Guiding Principles for Data Sharing: A Perspective for European Capital Markets

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Contents

Executive summary

Data sharing, or the transfer of data between market participants, public authorities and individuals, is essential to the smooth functioning of capital markets. Each day significant volumes of data are transferred between market participants for the purpose of trade execution, regulatory compliance, business operations and the provision of client services.

In this context, AFME and its members see significant opportunities for greater and improved data sharing within European capital markets, to enable Financial Institutions (FIs) to realise benefits relating to:

- new client products and services,
- improved operational and cost efficiencies,
- enhanced security, resilience and surveillance,
- streamlined regulatory reporting and compliance, and
- innovation and sustainability.

We note that European Union (EU) authorities have similarly identified that data sharing can support the development of competitive European markets. In February 2020, the European Commission published a 'European Strategy for Data'[1], outlining several regulatory proposals to facilitate the flow of data across EU sectors and establish an EU single market for data. We welcome this initiative as an opportunity to support digital innovation in European capital markets.

However, we have also identified a number of barriers and risks which must first be addressed to ensure private and public sector buy-in for further data sharing initiatives. Key barriers and risks identified relate to:

Key barriers	Key risks
• Insufficient governance frameworks • A lack of standardised transfer and access mechanisms • High costs • Poor incentives • Data localisation restrictions • Varying levels of maturity	• Security • Operations • Ethics • Data protection • Intellectual Property • Competition • Duplicative requirements

This position paper has been developed by AFME's Data Strategy Working Group to further consider how to enable greater data sharing in European capital markets. To address the identified barriers and risks identified, we conclude by proposing nine guiding principles to support European policymakers in implementing future data sharing policies. It is important to note however that due to the global nature of financial markets and many market participants, there is significant potential for digital innovation to be driven by the use of cross-border technologies and data flows[2]. These principles are therefore also applicable in a global context, and we welcome further collaboration between public authorities and the industry across jurisdictions to support the development of global data standards and cross-border data sharing arrangements.

[1] https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en
[2] https://www.afme.eu/Publications/Reports/Details/detail/Global-Operating-Approaches-in-Capital-Markets

Guiding Principles for Data Sharing		
#	**Principle**	**Rationale**
1	**Encourage cross-sector data-sharing.**	Data generated in industry sectors outside of capital markets will enable financial products and services to be enhanced for the benefits of competition and client servicing.
2	**Ensure data IP rights are maintained.**	To support incentives for greater data sharing, 'elaborated' or 'inferred' data insights (i.e. collected data that has been 'enriched' or processed in some form) should not be required to be shared between organisations, except unless necessary as part of specific competition policy interventions. