with using Benchmark A and the market for Benchmark A becomes more liquid.

Figure 6: Illustrative example of network effects resulting in market tipping towards a specific benchmark



Source: FCA analysis.

- 3.45 The direct network effects of using Benchmark A reinforce its use and the number of users continue to rise until all users choose Benchmark A. This causes the market to 'tip' and Benchmark A becomes the market standard.
- 3.46 This market structure benefits market participants due to reduced transaction costs. Benefits generated by network effects are generally stronger in opaque OTC markets, such as commodities and derivatives, due to asymmetric information between buyers and sellers.
- 3.47 However, once a benchmark becomes the market standard it is difficult to displace, limiting competition 'in the market'. In a competitive market, firms compete to gain customers and gradually increase their market share. Market tipping leads firms to compete 'for the market', meaning that one provider will typically have 100% market share (or close to 100%) and competitors try to win over the entire market. This imposes some competitive constraints on the administrator of the industry standard benchmark.

3.48 Indeed, effective competition can still occur in the markets where a widely adopted industry standard is yet to emerge. For example, we have seen entry and expansion of new benchmarks into ESG and cryptoasset markets. However, once a provider is established, it is difficult to switch away.

Potential for displacement of a market standard benchmark

3.49 Where benchmarks are used to price financial contracts, market-driven displacement of an industry standard benchmark is unlikely. This is because:

- The cost an individual user would face if they were to independently start using a benchmark other than the industry standard is high, as they would struggle to find suitable counterparties and hedge their positions. Some respondents to our user survey, mostly banks and hedge funds, have reported that they would not deviate from the industry standard, or they would face a lack of liquidity and price mismatch across financial contracts.
- There is limited potential for a critical number of users to switch from one benchmark to another at around the same time. Financial transactions are executed and financial products are created and traded continuously; some remain outstanding for many years. The number of market participants may be high in some markets which may make such a move more difficult and, while there may be large users that may influence the market, particularly where there are few participants, this would require considerable effort and coordination among users.

3.50 Displacement of the market standard benchmark is uncommon. We have observed a few examples of full market-wide displacement as follows:

- Transition away from LIBOR, which took multiple years and significant regulatory intervention.
- Migration to a new gasoline commodity price assessment in 2004 due to a perceived reduction in appropriateness of the market standard benchmark. Significant coordination was required to facilitate this displacement, requiring 12 of the largest traders to switch almost simultaneously.

3.51 Responses to our demand-side survey are mixed as to whether displacement is possible. 49% of users indicated that they believe it is possible, however, many flagged it would require mass movement of market participants. In terms of factors that may lead to benchmark displacement, the most common was regulatory intervention or external factors (eg, political), followed by loss of reliability and trust in the benchmark, significant increase in cost and restrictive licensing. This would suggest a severe loss in trust or in affordability of the industry standard benchmark rather than competitive pressure.

3.52 In summary, market-driven displacement is unlikely due to the high costs associated with switching to a new benchmark. We have seen few examples where this led to market-wide displacement of a benchmark.

Brand awareness of end investors

- 3.53 Competitive dynamics among benchmark administrators are, in part, shaped by strong preferences of investors for certain benchmarks and benchmark administrators.
- 3.54 Investors' preferences for well-known benchmarks providers are not inherently harmful. A benchmark administrator, as any other firm, builds brand value over time by providing high quality products and being reliable. The brand, scale and history of a benchmark administrator may signal those qualities to investors. Brand awareness may result in certain benchmarks becoming the market standard and become a 'must-have' for benchmark users.
- 3.55 Inelastic demand for established benchmarks prevents benchmark users from switching away from these established benchmarks.

Asset managers choose benchmarks based on their clients' requirements and preferences

- 3.56 As set out in Chapter 2, benchmarks are commonly used by asset managers in investment products. In actively managed funds, a benchmark may be selected and included in the fund prospectus, to compare the performance of the fund with the performance of the benchmark, and potentially to compute the performance fees. Passive funds explicitly replicate the exposure of a named benchmark, and the benchmark often features in the fund name.
- 3.57 Asset managers market these investment products to institutional and retail investors, and certain funds are traded on exchanges – these ETFs are generally passive funds, but, as mentioned in the previous section, actively managed ETFs have been growing in popularity. For both passive and active funds, the benchmark is a prominent feature of the investment product and is readily visible to investors when looking at the details of the fund.
- 3.58 Around 70% of benchmark users in our sample noted that customer requirements and client preferences influence the choice of benchmark or index that is used. In particular, most asset managers and banks reported that they are a key factor.

Investors prefer well-established benchmarks

- 3.59 Asset managers have generally reported that their clients' tend to prefer benchmark providers they are familiar with, and some mentioned a reluctance to adopt alternatives even if they are cheaper. Some have reported that investors associate well-established brands with trust in the quality of the data and that they prefer a widely used benchmark because they find it easier to compare investment products that reference the same benchmark.
- 3.60 The majority of users who reported that client preferences for well-established brands are important for their choice of benchmarks, use benchmarks in investment products. A majority of investment products linked to benchmarks primarily reference either equity or fixed income benchmarks. Client familiarity with the

benchmark is less important for benchmarks whose use is generally not as the primary reference in investment products, such as FX and interest rate benchmarks.

- 3.61 One important use of benchmarks is in investment funds, where the strategy is to replicate a benchmark and therefore the benchmark is a prominent feature of the product.
- 3.62 Our analysis of public fund data shows that investment value tends to concentrate around specific providers for specific investment strategies. Based on AuM invested in UK funds by benchmark administrator of the referenced index, we find high concentration in certain asset classes and geographies. For example: 91% of AuM in equity funds available in the UK with a UK geographic focus is linked to a FTSE benchmark; 63% to S&P Dow Jones benchmarks for US geographic focus; and 78% to MSCI benchmarks for global geographic focus. Further details of our analysis of public fund data is available in Chapter 6.
- 3.63 Consumer research conducted as part of our Asset Management Market Study (2016) found that 19% of fund buyers considered the fund's benchmarks before making a choice to purchase the fund.

Asset managers' and investors' preferences are misaligned and demand for well-established benchmarks is inelastic

- 3.64 As outlined above, the choice of benchmark used in investment product is de facto not made by asset managers, who enter into licence agreements with benchmark administrators, but by investors.
- 3.65 This is not a problem per se – well-established brands may attract more investors because their products and service are of a higher quality than benchmarks offered by less established brands.
- 3.66 In theory, the incentives of asset managers and investors should be aligned. Both groups are likely to value a high-quality product that is well-suited for their investment strategy. Other things being equal, both groups are likely to prefer a lower price to a higher price, as the benchmark licence fees would at least in part affect the fees paid by investors to asset managers, therefore impacting the total cost of the investment.
- 3.67 Responses to our user survey indicate that, generally, asset managers are aware of the range of benchmarks and suppliers available in the market for their business need. Some have reported that they have sophisticated procurement processes. Others have highlighted that, while they would have a preference for selecting benchmark providers based on factors like quality and price, they effectively are bound by their clients' requirements. Some asset managers make use of services offered by companies that compare wholesale data products across providers, which highlight the vast differences in the prices users pay for these products.
- 3.68 By contrast, it is unclear whether investors, both institutional and retail, can or in practice do evaluate options as effectively. In particular, they seem to attach high value to a well-established brand and widely used benchmarks compared to price and quality.

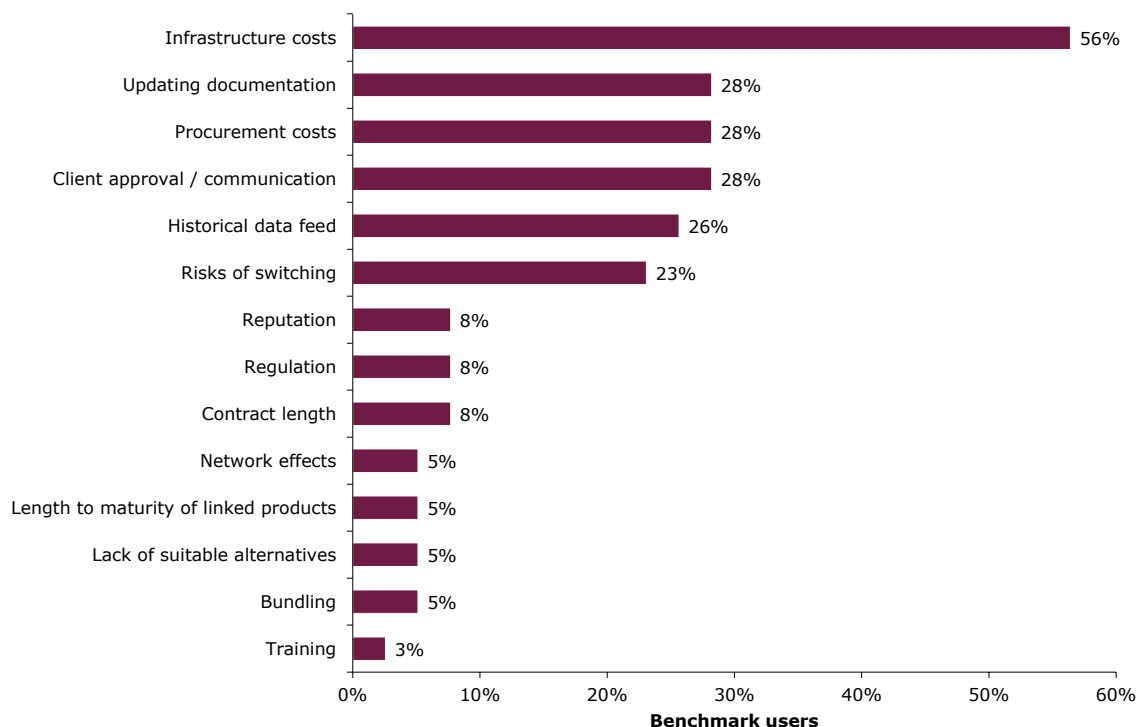
- 3.69 First, investors may not have full visibility of the fees charged by index providers. Licensing fees charged by benchmark administrators to asset managers are generally subject to confidentiality clauses. The fees charged by asset managers are a factor of choice, but investors either have limited awareness of the impact of index licensing costs on fees or the value they attach to using a well-established brand is higher than the value they attach to a low price.
- 3.70 Second, based on asset managers' view of their customers' preferences, investors likely consider the reputation of the benchmark administrator an indicator of reliability and quality of the benchmark. However, it is unclear whether investors compare alternative benchmarks and are aware of the quality differences between providers – for example, they might not be familiar with the UK BMR and know that it requires all UK benchmark administrators within its scope to comply to certain standards of quality.
- 3.71 Asset managers are likely to have more expertise and information than single investors, allowing them to better evaluate different benchmarks.
- 3.72 Some users have told us they were unsuccessful in their attempts to persuade customers to use alternative providers. While we heard a handful of examples of asset managers being successful in convincing their client, these were the exception rather than the norm and required considerable effort.
- 3.73 This does not necessarily imply that there is no value to investor in an investment product referencing a well-known benchmark, as simplicity and familiarity reduce search costs and provide reassurance, nor that the quality of these benchmarks is low. However, it indicates that brand awareness of end investors might be creating inelastic demand for well-established benchmark providers and increasing their market power, ie their ability to operate and set prices in the market independent of competitors.

Barriers to switching

- 3.74 Barriers to switching refer to the impediments faced by existing users of benchmark administrators to change to alternative providers. Existence of high barriers to switching in a market may increase the market power of incumbent firms with already high market share, allowing them to consistently charge prices higher than competitive levels. For instance, if there is an alternative new provider who charges a lower price for the same quality product compared to an existing firm, customers will likely not be inclined to switch if high switching costs offset the savings made. Switching costs may sometimes lead to benefits for some users if it leads to aggressive price competition between firms for each other's customers.
- 3.75 We asked users what costs are associated with switching away from an old supplier and setting up a relationship with a new benchmark provider. Benchmark users provided mixed views on the type and weight of costs that would be incurred when switching to an alternative provider. Around 53% of users who responded to this question mentioned some costs associated with switching and approximately 30% of users did not consider costs to be a significant barrier to switching. The rest of the respondents either were not aware of the costs or said switching will be a barrier, but did not mention costs explicitly.

3.76 Some of the commonly mentioned barriers to switching are illustrated in Figure 7.

Figure 7: Type of switching costs reported by benchmark users



Source: FCA analysis of responses to our user survey.

3.77 These costs can also be classified in three broad categories: (i) costs of onboarding a new provider, (ii) structural barriers to switching linked to the nature of benchmarks, and (iii) commercial practices of existing benchmark administrators.

Costs of onboarding a new provider

3.78 The most commonly identified costs incurred as part of establishing a relationship with a new supplier include the following.

- **Infrastructure costs.** When switching providers, users will need to integrate the new product, including the accompanied dataset, into internal and vendor systems. This process may also require changing the technical interface and data structure across multiple systems. A few users who access products indirectly through MDVs have mentioned that this cost may be mitigated if the new benchmark is also accessed indirectly from their existing MDV.
- **Procurement costs.** Several users have mentioned that negotiating and onboarding a new supplier, including agreeing legal, commercial and licensing terms, represents a costly effort, creating an impediment for switching. This issue is likely as a result of the lack of transparency and other terms and conditions by benchmark administrators.
- **Risks of switching.** A few users indicated that the lack of certainty regarding the quality and successful integration of the new benchmark also serves as an impediment to switch to alternative benchmarks. This could be further exacerbated by errors in transition and differences in methodology for calculation.

- 3.79 These costs are somewhat mitigated by the fact that we found that benchmark users often multi-source, licensing from several benchmark administrators who offer must-have benchmarks. Also, as providers often license in wide packages users might already have licences for alternatives to must-have benchmarks. For example, we found that fund managers, particularly large ones, have funds tracking all the main providers (see Chapter 6).

Structural barriers to switching linked to the nature of benchmarks

- 3.80 These barriers are specific to the nature of products in this market, including network effects, brand awareness and the lack of suitable alternatives. These issues are explored earlier in this chapter. Additionally, the users also mentioned the following structural barriers that increase the cost of switching.
- **Client approval/communication.** Some users have stated that before they can switch to an alternative benchmark provider, they are required to obtain approval from clients regarding the use of the new benchmark. Furthermore, some other users have mentioned that any change will have to be communicated to all existing customers, which may be an additional impediment.
 - **Updating documentation.** Switching to an alternative providers may require updating all existing legal documents, and making edits to all relevant marketing materials, which have been stated by some to be burdensome.
 - **Reputation.** A couple of users have mentioned that switching to alternative benchmark administrators may be reputationally costly. This may be due to reputational risks with existing benchmark providers or being perceived to deviate from the market standard benchmarks for cost reasons.
 - **Regulation.** A few users mentioned regulation as a cost to switching, with one suggesting this is because of different regulatory and legal frameworks that suppliers may operate under in different regions around the world if they operate global businesses.
 - **Length to maturity of linked products.** A small number of users stated maturity periods for existing products may prevent switching to a new benchmark - users mentioned equity derivatives which are due to mature in future years, as well as term products and loans, where switching may be deemed to breaking client agreements.

Commercial practices of existing benchmark administrators

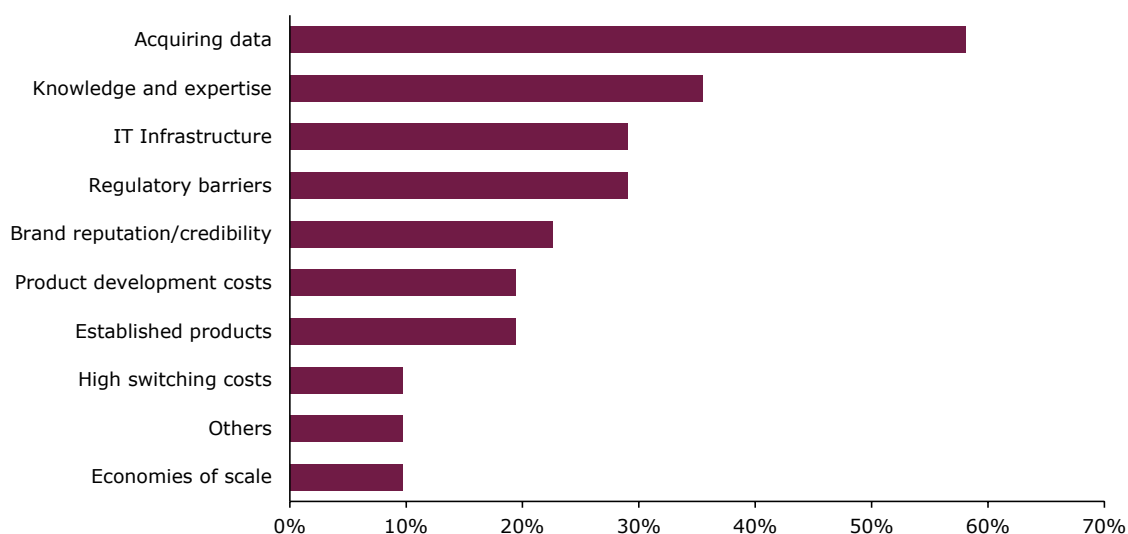
- 3.81 These costs arise due to the commercial practices and contractual obligations by existing suppliers, including the following.
- **Historical data.** As part of commercial clauses, switching to a new benchmark administrator may require the user to either (i) purge all historical data from the systems, which will be procedurally and financially costly, or (ii) continue to pay a fee to continue to access historical data. Some users have mentioned this is the primary barrier to switching. Elsewhere in our survey, we asked users whether contractual obligations regarding historic data constituted an impediment to switching. Most users in our survey stated that clauses related to historic data constitute an impediment of switching. We explore this issue further in Chapter 5.

- **Contract length.** Based on responses to our user side survey, contract lengths may vary across providers. However, most users reported that their contracts were typically a fixed contract 1 to 3 years in length, with pre-agreed increases in the costs over the length of the contract, or annual rolling contracts which auto-renew unless either party serves their notice. Some users mentioned this is an impediment to switching. Users noted that longer term contract lengths may also be beneficial due to providing cost certainty and avoiding the need to negotiate frequently.
- **Bundling.** In isolated cases, users mentioned that switching to an alternative benchmark will increase global costs as they will need to continue to pay for the package from the old provider, as well as a new index or a whole package from the new provider.

Barriers to entry and expansion

- 3.82 Barriers to entry or expansion refer to the structural or strategic impediments of the market that make it costly or difficult for new or existing firms to gain market share.
- 3.83 We asked benchmark administrators what the key barriers to entry and expansion are that they or other market participants may face, the responses we received as summarised in Figure 8.

Figure 8: Categorisation of entry and expansion barriers mentioned by benchmark administrators



Source: FCA analysis of responses to our qualitative survey to benchmark administrators.

- 3.84 The above entry barriers can be more broadly grouped into (i) access to data inputs, (ii) high start-up costs, (iii) regulatory barriers to entry, (iv) intrinsic advantages of established firms. These will be explored in more detail below, followed by a discussion on how supply-side substitutability by benchmark users may mitigate these barriers to a certain extent.

Access to data

- 3.85 Benchmark administrators require data to develop their products: this includes, among others, data from exchanges for pricing, and fundamentals data (eg price-earnings ratio) for selection purposes.
- 3.86 Several benchmark administrators stated that costs of acquiring data from exchanges have been on an upward trend in recent years. They report increased licensing costs and new additional scenarios where licences are required. Furthermore, some firms have increasing costs for the computational power and expertise required to handle large datasets for their index provisions. Some firms have attributed this increasing trend of costs to high market power of upstream firms, resulting from the lack of suitable alternative providers.
- 3.87 Other input data required might be less costly: for example, [data about crypto transactions is generally publicly available](#).
- 3.88 Based on responses to our requests for firms' financial information, on average, data costs incurred by sample firms which submitted financial data represented a more significant portion of challenger and new entrants' total costs, as opposed to established firms. The most extreme cases related to instances whereby challenger firms incurred significant data-related costs during the initial stages of their business.
- 3.89 Most benchmark administrators have indicated that, apart from high costs, they have not faced difficulties in obtaining the inputs they needed in the last five years. However, some benchmark administrators have reported instances where they have had difficulty accessing inputs due to perceived unreasonable conditions on data use or poor data quality. A few firms have mentioned instances where they faced difficulties in obtaining data due to their competitor being vertically integrated with the upstream supplier.

Start-up costs

- 3.90 In addition to accessing data, benchmark administrators are expected to incur other costs to setup their business. Based on their responses to our requests for information, introducing new indices into the market involves costs in, among others, research and development, technology infrastructure, distribution networks, client engagement, and human capital. Additionally, in our [Trade Data Review](#) we found that setting up relationship with exchanges is costly, further increasing start-up costs.
- 3.91 Based on the financial data we received from sample benchmark administrators, challengers and new entrants appear to have incurred relatively higher IT expenditure, compared to established firms. Some challengers and new entrants reported significant one-off costs associated to developing IT infrastructure. IT costs relate to utilising and maintaining infrastructures, cloud systems, data centre capabilities and IT support.
- 3.92 In addition to start-up costs directly acting as barriers to entry and expansion across all firms, these costs may be relatively more disadvantageous for new and smaller firms through economies of scale and scope. These are discussed below.

Supply-side economies of scale

- 3.93 Supply-side economies of scale refer to the cost advantages resulting from a large scale of operation. If a firm incurs high fixed costs, as compared to variable per-unit costs, then a large market size enables it to spread the fixed costs over a greater number of units, leading to a lower average cost per customer.
- 3.94 As is common with many other data products, once benchmarks are produced, they incur relatively lower variable costs per unit of customer. The exceptions to this may be for bespoke indices where the product is tailored towards individual customers.
- 3.95 This imbalance of fixed and marginal costs will result in cost advantages for incumbent benchmark administrators with large market share, making it difficult for small and new firms to achieve profitability without a sufficiently large client intake.
- 3.96 However, there are some niche use cases for certain benchmarks (eg custom indices, new asset classes) which are required by a relatively smaller market segment. In these specific cases, the supply-side economies of scale are likely to be smaller.

Economies of scope

- 3.97 Economies of scope refer to the cost savings availed by firms when producing a larger variety of products and services. This is likely to occur when two or more distinct products can share the same resource input, which reduces costs compared to the scenario where each product has separate inputs.
- 3.98 Based on our analysis of financial data provided by some established firms, we found that those with international arrangements benefit from shared cost structures. This suggests that some sources of key inputs can be, to a certain extent, shared across products in different markets.
- 3.99 The resulting cost savings may be beneficial if passed through to end-users. However, this may increase barriers to entry and expansion for new and emerging benchmark administrators. For example, a few established firms in the market for equity benchmarks have started administering indices for cryptoassets, potentially at a cost advantage relative to new entrants specialising in the market niche.

Regulatory requirements

- 3.100 Benchmark administrators aiming to provide services in the UK need to comply with requirements of the UK BMR. The UK BMR builds on the IOSCO Principles for financial benchmarks for ensuring benchmarks are robust and reliable.
- 3.101 Around one-third of benchmark administrators have mentioned that these regulatory requirements act as a barrier to entry and expansion. This is through, for example, greater requirements to establish a robust governance and control framework or through added requirements for ESG reporting.
- 3.102 Even if there is a potential for regulation to increase barriers to entry which may soften competition, these are necessary to deliver benefits beyond competition, as the UK BMR addresses, among other things, conflicts of interest and governance, and controls for reducing the risk of manipulation of benchmarks.

Intrinsic advantages of established benchmark administrators

- 3.103 Based on responses to our information requests, several benchmark administrators have mentioned that the structural features of the market, including network effects, brand awareness, high switching costs, and reputation, increase the barriers to entry and expansion of new and challenger firms.
- 3.104 Network effects and brand awareness, as explored in greater detail above, constitute barriers to static competition. If an industry standard benchmark is already widely adopted by the industry, then it is a must-have for users. Combined with the high level of brand awareness in the industry, this makes it burdensome and difficult for new entrants to displace current must-have benchmarks and gain market share.
- 3.105 Additionally, high switching costs faced by benchmark users also increase the difficulties for new benchmark administrators to gain market share. This issue has been explored in greater detail above.
- 3.106 Finally, several benchmark administrators have mentioned that building reputation and credibility in the market is an important factor for client uptake, which imposes a further challenge for new entrants to overcome.

Supply-side substitutability may mitigate these barriers to an extent

- 3.107 Supply-side substitutability refers to whether, to what extent and how quickly, firms who are already in the value chain but not necessarily administering benchmarks, can switch allocation of resources to produce the given output (ie benchmarks) in response to sustained high prices or low quality from existing suppliers. A high level of supply-side substitutability would thereby lessen the market power of incumbent firms.
- 3.108 There is evidence of some customers, primarily investment banks but also some asset managers, choosing to administer their own indices for their financial products (self-indexing). Such financial products include swaps, funds, notes, and certificates. These firms can leverage their existing client base to compete in the market for benchmarks. Several benchmark administrators have noted recent trends in self-indexing as a competitive threat to their business model.
- 3.109 Approximately 35% of the 31 benchmark administrators we have surveyed in this market study conduct self-indexing. These firms, most of which are investment banks, stated that they often do not directly compete with industry-standard indices, instead filling gaps to meet client demand.
- 3.110 In our user survey, we asked users if they had considered producing and using their own benchmarks and indices, as an alternative to benchmarks sourced from administrators (self-indexing). Based on the benchmark users' responses to our information requests, around 22% of respondents considered engaging in self-indexing. For the 78% of respondents who had not considered self-indexing, commonly cited reasons include costs, risk and complexity of self-indexing (including regulatory barriers), the need for an independent measure for client credibility and a limited ability to influence client or market preferences.
- 3.111 The most common incentive for self-indexing by investment banks appears to be the need for specific indices that are not available in the market. Some indices are also

created as a structured solution to meet a specific client's or group of clients' investment intentions, with the firms preferring the control on product design and pricing, and not being required to rely on third parties. Some firms also mentioned cutting costs as an important factor in deciding to conduct self-indexing. A common challenge of self-indexing, as mentioned by the firms, is the management of conflict of interests between investment management and index creation.

- 3.112 Self-indexing may put some competitive pressure on existing firms with market power. However, this effect is likely to be limited as self-indexing firms generally do not license the benchmarks they produce, using them primarily for their own financial products. This suggests that only a relatively small portion of the market (their own) pose a competitive threat to existing administrators.
- 3.113 Additionally, the self-indexing firms still need to purchase other benchmark products, particularly the must-have indices, from other administrators. Furthermore, the most common incentive for self-indexing is the unavailability of the required index in the market, suggesting that the large and existing benchmark providers do not offer a suitable alternative for these products to constitute a competitive threat. Finally, firms who may consider self-indexing still face some barriers to entry, such as regulation, brand reputation, data acquisition and human capital.

Summary on barriers to entry and expansion

- 3.114 In summary, there are high barriers to entry and expansion in the market for benchmark provision. These can be broadly categorised into:
- **Increasing costs of data:** Data is a key input for benchmark administrators, and its price has been rising in recent years.
 - **Start-up costs:** Benchmark administrators are expected to incur significant costs for product development, including in IT infrastructure, human capital, and distribution networks.
 - **Regulatory barriers:** Benchmark administrators are required to be authorised by UK BMR. In addition, they may face costs for regulatory compliance. However, even if regulatory barriers soften competition, they are in place for benefits beyond competition.
 - **Intrinsic advantages of established benchmark administrators:** Structural features of the market, including network effects and brand awareness, increase the difficulties for new and challenger firms to gain market share.
- 3.115 These barriers to entry may be mitigated to a certain extent by supply-side substitutability of other market participants in the industry. This is evidenced by the recent increase in the supply of benchmarks by users (self-indexing), particularly investment banks. However, this effect is likely to be limited as the most common incentive for self-indexing is the unavailability of the required index in the market, suggesting that they do not put any substantial competitive pressure on existing and established benchmarks.
- 3.116 Nonetheless, these barriers to entry are not insurmountable as there is evidence of several new entrants in the market, as discussed in Chapter 4. Most of these entries have been in niche market segments.

Vertical integration

3.117 Vertical integration is present where one or more firms operate in multiple levels of the value chain. For example, a benchmark administrator is said to be vertically integrated upstream if it also produces trade data that is used as an input for benchmarks, and vertically integrated downstream if it also operates as an asset manager who utilises benchmarks for their investment activities. Firms can become vertically integrated by expanding their business activities into further segments of the value chain or through acquisition of firms already operating at another level of the value chain.

Vertical integration is common along the benchmarks supply chain

3.118 We are aware of many cases of vertical integration across the wholesale data value chain. There are combinations of trading venues, benchmark administrators, market data vendors and ratings providers being part of the same corporate group.

3.119 First, some benchmark administrators are integrated upstream with trading venues, which may supply key input data for the creation of their products. For instance, FTSE Russell and Refinitiv are part of the London Stock Exchange Group (LSEG), who also owns London Stock Exchange (LSE), a trading venue. There is evidence of other trading venues who have expanded their operations to producing benchmark products. These include Chicago Mercantile Exchange (CME), Baltic Exchange, Intercontinental Exchange (ICE) and London Metal Exchange (LME).

3.120 Consolidation has been increasing in recent years along the benchmarks value chain, with large firms entering the market through acquisitions or benchmark administrators in different market segments merging. Some of these mergers have been subject to regulatory scrutiny (eg [LSEG/Refinitiv](#), [S&P/IHS Markit](#)).

3.121 Second, we have seen several recent examples of expansion by MDVs into the supply of benchmarks, including that of Bloomberg and Morningstar. MDVs collect and provide a large variety of data including trade data and indices, in addition to other services such as analytics. Benchmarks are one of the many inputs for MDVs. As MDVs may already have the brand reputation and technological infrastructure for distribution of these products, they may face lower entry barriers for benchmark provision.

3.122 Finally, some users of benchmarks, including some investment banks, have integrated upstream to create their own indices that are used for their own financial products (self-indexing).

Potential benefits of vertical integration

3.123 Vertical integration may yield benefits for users through lower prices and increased efficiency.

3.124 As production processes and assets in two levels of the supply chain are brought under unified ownership and control, this eliminates the need for a “double markup”, also known as double marginalisation. Additionally, the cost of production of the combined entities might be lower because there might be efficiencies in the generation process and savings on transaction costs, potentially implying lower

prices. A benchmark administrator might also have better control over input data, improving the quality of their products.

- 3.125 Users who need to license both the input data and the benchmarks might also benefit from reduced procurement costs from having to contract with one firm only, and they might obtain a better deal by purchasing multiple products from the same firm.
- 3.126 The benefits of joint procurement might not necessarily materialise in all cases. For example, many users told us they license trade data and benchmarks from firms in the same group, however around 80% said they procure them separately. They explained that this is either preferable because of their own organisational structure and use of the data, or because the suppliers do not offer the two products as a bundle and keep procurement separate. Trade data is subject to regulatory requirement of licensing on fair, reasonable and non-discriminatory terms, so suppliers might prefer to keep their sales processes distinct.
- 3.127 Vertical integration may also have a beneficial impact on competition. As described above, there is evidence of some benchmark users and market data vendors utilising their scale and relationships in other parts of the value chain to expand operations upstream. This may increase the competitive constraints on large and established benchmark administrators, reducing their market power. Over time, several companies active in the wider wholesale data industry have become benchmark administrators, some of which have been successful in expanding.

Potential harm of vertical integration

- 3.128 Vertical integration may increase incentives for foreclosure of competing businesses. This may be through (i) input foreclosure, where a vertically integrated firm restrict rivals' access to key inputs or raise rivals' costs, or (ii) customer foreclosure, where a vertically integrated firm restricts access of a customer to a rival supplier upstream. Foreclosure may be 'total', where rival firms are forced to exit the market due to sustained losses, or 'partial', where rival firms are materially disadvantaged and are not able to compete as effectively.
- 3.129 A vertically integrated firm will have the ability to foreclose if it has substantial market power in one or more parts of the value chain. Even if it has the ability, its incentives to foreclose will depend on the profitability gains of doing so. For example, the gains from input foreclosure in terms of market share in the downstream market may be offset by the loss of revenue from that customer buying the input.
- 3.130 Due to the dynamic nature of competition in the market for benchmarks (with new market opportunities arising or demand changing over time), firms have a first-mover advantage when creating new products. This may increase the incentives for foreclosure by vertically integrated firms, through delayed access of data to rival firms for products in new and evolving markets.
- 3.131 Additionally, we have seen evidence from benchmark providers that the costs of acquiring input data have been rising in recent years. A few firms have raised concerns that they face difficulties in obtaining necessary data due to commercial practices of firms who are vertically integrated with a competing benchmark administrator. For example, some responses to our calls for input suggested that

data providers make it difficult for benchmark administrators to obtain exchange data or data terminals, either by refusal to supply or through disadvantageous terms and conditions. We explored this subject in 2023 in our [Trade Data Review](#).

- 3.132 However, based on responses to our information requests, most benchmark administrators do not face difficulties in accessing input data due to other factors apart from monetary costs.

4 Market outcomes

4.1 In this chapter, we assess market outcomes in light of the features of the market identified above.

Industry standard benchmarks are a 'must have' for users

4.2 The overwhelming majority of benchmark users (around 80%) believe that certain benchmarks are a 'must have' for their business. Users have named several providers and specific benchmarks that they consider to be 'must-have' for specific asset classes, themes and geographies.

4.3 According to users, the main reasons why benchmarks have become must-haves are:

- **Brand, scale and history.** Around 40% of respondents noted these as important factors, citing the length of historical track record and reputation build-up of the benchmark administrators. The length of operation increases market acceptance of the benchmarks which further increase adoption across the industry.
- **Market standard / liquidity levels.** Around one-third of respondents reported market convention and liquidity levels of the derivative products referencing these benchmarks as a key factor in them becoming must-have. Additionally, increased trading by investors referencing these benchmarks leads to them being ingrained in investment, legal contracts and reporting processes, which further increase adoption rate over time.
- **Investors' demand.** Around 20% of respondents did not mention explicitly how these benchmarks led to be 'must-have', but investors' demand in the present climate is a key factor on why these benchmarks are seen as such.

4.4 Benchmark users claim that the cost of deviating from 'must-have' benchmark would be very high. Most asset managers reported that it would result in misalignment with their customer's needs and that they would face reputation risk, while banks and hedge funds often reported it would lead to loss of liquidity. Several users flagged it would be difficult to do business if they were to deviate from the industry standard.

4.5 As a result, benchmark users do not believe they have bargaining strength when negotiating contract terms with certain benchmark administrators, despite the fact that most providers do not have standard fees but charge bespoke contract terms to each customer. 60% of users in our sample claim that they have little or no ability to negotiate with benchmark administrators, while another 7% said it depends on the provider. A few users noted that large established providers are harder to negotiate with than new entrants. Some users explicitly mentioned that they cannot negotiate because providers know their data is a 'must have'.

4.6 Due to the must-have nature of the data, users do not seem to be price sensitive, with only around 25% of users indicating they had ever terminated, or considered terminating, a benchmark licence because of increased costs.

4.7 Based on the analysis of market features outlined above and users’ views about industry standard benchmarks being ‘must-have’, the respective providers might have market power. We refer to firms who administer industry standard benchmarks as established benchmark administrators, and to the others as challengers or new entrants.

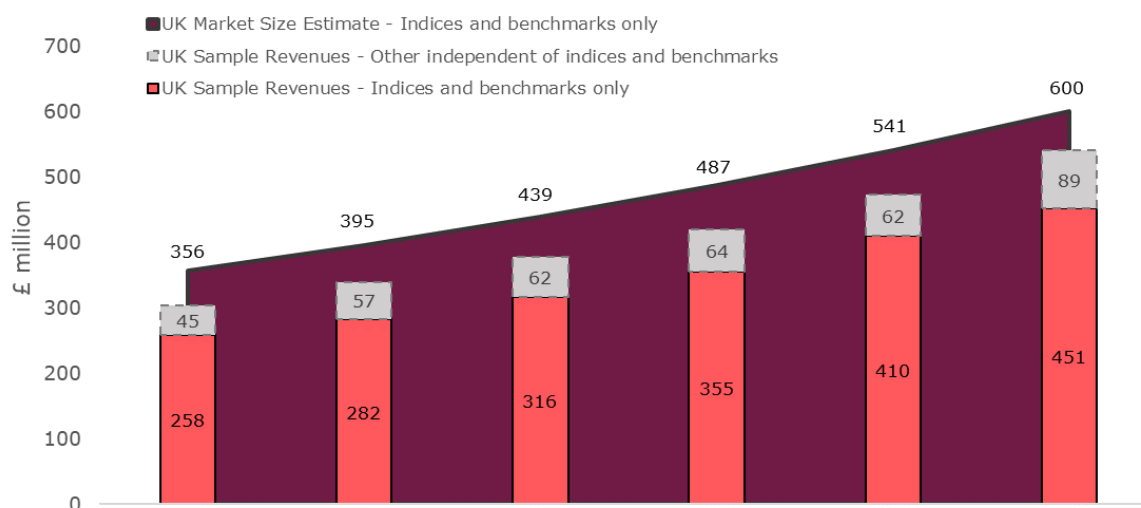
Some parts of the sector are highly concentrated

4.8 The UK index and benchmark administration market has nearly doubled in size since 2017, with revenues generated from UK-domiciled customers estimated to be around £600m in 2022. This is shown in Figure 9.

4.9 We received financial information from 14 providers, including UK and third country domiciled benchmark administrators. Revenues from this sample of firms’ sale of indices and benchmarks to UK-domiciled customers exceeded £450 million in 2022. These revenues do not include services that firms reported as being independent from the sale of the indices or benchmarks (totalling £89m in aggregate across our sample in 2022), which included the generation and distribution of other market data, research, news, IT and analytics.

4.10 On average, firms generated over 70% of sample UK revenues for the periods 2017-2022 from the equities market, with the remainder being attributable to fixed income, FX, commodities and other (such as crypto, ESG).

Figure 9: UK market revenue estimates vs sample revenues (2017-2022)



Source: Financial Analysis Annex, Section 4.

4.11 We found that the 3 largest benchmark administrators accounted for just under 70% of the UK estimated market by revenues in 2022. These firms held a broadly stable revenue share of the estimated UK total since 2017.

4.12 As explained in Chapter 2, a prominent use of benchmarks is for index-linked funds. We analysed public data from Morningstar and Bloomberg on open-ended funds

domiciled in the UK and ETFs available in the UK, with an inception date between 2000 and 2024.

- 4.13 The top 3 providers, FTSE Russell, MSCI and S&P Dow Jones, collectively account for over 75% of the value of AuM in these funds. Bloomberg has the next largest share (7%). There is a tail of smaller benchmark providers with below 5% share of AuM.
- 4.14 When considering specific asset classes, the market appears to be more concentrated. For example, the top 3 providers for equity funds account for almost 95% of the value of the AuM of equity funds in our dataset. Breaking down the equity funds market further into different geographic focus and market capitalisation, levels of concentration are even higher. The top 3 providers for fixed income and commodities funds account for 72% and 92% of AuM respectively. More details on our analysis can be found in Chapter 6 of this document.
- 4.15 There has been consolidation among benchmark administrators in the last decade. Several transactions have taken place involving benchmark administrators operating across different asset classes or within the same asset class. Examples include S&P/IHS Markit and LSEG/Refinitiv, and most recently, in February 2024, [MSCI announced its acquisition of Foxberry](#), a smaller UK-based administrator focused on index technology for investment solutions (due to being very recent, our analysis does not take into account this transaction).

Entry has been mainly in niche market segments

- 4.16 Despite the entry and expansion barriers described above, there is evidence of several new entrants in the benchmark administration market. Some of these firms (eg Solactive, Merqube) cover a variety of asset classes, while others (eg CF Benchmarks, CC Data, GX Benchmarks) specialise in specific asset classes. Based on our analysis, there have been at least 8 new entrants in the last 10 years.
- 4.17 Solactive, established in 2007, administers indices in a variety of asset classes, including equity, fixed income, commodities, emerging markets, and cryptocurrency. According to its own [press release](#), the firm has shown substantial growth in some sub-markets of specific asset classes, representing a market share of 10.8% of indexed ETFs by AuM as of April 2023.
- 4.18 Moorgate Benchmarks was established in 2017 and it used to administer benchmarks and indices on behalf of other clients. [Since being acquired by Morningstar in 2021](#), their index team and assets was integrated into Morningstar Indexes.
- 4.19 A more recent entrant aiming to challenge existing providers in multi-asset classes is Merqube, created in 2019 and receiving authorisation by the FCA to administer benchmarks as per the UK BMR in 2023. [In November 2023](#), the firm has partnered with Impact Cubed, a provider of ESG data and investment solutions, to produce bespoke ESG indices.
- 4.20 There have been several entrants over the past few years in the market for benchmark provision of digital assets, particularly cryptoassets. Two such providers, who have been authorised by the FCA to administer benchmarks, are CF Benchmarks Ltd and CC-Data Limited.

- 4.21 In the market for commodity price assessments, two recent entrants are GX Benchmarks Limited, or General Index, and Spark Commodities, both established in 2019. Intercontinental Exchange (ICE) chose one of Spark Commodities' benchmarks [for its Futures contract for LNG Freight in 2021](#).
- 4.22 Skytra, a boutique provider wholly owned by Airbus SE and established in 2019, launched several indices related to air travel, aiming to provide "risk management solutions for the aviation industry", but [has since ceased operations](#).
- 4.23 As described in Chapter 3, we are aware of 15-20 firms who have started creating and administering benchmarks to use in their own financial products, primarily investment banks but also some asset managers, which we refer to as 'self-indexers'.
- 4.24 Overall, the level of entry suggests that while barriers to entry are high, they are not insurmountable in new or niche market segments.

Switching is infrequent

- 4.25 Around 80% of respondents to our user survey stated they had not switched provider, with users stating that a lack of choice dictates who they use, and switching can involve resources for programming and testing, which is not always worth the resulting savings.
- 4.26 High-volume switching in benchmarks in the equity space has been rare. For instance, in 2012 the asset manager Vanguard [switched around US\\$500 billion](#) in AuM to competing indices. Of this, around US\$ 170billion was transferred to FTSE, while 16 funds with AuM of US\$367 billion was transferred to new benchmarks developed by the University of Chicago's Center for Research in Security Prices (CRSP), who was a comparatively small provider at the time.
- 4.27 For benchmarks used in investment products, we found that, once a product is created and launched, there are significant barriers to changing the benchmark it is linked to, due to the barriers associated with getting investors' approval, as described in Chapter 3.
- 4.28 For market segments where network effects are strong, it is unlikely that users would independently switch to a benchmark different to the market standard. In these cases, a better metric of switching would be the frequency of displacement of an industry standard benchmark.
- 4.29 For commodity price assessments, there is limited evidence of displacement of existing benchmarks. For example, [several state-owned oil companies in the Middle East](#) (in Saudi Arabia, Kuwait and Iraq) have switched from using Platts WTI to Argus Sour Crude, citing technical reasons such as the latter being more reflective of the geographical location of its exports.
- 4.30 Generally, displacement of price assessments widely used for settling physical and financial contracts are difficult, as high liquidity needs to be generated to build trust in the alternative benchmark. [One rare example of a successful displacement](#) is the increased use of DME Oman for Middle Eastern Crude Oil contracts as an alternative to Platts Dubai. It took a few high-profile and large market participants to adopt this

benchmark, which increased liquidity and incentivised other market participants to follow suit. It should be noted that there were several previous attempts by exchanges at creating new benchmarks for Middle Eastern crude oil, none of which were successful.

Profitability of established benchmark administrators is relatively high

- 4.31 Operating margins earned by established benchmark administrators were around 56% on average during the analysed period, exceeding 60% in certain instances. In contrast, those of challengers and new entrants were significantly lower and inconsistent when compared with established benchmark administrators (around 11% on average).
- 4.32 The return on capital achieved by the majority of the established firms was consistently above the cost of capital, largely outperforming challengers and new entrants. These results are consistent with a degree of market power being held by most established benchmark administrators.
- 4.33 Full details of our financial analysis and findings are set out in the [Financial Analysis Annex](#).

Quality of benchmark products meets user needs

- 4.34 Over 30% of users indicated that quality (quality of data, accuracy, reliability and timeliness of delivery) is a factor in their choice of benchmark administrator. Quality of benchmark products encompasses various aspects: the quality of the input data, accuracy of calculation, reliability and timeliness of delivery are the most frequently mentioned.
- 4.35 Users are generally happy with the quality of benchmark products. Over 70% of those who responded to our survey found benchmark products were of good quality and did not identify any issues.
- 4.36 The remaining firms reported finding some issues with either the accuracy of calculation of the index, or reporting of data relating to constituents of the index, but generally said they are not very frequent.
- 4.37 Some firms reported that errors are usually resolved and communicated by the benchmark administrator, or that they work together with the providers to improve governance. A few firms however reported that, to mitigate the impact of frequent errors, they either rely on intermediaries who check the data quality or have increased internal scrutiny of index data.
- 4.38 A few respondents expressed concerns around liability clauses, prevalent among benchmark administrators, that exclude liability for errors, effectively transferring risk to the user. Evidence we have collected at this stage is not sufficient to establish whether liability clauses are leading to poor market outcomes. As discussed in our Update Report, we are conducting work on quality of benchmark data as part of our ongoing supervision of benchmarks.

- 4.39 Overall, we did not find significant concerns among users on the quality of benchmark products in the last few years.
- 4.40 As explained in Chapter 3, many users also reported that, while quality is important, there are other factors constraining their choice, such as client requirements and liquidity. Users have also reported that a significant degradation in quality would be required for them to switch from the industry standard, indicating that due to market dynamics users are unlikely to promptly respond to changes in quality by switching.

Innovation focuses on new products to fill demand gaps

- 4.41 Innovations by firms may comprise two broad categories:
- product innovation refers to the creation of a product that is either completely new or an improvement on a previously available product; and
 - process innovation refers to the improvement in technology to reduce production costs or improve delivery.
- 4.42 Based on responses to our requests for information, benchmark administrators invest in both product and process innovation, with the relative focus varying across firms and over time.
- 4.43 Generally, across firms of all sizes, the most common innovation activity by benchmark providers is the creation of new indices (eg tracking a new market, new methodology).
- 4.44 Other forms of product innovation are also common: for example, the creation of custom/bespoke indices or the introduction of new index families/packages based on existing indices. Typically, investment banks who self-index tend focus on creating indices that are slight variations of existing indices, tailored to individual client requirements.
- 4.45 Some firms focus on developing their infrastructure, investing in improving the technology to access benchmarks data, or improving client delivery through customisation tools.
- 4.46 Based on responses to our requests for information, benchmark providers' product development strategy is primarily driven by existing and prospective client demand, investment trends and market opportunities.
- 4.47 Typically, firms may consider investment opportunities through internal idea generation or through direct client requests. Following this, they evaluate the commercial and operational value of the investment, including an assessment of risks.
- 4.48 For the development of indices covering new markets, firms may incur expenditure on human capital, technological development, market research and acquisition of the relevant data. The investment can only be recouped if the product is successful. Based on benchmark administrators' responses, the risks relating to innovation include:
- **Commercial risks:** There is a risk that the products may not be adopted by a significant client base, resulting in financial loss for the firms. One firm also

mentioned there is a “last-mover” disadvantage of being too late as a competitor’s index may be taken up by the market.

- **Operational risks:** Developing new products requires reliability of the technology platform and access to representative third-party input data. Lack of success in achieving these operational needs may lead to the firm not being able to deliver the new product. In addition, there is the possibility of delays and/or unreliability of their product offerings, thereby failing to meet client needs.

- 4.49 There is variability in the length of time it takes to develop a new index. For example, if an index is a simple variation of an existing index, it may take a few days to launch the product. However, launching a new index tracking a new market may require licensing new data and integrating it into the systems. The development of such an index may take significantly longer, from several months to over a year, therefore increasing the risk of the investment not being profitable.
- 4.50 To evaluate the commercial viability of their product development, firms gather information of the competitive landscape. Our analysis of firms’ response to our requests for information suggests that benchmark providers aim to identify gaps in the market rather than develop a new index in a market where there is already an established competitor.
- 4.51 This is in line with our findings that there are established industry standard benchmarks for specific markets, which are not easily displaced. This high level of appropriability, through a large client intake and persistently high market share, might have a positive impact on firms’ incentives to invest resources to create new products and compete for emerging markets.

5 Commercial practices and impact on end users

- 5.1 In this chapter, we assess the impact of market power of benchmark administrators through their commercial practices, and how this could be generating harm for benchmark users and their clients.

Complex, non-standard and opaque pricing

- 5.2 There is no standardised pricing methodology for benchmarks. Firms base their fees on different price drivers and generally offer bespoke discounts to clients, which are applied to base rates that are generally not visible to customers.
- 5.3 We observed some instances where benchmark administrators state that they administer specific benchmarks in accordance with article 20 (Critical benchmarks) of the UK BMR, even though they are under no obligation to do so. Under the UK BMR, licences of, and information relating to, critical benchmarks are to be provided on a fair, reasonable, transparent and non-discriminatory basis. In our results we considered commercial practices relating to these benchmarks separately.
- 5.4 Throughout this chapter, where we report figures by asset class, we include for each asset class all benchmark administrators that offer benchmarks for that asset class, so that any supplier that covers multiple asset classes would be included in each of them.

Licence types and price drivers are complex and not standard

- 5.5 As described in Chapter 2, suppliers offer many different kinds of licences. There is no standard definition of licence type and considerable variation in the nature and the number of licence types across providers. Suppliers in our sample range from offering one blanket licence to 12 different licences.
- 5.6 The variables used to determine price vary amongst providers and asset classes of benchmarks. This reflects the heterogeneity of the market, but also within the same asset class there is variation.
- 5.7 We considered 9 main price drivers: use case (such as whether the licence is for display or non-display use or to be used in a financial product); the AuM of financial products linked to the benchmark or number of contracts linked to the benchmark (as measures of use volume); the size and type of client licensing the benchmark; number of users; number of locations at the user's side; frequency of delivery of the data; access route; and degree of customisation of the benchmark.
- 5.8 The most common price drivers are AuM or number of contracts linked to the benchmark and use case, both adopted by around 80% of suppliers in our sample. Fee drivers for client type, number of individual users, size of the client, frequency of delivery of the data are also somewhat common with 30-50% of suppliers, while a

few also charge a separate fee for every geographic location of the client's offices where the data is used. Some of these factors provide information to the supplier about the value of the product to the user and its willingness to pay and some reflect the operational cost of supplying the data.

- 5.9 Around 40% of suppliers also charge extra to allow customers to access the data through an MDV, generally also charging the MDV a licence to distribute their data.
- 5.10 Suppliers who offer custom benchmarks generally charge separately for customisation, as it involves bespoke work.
- 5.11 Based on our evidence, established benchmark providers report more variables used to calculate their prices than less established providers – an average of approximately 6 (out of 9) compared to around 3.5 for smaller providers. Particularly, we find that established equity benchmark providers have on average 7.5 price drivers, compared to only 4.5 price drivers for non-established equity benchmark providers.
- 5.12 Around 75% of users who responded to our survey reported that they have to pay for the same data more than once, mentioning all the fee drivers described above. For example, many mentioned use at different locations, use cases, number of users within, different business lines, and some noted that all ancillary service providers and providers at multiple levels of the value chain (eg asset managers and managed funds) have to pay for the benchmarks as well.

"[T]his is the crux of the biggest issue asset management firms have with index licensing providers. We feel strongly that there should be a correlation between the cost of production and delivery with the overall fee we are charged for an index service. [...] This type of licensing model is unfair and not fit for purpose - despite repeating this to index providers for many years, they continue to behave and apply commercial models in ways which may not be conducive to competitive practices."

– Asset manager

- 5.13 Value pricing, ie suppliers pricing based on the value of the product to users rather than the cost of production, is common in data markets. In combination with market power, it may lead to high costs for some users.

Price lists are generally unavailable to customers

- 5.14 Most benchmark administrators (around 80% of those who license benchmarks to clients, ie excluding some self-indexers) reported that they have fee schedules they use to guide pricing. Out of these, just under half make the fee schedules available to their potential and existing clients, either by publishing them on their website or providing it on request, while the rest only use it internally. There is some variation across asset classes, with only a few equity benchmark providers making price lists available to customers.
- 5.15 Around 30% of benchmark users similarly report that there are no price lists that are made publicly available and 50% report that they are only made available upon request to benchmark providers. Some users noted that this makes it difficult for

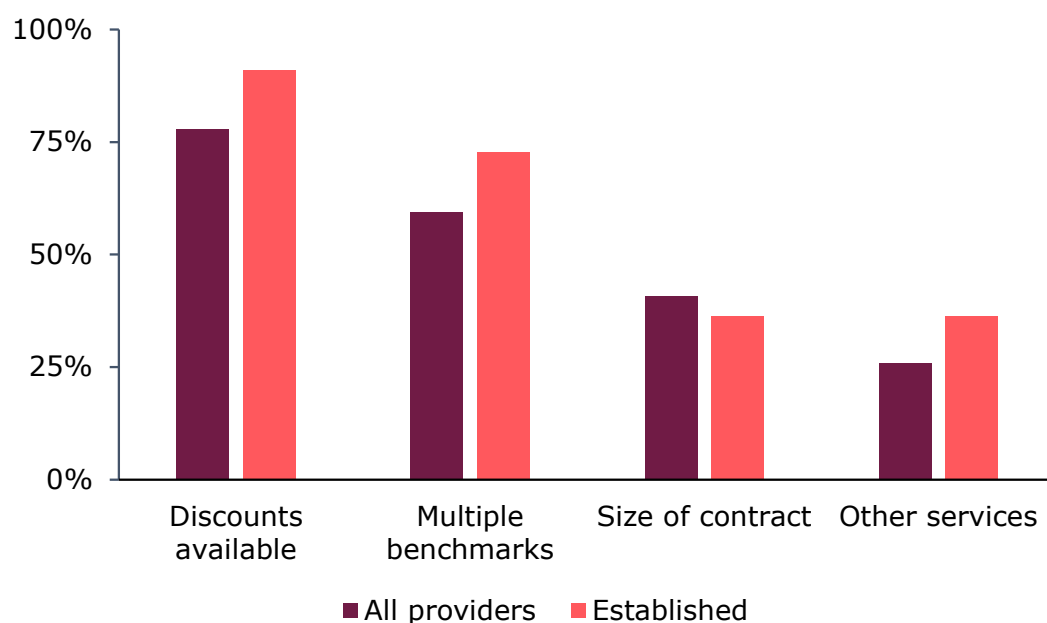
them to know what prices other users are paying for access to similar benchmarks. A few users noted that exchanges and interest rates benchmark providers tend to have more transparent pricing.

- 5.16 The lack of transparency around pricing may increase barriers to switching by making it more difficult to compare prices across providers and also worsen a user bargaining position in negotiation with providers.

Contract price is negotiated on an individual basis with bespoke discounts

- 5.17 Benchmark administrators negotiate contracts individually with customers and frequently apply discounts. In principle, this should allow users to exercise their buyer power to negotiate more favourable terms.
- 5.18 Benchmark providers may offer discounts to their benchmark licensing fee for either the licensing of multiple benchmarks, based on the size of a contract or for the purchase of other services. Our evidence indicates that the majority of benchmark providers operate discount policies, even where they publish price lists. Discounts for licensing multiple benchmarks are the most commonly offered discounts. The proportion of established benchmark providers operating discount policies is higher than for non-established providers.

Figure 10: Proportion of suppliers offering discount policies, by reason for discount and status of provider



Source: FCA analysis of responses to our qualitative survey to benchmark administrators.

- 5.19 The possibility to obtain discounts is generally beneficial to customers as in theory it allows them to negotiate a lower price.
- 5.20 However, this is not always the case: because of the lack of transparency about base rates, it would be hard for customers to assess if they are getting a good deal or if

the discount is applied to an arbitrarily high price. Consumers can associate the pre-discount price with the true value of the product, even if they have no information on whether that is accurate.

- 5.21 As reported in Chapter 4, most benchmark users feel they have no or little ability to negotiate with benchmark providers. Of the 40% who said there is room for negotiation with at least some providers, a few referred to the availability of volume discounts. Some clarified that established providers are harder to negotiate with compared to entrants. A few users have expressed concerns with benchmark administrators' discount policies, for example noting that suppliers might quote unrealistically high list prices and then apply discounts as part of a negotiation strategy, potentially increasing fees after an initial period.
- 5.22 Individual negotiation also provides suppliers with the opportunity to get a better understanding of a users' willingness to pay and, potentially, adapt their behaviour accordingly.
- 5.23 While generally users find they have limited bargaining power, many have provided at least one example of successfully pushing back on contract price increases by providers (around 20% of users) or of successfully managing to secure a better deal after procurement reviews or negotiation (60%). The examples provided include different bespoke discounts or amendments to terms and conditions being granted, which vary across providers but also where they refer to the same provider. A few users mentioned they were able to push back on an increase in contract price by agreeing to extend their contract term to multiple years. Others reported successfully convincing providers to provide flexibility or make an exception for them on a newly introduced fee driver, eg reducing the number of location charges, undoing a change in use case that led to a fee increase. Some users said they negotiated very high year-on-year or renewal fee increases down slightly – some of these increases were made up the next year.
- 5.24 The remaining users either did not attempt to negotiate better terms, or were unsuccessful: around 50% of users reported having tried to push back on a fee increase in the past but failing to do so. Some users reported that providers start renewal negotiations close to the contract expiration date and threaten to interrupt service; a few users mentioned providers have a 'take it or leave it' approach.
- 5.25 Others reported that some providers (sometimes the same who granted a range of the discounts listed above) pushed back on their attempts to negotiate by saying that their terms are standard, and in a few cases quoting regulatory obligations to offer standard and transparent pricing and being subject to audits.

Confidentiality clauses

- 5.26 Around 70% of providers have confidentiality clauses requiring clients not to disclose any information about the contract. Of those who do not have this requirement, a few have indicated that this is because their fees are published.
- 5.27 Based on our sample of suppliers, price reporting agencies are less likely to use confidentiality clauses compared to other benchmark administrators, with only half of the ones in our sample imposing such clauses.

- 5.28 These clauses limit the ability of users to compare product offerings within them and is a barrier to the effectiveness of price comparison tools that are common in other markets. We are aware that some consultancy firms have started providing services for the index market, attempting to fill that gap.
- 5.29 The combination of complexity and lack of transparency may increase barriers to switching further: the majority of users reported that they find it difficult to compare offerings across benchmark providers.
- 5.30 As established benchmark administrators' commercial practices are generally more complex compared to challengers, this may reinforce their market power.

Example of pricing practices: analysis of fees charged for use of benchmarks in funds

- 5.31 We asked benchmark administrators to provide information about the fees that they charge for use of their products in passive and active investment funds. Benchmark administrators typically charge either basis points on the fund AuM or a proportion of the fund management fee / total expense ratio (TER). Our analysis of the sample of fee data we have received suggests that benchmark administrators do not prefer one of these fee models over another.
- 5.32 In some instances, our sample of fee models indicates that benchmark administrators may also impose price floors and price caps, for example by charging a proportion of the management fee but setting floors and caps that are calculated using basis points on AuM. Our qualitative responses to our RFI indicated that discounts are frequently applied by benchmark administrators, and we found some evidence of administrators applying discounts to contracts because of negotiations.
- 5.33 Overall, our analysis of fee schedules across benchmark administrators indicates that the fee schedules can be complex and are not easily comparable to one another.

Bundling

- 5.34 Bundling refers to the way products are packaged and sold to users. For pure bundling, several products are jointly sold in fixed proportions. In the case of mixed bundling, products may be sold separately or as a package.
- 5.35 As set out in Chapter 2, bundling practices vary across benchmark administrators. Some firms only offer bundles, some firms only offer their products individually, while most firms follow a mixed approach.
- 5.36 Bundling is a common commercial practice across industries and may provide benefits to consumers: being able to buy related products together lowers search efforts and potentially lower prices than if the products were purchased separately. However, bundling practices may also have an adverse effect on competition through increasing barriers to switching, entry or expansion.

Potential benefits of bundling practices

- 5.37 Bundling products together may yield benefits for some users. For instance, if there is a high degree of complementarity between benchmarks offered within a bundle (ie the products are generally used together), it will save time and effort for users in

comparison to manually selecting many products they might require. Similarly, packaging multiple indices may lead to cost savings for some suppliers, particularly when the bundled indices are calculated based on a similar methodology. Separating indices from these related families may be operationally risky, leading to increased costs for suppliers. In isolated cases, firms mentioned that they do not have the technological capability of distributing only parts of their dataset.

- 5.38 As described in the previous section, most benchmark administrators offer discounts to users who buy multiple benchmarks, and some users who have stated they are able to negotiate contract terms with providers have mentioned they can sometimes obtain volume discounts.
- 5.39 Purchasing bundles of different indices from a few suppliers may also be beneficial for users as it may save them time and effort in setting up contractual relationships with multiple suppliers. When asked about whether they prefer to source multiple benchmarks from the same provider, around 60% of the users who responded to this question said they prefer to buy from fewer suppliers. This is primarily due to the efficiency in administration and oversight of suppliers; consistency of infrastructure and systems integration; efficiency in procurement (setting up contracts), and availability on specific MDVs. Some users also mentioned that as suppliers sell packages it is cost efficient to use the packages as much as possible.

Potential harms of bundling practices

- 5.40 Packaging different indices together only in bundles may be harmful for users as well as competing firms. For instance, users may be required to pay for more products than they require or bundling practices by large and established providers may create barriers to entry or expansion for new entrants in new emerging market niches.
- 5.41 When users purchase a family of indices, the package may contain more products than required by them, possibly paying more than if the products were offered separately. Based on the responses to our user survey, some users are content these bundles meet their demands; however, around 60% of respondents claim this practice leads them to purchase benchmarks within a bundle they do not require. Of the users who were offered a bundle containing indices they do not require, a few have been successful at negotiating a lower price for the individual product they require rather than purchasing the whole bundle. However, other users have said that obtaining just the products they require was not an option.
- 5.42 It should be noted that where the bundles contain must-have benchmarks with many other benchmarks with comparatively lower demand, offering these products separately may not reduce costs for users. Due to the high price inelasticity of the must-have benchmarks, suppliers may have the ability and incentive to charge prices for each individual must-have benchmark similar to the price of the bundle, and not lose sales substantively.
- 5.43 Bundling can also increase barriers to switching, reducing competitive constraints faced by large and established benchmark administrators. For instance, suppose a user purchases a family of benchmarks from one provider, and an alternative provider introduces a new and potentially cheaper index in a specific market. If the user is willing to switch, they will still need to purchase the same index from the current provider for the other indices within the existing bundle. This will increase

total costs for the user, effectively deterring them from switching. This barrier to switching resulting from bundling practices has been mentioned explicitly by one user. However, in our user survey, around 80% of respondents stated they had not interrupted or decided against purchasing a benchmark because a suitable alternative was provided as part of an existing bundle.

- 5.44 These barriers to switching may be exploited by established firms to strategically hinder entry and expansion of new entrants. Suppliers may prevent new or potential competitors from gaining customers in specific segments of the market by tying or bundling their must-have products with products whose provision may be more susceptible to challenge by competitors. For instance, if a new or potential entrant aims to capture a market gap by introducing a new product in a niche or emerging market, then an established firm may offer a competing product only alongside its must-have benchmarks in existing markets. The new and niche product may be sold at a loss with the aim of forcing the new entrants to exit the market, potentially enabling market power in the niche market for the established firm in the future.
- 5.45 Based on the responses to our requests for information from a wide range of firms, we have not seen substantive evidence which suggests these conducts are prevalent in the market.

Termination clauses

- 5.46 A benchmark licence typically confers a right to use property of the licensor but not a transfer of ownership of that property to the licensee. Therefore, benchmark licences may include provisions requiring a user to cease use of data they have previously received on termination of the licence. Additionally, the licence may require such data to be deleted from systems of the user if the licence is terminated. The clauses can be an unconditional requirement to delete or cease use of data or they may be conditional on the user having the right to continue use or retain data solely for legal and regulatory purposes. In some cases, there are no restrictions on use of historical data. Where data is required to be deleted under the licence, the parties may negotiate a fee for the retention and use of the data separately to the original licence.
- 5.47 Based on responses to requests for information and publicly available data on the policies of a sample of suppliers, we found that around 65% of suppliers had a requirement to delete or cease use of data on termination, with the majority of these providing limited exceptions for legal and regulatory purposes. Around one-third of suppliers had no restrictions on use post-termination. Finally, in some isolated cases, suppliers had policies which varied with different products or licences.
- 5.48 The majority of non-established providers in our sample had no restrictions related to the usage of historical data post-termination. In contrast, most established providers had some form of restriction in usage of historical data post-termination of contract.
- 5.49 We asked users whether they were subject to a requirement to delete historic data on termination in their licence contracts and to indicate the cost of retaining data as a proportion of their terminated licence fee. Around 75% of benchmark users in our sample claim that these clauses are present in their licence contracts. We received

examples of cost of retaining historical data from 3 users. The range of example fees provided as a proportion of the previous licence fee are an ongoing charge of between 50% to 100% of previous licence fee plus inflationary increases.

- 5.50 The savings users would need to achieve to justify switching provider need to exceed the cost of switching. Termination clauses, specifically the requirement to purge historical data described above, directly increase the cost of switching. Users require historical data to ensure continued client reporting and comparison over time. Around 75% of users have reported that the requirement to delete historical data is a barrier to switching.

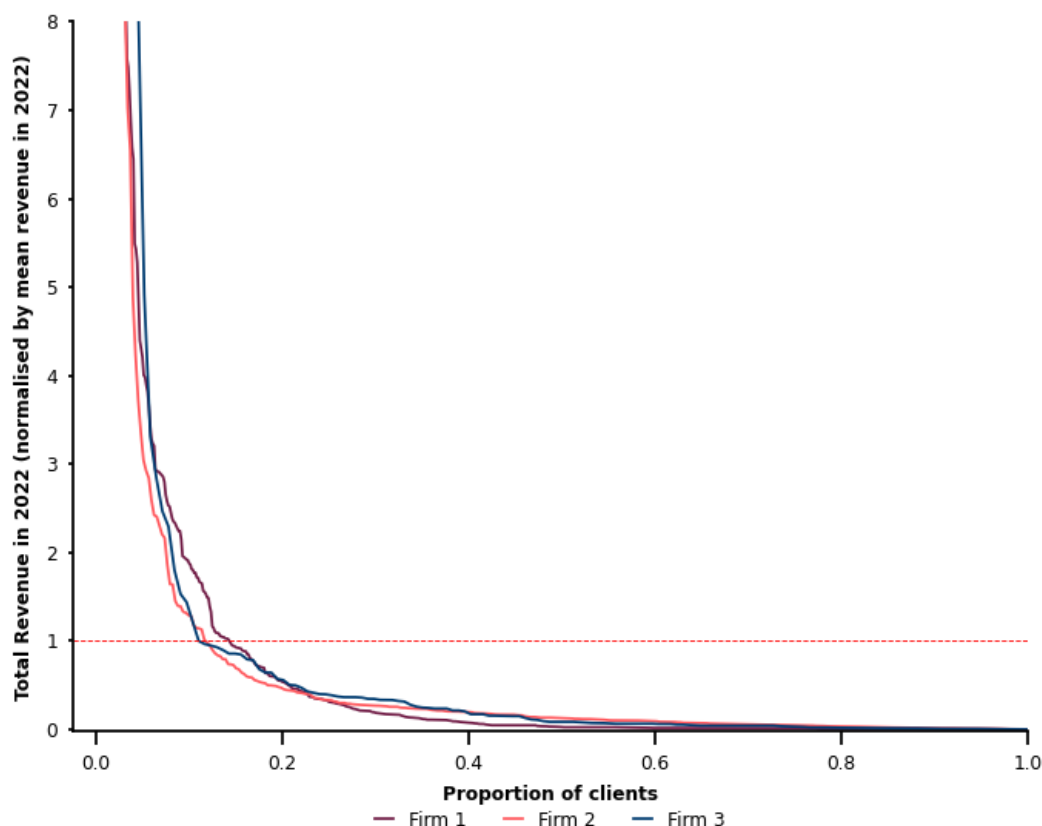
User expenditure on Benchmarks

- 5.51 In this section, we report the findings from our analysis of contract-level data provided by a sample of benchmark administrators. Allowing us to consider the distribution in customers' benchmark expenditure and trends over time. We report expenditure aggregated at the customer level, as a given customer might have more than one contract in place at any point in time.

Expenditure varies across customers

- 5.52 Figure 11 below shows the distribution of expenditure across clients at 3 benchmark providers. As we would expect, there is a long tail of customers who pay relatively low amounts across each provider. There is significant variation in expenditure across customers with the highest-spending customer in 2022 paying many times more than the mean expenditure per customer at the same provider (Figure 23, capped at 8 for readability). There is variation across benchmark providers in the distribution of customers who pay prices above the mean expenditure per customer. However, across the providers, between 85% and 90% of customers spend below the mean expenditure per customer. These findings are consistent both across benchmark providers, and over time.

Figure 11: Breakdown of benchmark customers' expenditure across a subset of established benchmark providers (2022)



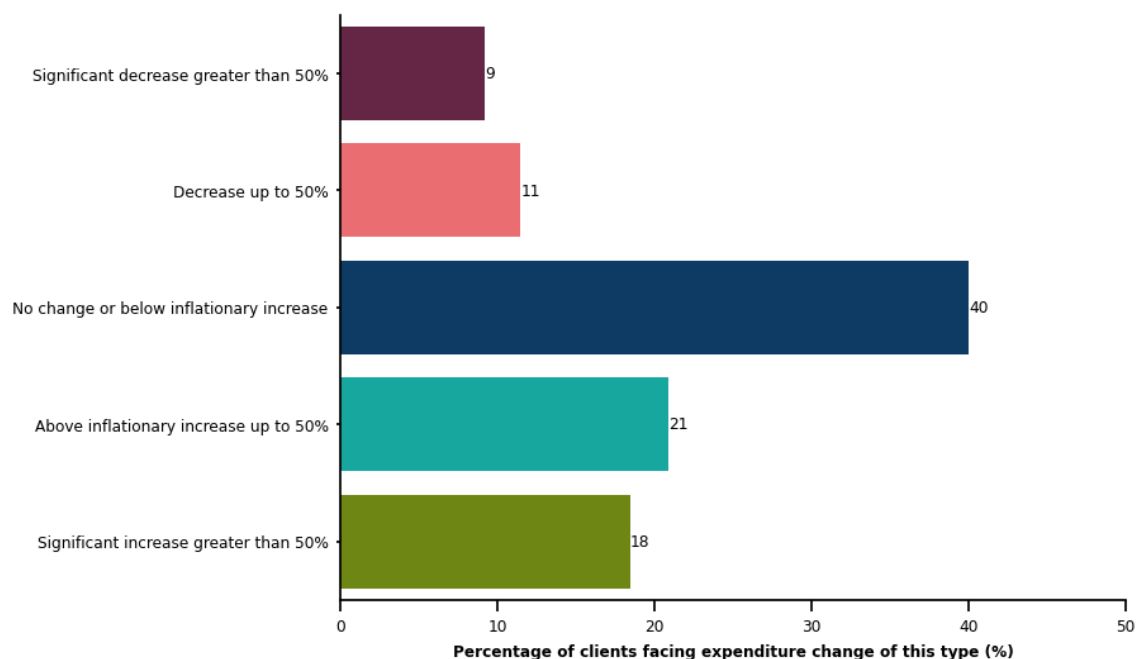
Source: FCA analysis of benchmarks transaction data. The y axis on this graph is capped at 8 for readability.

- 5.53 These outcomes are consistent with the application of the commercial practices described in the previous section, with fees being determined based on several fee drivers, generally correlated with user characteristics and usage of the products. This suggests that benchmark administrators may be able to apply value pricing through their commercial practices to some extent.
- 5.54 These findings are consistent with those of similar pieces of analysis conducted recently. For example, analysis carried out by consulting firm [Substantive Research](#) found considerable variation in the prices paid by different benchmark users for similar products and use cases.

Expenditure per customer has increased over time for many users

- 5.55 Across the providers in our sample, around 20% of customers had a decrease in expenditure between 2019 and 2022 and 40% had no change or a below inflationary change. This is based on a cumulative inflation rate of 12.9% across the period, which is calculated using the Consumer Price Index. Around 39% of benchmark customers saw total expenditure increase more than the inflation rate for the period. For 18% of customers the increase was above 50%.

Figure 12: Change in total expenditure per customer



Source: FCA analysis of benchmarks transaction data. This data includes only customers who purchased services from a given provider across the whole period. Note: the cumulative inflation rate across the period was 12.9%. This is calculated using the Consumer Price Index.

- 5.56 The distribution of total expenditure growth also varies across benchmark administrators in our sample. The proportion of clients experiencing an increase in total expenditure above the rate of inflation for the period varied between 18% and 100% across the different providers in our sample.
- 5.57 We also asked benchmark users about the cost of benchmarks. Many firms mentioned that prices have been increasing significantly, for example as a result of providers adding new fee drivers or licence types, or upon renewal of contracts. Some users mentioned specific price increases in the range of 10%-40%.

Impact of benchmark costs on users and investors

- 5.58 High benchmark costs resulting from commercial practices of suppliers might affect benchmark users and, in turn, end investors, through multiple channels. Benchmark users might incur higher costs and either increase the price of their own services or absorb the cost, or a mix of both. Even if they do not increase their own prices, they might use capital that might have been employed elsewhere in the business, for example to improve their product offering. Alternatively, benchmark users may look for ways to reduce their usage of benchmark products to contain costs, with a resulting impact on their business decisions. Benchmark costs might also be a barrier to entry in downstream markets, or to development of specific products, potentially distorting competition.
- 5.59 The impact of benchmark costs on users and their customers may vary, depending on how significant benchmark costs are compared to users' costs and revenue.

- 5.60 We asked users what proportion of revenue derived from products that rely on benchmarks or indices will be used to pay for access to benchmarks and indices. The majority (70%) of respondents suggested that benchmark costs are reflected within firms' operational cost base and absorbed within their P&L and not passed onto clients or end investors directly through OCF/TER or AMC charges, or directly considered in pricing decisions.
- 5.61 The exceptions to this were respondents who identified passing on benchmark costs via the variable fees for tracker funds or ETFs, or via explicit management or expense charges. Some respondents provided estimates of their total revenue and benchmark expenses, with half of them indicating that benchmark costs account for less than 1% of revenue derived from products using benchmarks. The remaining respondents reported higher costs, with few between 10% and 16% of management revenue or expense ratios.
- 5.62 The limited quantitative data we received from users supports the wider feedback received, indicating that for the large majority of users, benchmarks costs will be a very small proportion of their total cost base.
- 5.63 We understand that benchmark costs for funds typically amount to 10 – 20% of TER or management fees. Benchmark administrator fees for a small sample of funds (which are charged based on fund TER or management fees) indicate that benchmark fees account for up to 20% of the total expense ratios paid by end investors. In isolated cases, qualitative evidence from benchmark users indicated that that 10-20% of revenues made from products will be fees paid to the benchmark administrator. This is consistent with recent empirical findings in the [United States](#), which have found that index licensing fees account for between 20-30% of expense ratios.
- 5.64 Benchmark users reported taking various courses of action when they are faced with an increase in costs by benchmark providers.
- 5.65 As noted in Chapter 4, 84% of benchmark users reported they have not terminated a licence due to high costs, switching provider is infrequent and, as reported in this section, negotiation is possible but unlikely to be very impactful due to low bargaining power. Over 70% of users also reported that they have not reduced their consumption of benchmark products as a result of high costs in the last 5 years, consistent with the must-have nature of benchmarks data. This indicates that most benchmark users will generally incur increases in benchmark costs when they are faced with them.
- 5.66 To understand the extent to which users might pass on high costs of benchmarks to their customers through higher pricing, we asked users how the costs of benchmarks affect the prices that they charge for their own products and services. The majority of respondents (2 out of 3) stated that benchmark costs do not affect their product pricing directly. Some of these noted that while it has not so far affected pricing, it is a factor they consider and it might if the costs rise further. Others said that they cannot pass on the cost.
- 5.67 Of those that stated that benchmarks cost does affect pricing (1 in 3 users), some highlighted that while in many cases benchmark costs will not have a direct link to client cost, given they form part of the overall cost base, they will be reflected in the

overall product or service charge. In other cases, benchmark fees can be reflected directly in product charges.

- 5.68 Apart from pricing, benchmark costs can affect users' business decisions in other ways. Close to 30% of respondents to our survey reported that they have reduced their usage of benchmarks and indices or changed their purchasing behaviour as a result of high costs. A further 10% had not changed behaviour but have considered doing so.
- 5.69 To contain benchmark costs, users told us they changed their behaviour in different ways. Some have adapted their internal processes, for example restricting usage of benchmarks to only certain locations or number of users to avoid charges. Others have rationalised their procurement strategy, for example consolidating the number of providers they buy from, encouraging staff to use indices included in already available index families or using MDVs that do not trigger extra charges. Other users have adapted their product offering, eg withdrawing products or declining transactions as they would not be profitable due to benchmark costs.
- 5.70 We also specifically asked users if they had terminated the provision of a product or service that relies on benchmarks, or a service related to benchmarks, or decided against launching one, due to high licence fees, or considered doing so. The majority of respondents stated they had not changed their product offer in response to benchmark licence fees. Some of these users said they would consider doing so if the cost of benchmarks increased significantly.
- 5.71 The users who suggested their product offer had changed in response to licence costs noted reducing their product offering (such as closing ETFs due to insufficient demand to break-even), or excluding certain data, eg on index constituents, from their client reporting.

6 Analysis of public data on UK funds

6.1 In this chapter, we report our findings from the analysis of public data on UK funds. We refer to these results throughout this document.

Methodology

6.2 We analysed public data on UK funds from Morningstar and Bloomberg. The scope of this analysis is open-ended funds domiciled in the UK, and ETFs available in the UK, with an inception date between 2000 and 2024. The dataset covers data on 9,303 funds from 76 benchmark providers.

6.3 The data available from Morningstar was consolidated with Bloomberg fund data to improve completeness of data fields. To enable us to calculate the market share of each benchmark provider, the primary prospectus benchmark name for each fund was used to extract the benchmark provider name. The market share for each benchmark provider was calculated, and then weighted by the size of the funds using a benchmark from that provider.

Descriptive statistics

6.4 The size of the funds in the dataset ranges up to £63bn. The median fund in the dataset has a value of £243m.

6.5 Table 2 provides detail on the asset class focus of the funds in the dataset. This data is available for a total of 9,302 funds.

Table 2: Total number of funds in our dataset by asset class focus

Asset class	Number of funds
Alternative	69
Commodity	128
Convertibles	13
Equity	5,825
Fixed Income	1,844
Mixed Allocation	1,006
Money Market	63
Real Estate	67

Source: FCA analysis of Morningstar and Bloomberg data.

6.6 Table 3 provides detail on the type of management approach of the funds in the dataset. This data is available for a total of 2,614 funds.

Table 3: Total number of funds in our dataset by management approach

Management approach	Number of funds
Active management	1,515
Passive management	1,099

Source: FCA analysis of Morningstar and Bloomberg data.

- 6.7 Table 4 provides detail on the geographic focus of the funds in the dataset. This data is available for a total of 9,220 funds.

Table 4: Total number of funds in our dataset by geographic focus

Geographic focus	Number of funds
UK	2,367
USA	858
Global	3,797
Other	2,198

Source: FCA analysis of Morningstar and Bloomberg data.

- 6.8 Table 5 provides detail on the market capitalisation (cap) focus of the funds in the dataset. This data is available for a total of 3,708 funds.

Table 5: Total number of funds in our dataset by market cap focus

Market cap focus	Number of funds
Small-cap	334
Mid-cap	132
Large-cap	2,467
Multi-cap	177
Flex-cap	399
Broad market	199

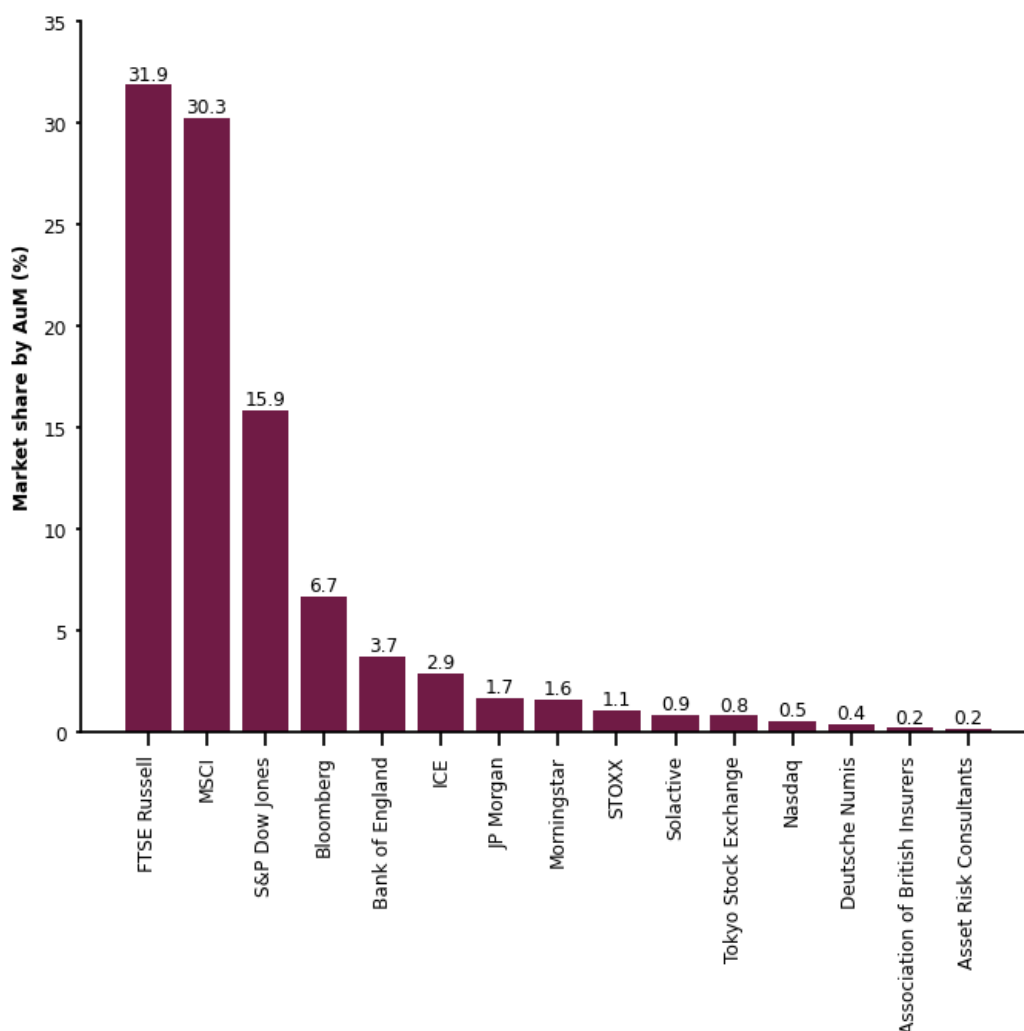
Source: FCA analysis of Morningstar and Bloomberg data.

Market shares

- 6.9 Figure 13 below shows the share of AuM in UK funds linked to the top 15 benchmark administrators in our dataset. The top 2 providers, FTSE Russell and MSCI, collectively account for over 60% of the value of AuM in these funds. Combined with S&P Dow Jones (S&P), the top 3 providers have over 75% of market share.

Bloomberg has the next largest share (7%). There is a tail of smaller benchmark providers with below 5% market share.

Figure 13: Market share of the top 15 UK Benchmark Administrators in UK funds and ETFs (AuM)



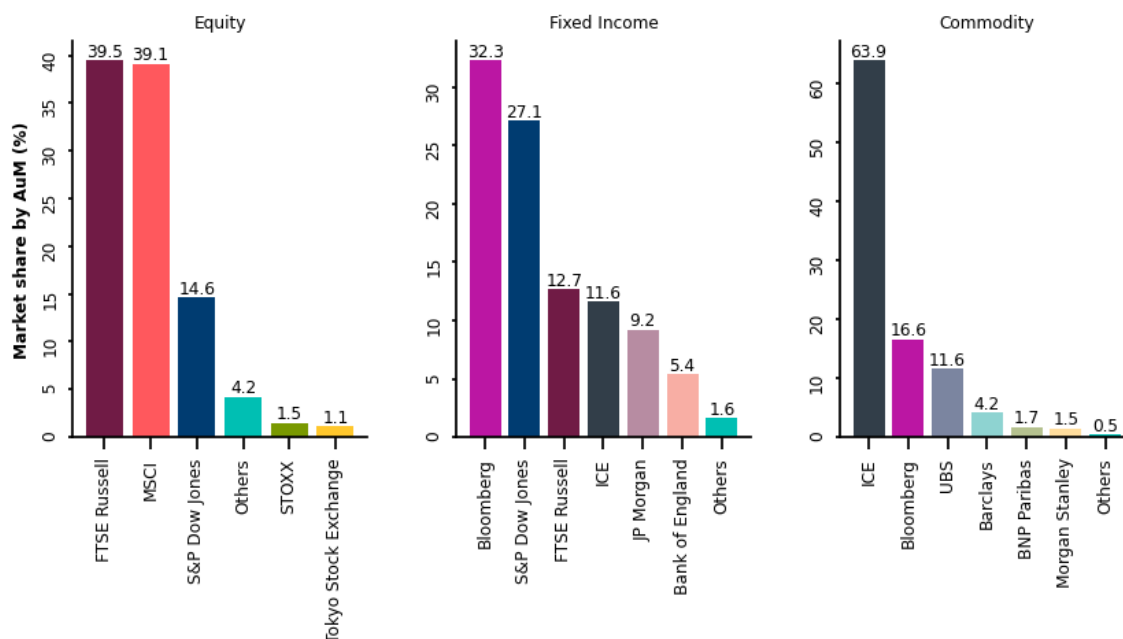
Source: FCA analysis of Morningstar and Bloomberg data.

- 6.10 This concentration has been persistent over time. We examined the market share distribution in 2010 by considering funds in our sample with an inception date between 2000 and 2010. FTSE Russell was the largest benchmark provider in terms of market share (31%). MSCI held a similar share of the market at 27%, and S&P had a 15% share. The remainder of the benchmark providers in the sample each accounted for less than 5% of market share, except Bloomberg.
- 6.11 Only 109 funds in our dataset have an inception date in 2000, and for those funds we find similar shares as shown in Figure 13 above, which is indicative that the same firms may have held large shares of the market for over two decades.
- 6.12 Figure 14 below considers market shares of benchmark providers by asset class. When considering specific asset classes, the market appears to be more

concentrated. For example, the top 3 providers for equity funds account for almost 95% of the value of the AuM of equity funds in our dataset. Likewise, the top 3 providers for fixed income and commodities funds account for 72% and 92% of AuM respectively.

- 6.13 From Figure 14, at least 2 of the 3 top benchmark providers by AuM (FTSE Russell, MSCI, S&P) are also the top providers for equity and fixed income funds. For commodities, challengers account for the majority of the market share.

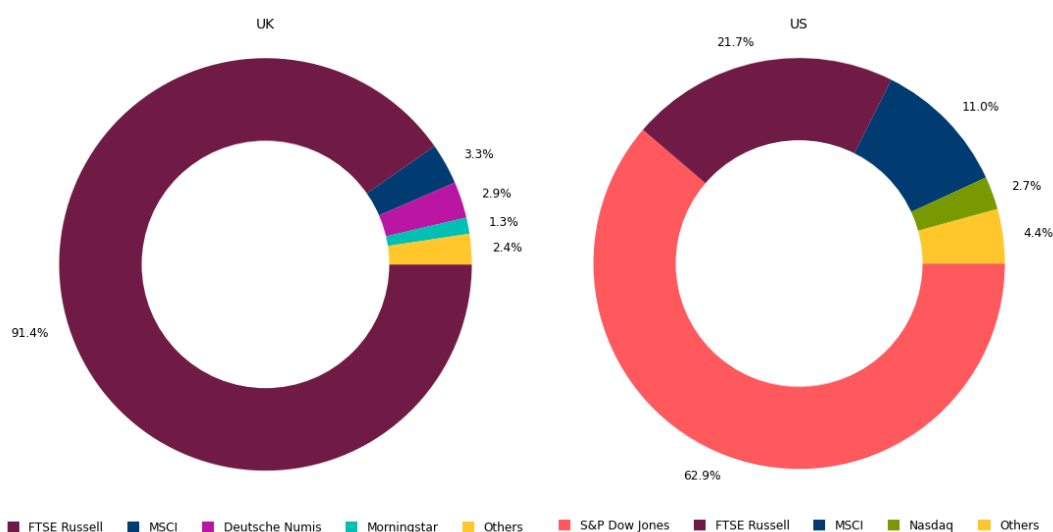
Figure 14: Market share of the top UK Benchmark Administrators in UK funds and ETFs, by asset class (AuM)



Source: FCA analysis of Morningstar and Bloomberg data.

- 6.14 We estimated market shares of benchmark administrators for equity funds, by geographic focus. When considering specific geographic focuses within an asset class such as equities, the market also appears to be more concentrated. For example, 91% of AuM in UK equity funds in our sample are linked to FTSE Russell benchmarks, with the remainder split between MSCI, Deutsche Numis and other providers. On the other hand, the majority (63%) of US equity funds in our sample are linked to S&P benchmarks, with a further 33% of market share accounted for by FTSE Russell and MSCI. For global equity funds, MSCI has a 78% market share, with a further 17% accounted for by FTSE Russell and S&P Dow Jones.

Figure 15: Market share of benchmark providers in UK equity funds and ETFs, by geographic focus (AuM)



Source: FCA analysis of Morningstar and Bloomberg data.

- 6.15 We also considered how market shares differ when calculated by the number of funds, instead of the value of AuM of funds. For example, Table 6 below outlines the market share of equity funds with a UK geographic focus when calculated by the value of AuM of funds, and by the number of funds. This results in similar findings for the top benchmark providers. However, the market appears to be slightly less concentrated, with a higher share for providers other than the top provider.

Table 6: Market share of UK Benchmark Administrators in equity funds and ETFs with a UK geographic focus

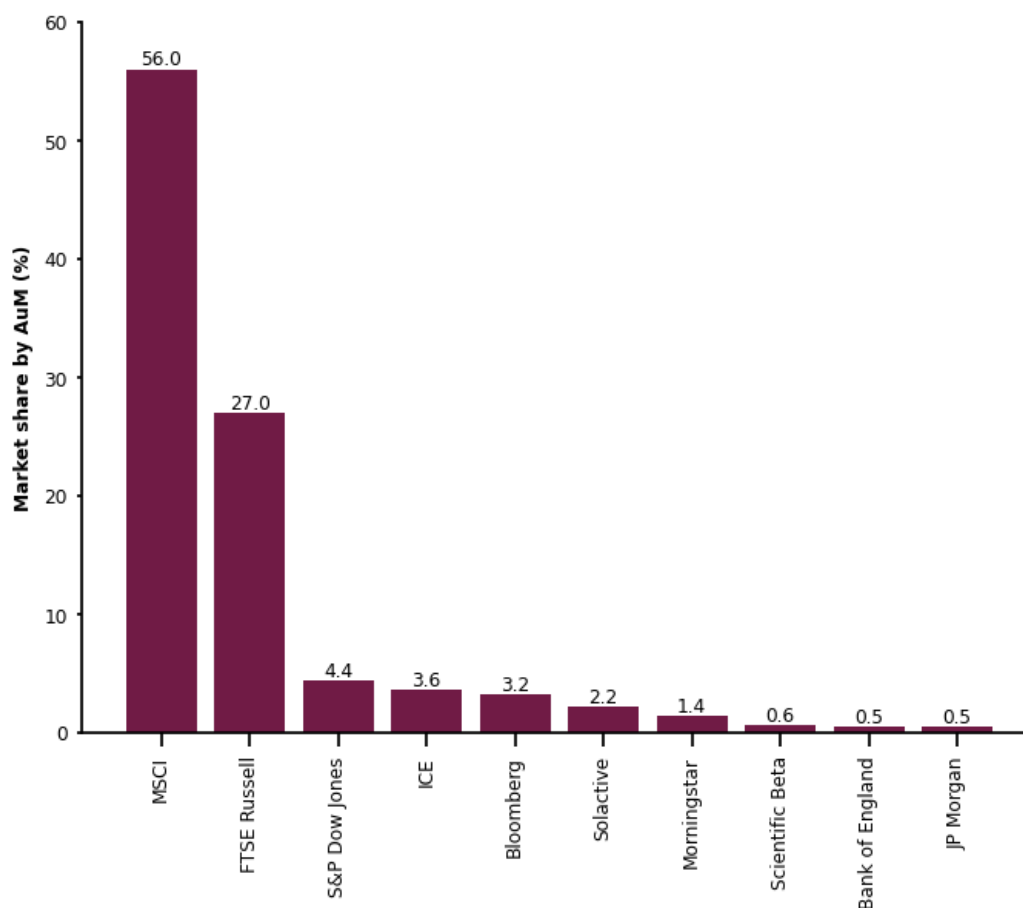
Benchmark administrator	Market share by AuM (%)	Market share by number of funds (%)
FTSE Russell	91	78
MSCI	3	8
Deutsche Numis	3	8
Morningstar	1	2
Others	2	4

Source: FCA analysis of Morningstar and Bloomberg data. Note that, for presentation purposes, we rounded figure labels to the closest integer.

- 6.16 The market share of FTSE Russell in equity funds with a UK geographic focus is driven by its relative share (94%) in the large-cap equity funds space. Meanwhile, in the UK small-cap equity funds market, Deutsche Numis has the majority of market share (75%) and FTSE Russell has the next largest share (24%).

6.17 Lastly, Figure 16 below considers the market share distribution of benchmark administrators for ESG funds. The providers with the highest shares are the same as the top benchmark providers in the overall sample of funds. However, MSCI has the largest share and accounts for the majority of AuM of ESG funds. FTSE Russell and MSCI jointly account for 83% of the AuM. This is followed by a tail of benchmark providers with market shares of less than 5%.

Figure 16: Market share of the top 10 UK Benchmark Administrators in UK ESG funds and ETFs (AuM)

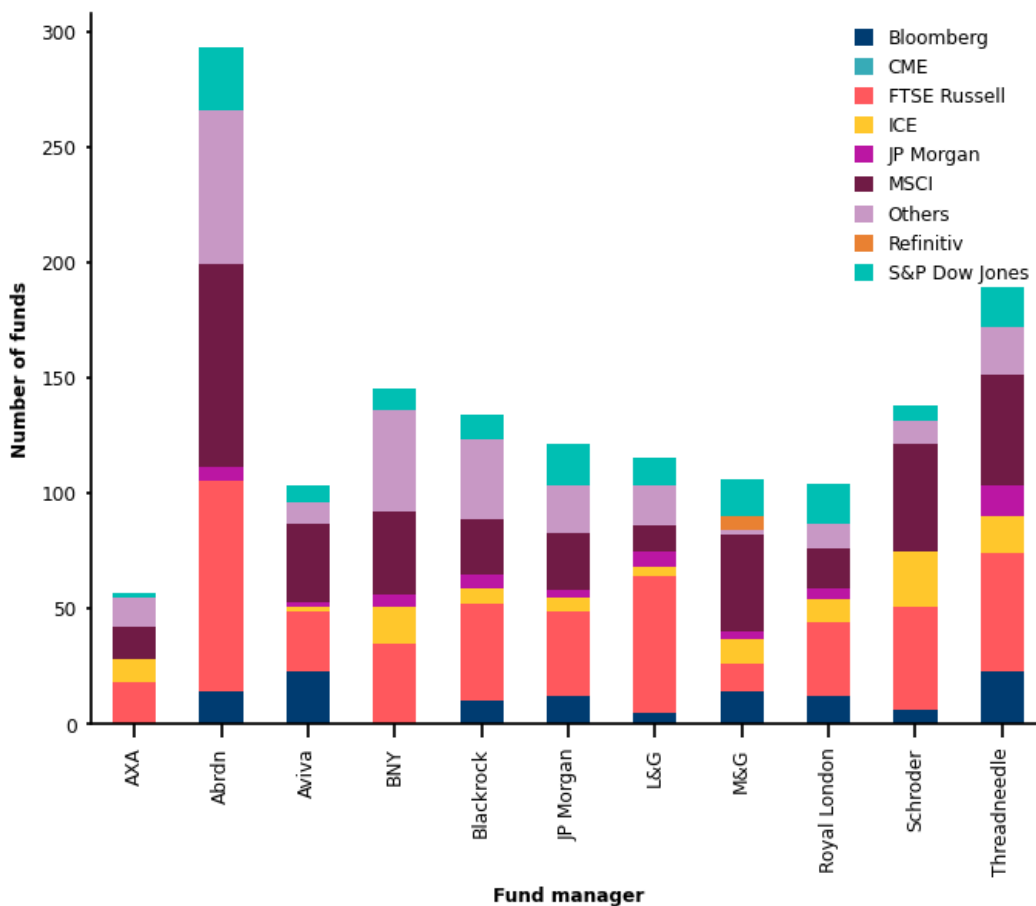


Source: FCA analysis of Morningstar and Bloomberg data.

Multi-sourcing

6.18 Figure 17 below details the fund managers that are most prevalent in our sample of funds. The most popular fund managers often source from various benchmark administrators – for example, most of the largest asset managers (including Vanguard, Schroders, Royal London, Legal & General and BlackRock) offer funds linked to FTSE, MSCI and S&P and Bloomberg. Specifically, multihoming is more prevalent in the equities and fixed income asset classes.

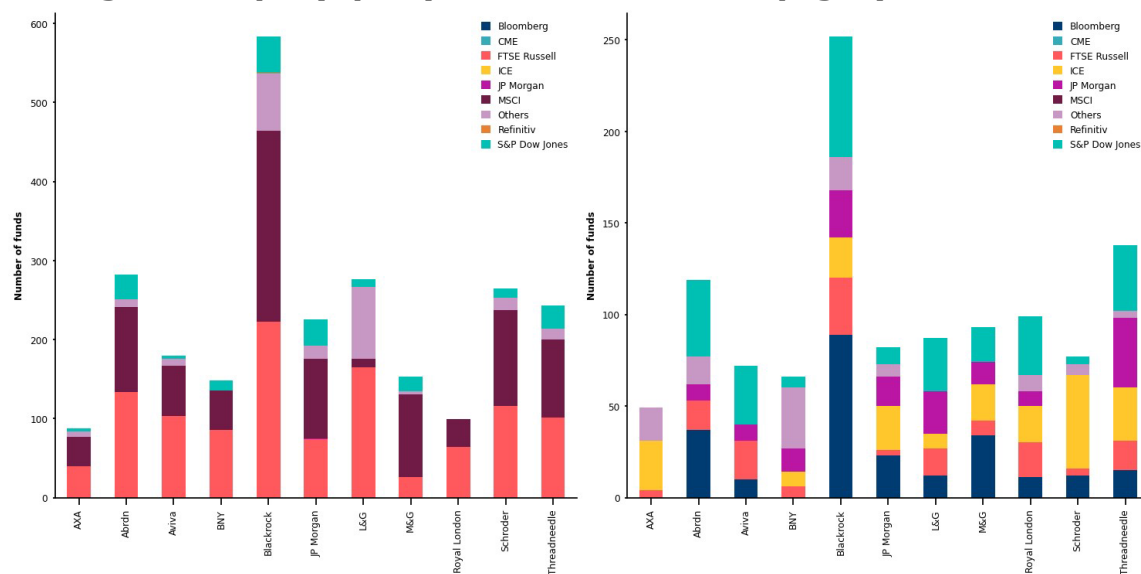
Figure 17: Breakdown of benchmarks used by large fund managers



Source: FCA analysis of Morningstar and Bloomberg data.

6.19 This is consistent with what benchmark users reported to us, as asset managers specifically are required to meet the different customer requirements across asset classes and geography.

Figure 18: Breakdown of benchmarks used by large fund managers – equity (left) and fixed income (right)



Source: FCA analysis of Morningstar and Bloomberg data.

7 Glossary of terms used in this document

Term	Definition
Asset class	A group of financial assets which share similar characteristics and are subject to similar laws and regulatory requirements. Asset classes include equities, fixed income and derivatives, among others.
Basis risk	Basis risk is the risk that the relationship between two financial variables will change, particularly between two sorts of interest rate or between a hedge and the position it ostensibly hedges.
Benchmark	An index used within the scope of the Benchmarks Regulation, ie where: <ul style="list-style-type: none"> • it is used to determine the amount payable under a financial instrument or financial contract, or the value of a financial instrument • it is used to measure the performance of an investment fund for the purpose of: <ul style="list-style-type: none"> ○ tracking the return of the index ○ defining the asset allocation of a portfolio ○ computing the performance fees of a portfolio
Consolidated tape / feed	A continuous electronic live data stream providing price and volume data of bids and offers, and/or executed trades in financial instruments taking place on trading venues and bilaterally.
Credit ratings	Opinion on the creditworthiness of an issuer or security, issued by Credit Rating Agencies (CRAs).
Credit ratings data	Dataset including credit ratings and related information, that may be supplied by Credit Rating Agencies (CRAs) (or their affiliates) or through market data vendors (MDVs).
Double marginalisation	A phenomenon where each of two successive firms in the value chain, in an attempt to maximise their own profits, charges a price that is higher than their marginal costs. The final price to the consumer may be higher than it would have been if the two firms were vertically integrated. For further details, see, for example Mukherjee (2015) .
Exchange-traded fund	A fund of which at least one unit or share class is traded throughout the day on at least one trading venue and with at least one market maker which takes action to ensure that the price of its units or shares on the trading venue does not vary significantly from its net asset value and, where applicable, from its indicative net asset value.
Expense ratio	The expense ratio of a fund is how much end investors pay to purchase a fund on an annual basis. It is expressed as a

Term	Definition
	percentage and calculated by dividing the total cost of operating a fund by the total assets held in that fund.
Index	The BMR defines an index as a figure that is published or made publicly available and is regularly determined, either entirely or partially by applying a formula or other method of calculation, or by an assessment; and on the basis of the value of one or more underlying assets or prices (including estimated prices, actual or estimated interest rates, quotes and committed quotes, or other values or surveys).
Market data vendor (MDV)	An entity that provides desktop or web-based products with content from third parties. It may also provide content owned or developed by themselves.
Trade data	Trade data means the data trading venues, systematic internalisers (SIs) and approved publication arrangements (APAs) have to make public for the purpose of the pre-trade and post-trade transparency regime. Therefore, trade data includes the details set out in MiFID RTS 1 and MiFID RTS 2.
Wholesale data	Information (including, but not limited to, quantitative values and measurements in structured formats) generated, distributed and used by market participants in wholesale financial markets, such as: <ul style="list-style-type: none"> • trade data • pricing and valuation data • reference data • credit ratings data • benchmarks and indices • other products such as news, company information, research, analytics.
Wholesale market	A financial market which allows companies, financial institutions and public sector organisations to raise capital. It covers lending, equity, debt, derivatives, foreign exchange and commodities markets.
UK Benchmarks Regulation (UK BMR)	UK version of Regulation (EU) No. 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmark in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014, which is part of UK law by virtue of the EUWA.

8 Abbreviations used in this paper

Abbreviation	Description
AIFM	Alternative Investment Fund Managers
AMC	Annual management charges
API	Application Programming Interface
AuM	Assets under Management
BIS	Bank for International Settlements
BMR	Benchmarks Regulation
CAGR	Compounded annual growth rate
CMA	UK Competition & Markets Authority
CRA	Credit rating agency
EC	European Commission
ECB	European Central Bank
ESG	Environmental, Social and Governance
ETF	Exchange-traded fund
EU	European Union
FTP	File transfer protocol
FX	Foreign exchange
IA	Investment Association
IOSCO	International Organization of Securities Commissions
ISA	Individual Savings Account
IT	Information technology
LIBOR	London Interbank Offered Rate
LSEG	London Stock Exchange Group (LSEG)
MDV	Market data vendor
MTF	Multilateral Trading Facility
OCF	Ongoing charges fees
OTC	Over-the-counter
OTF	Organised Trading Facility
RFI	Request for information
SFTP	Secure File Transfer Protocol
SONIA	Sterling Overnight Index Average
TER	Total expense ratio
WM/R	WM/Refinitiv



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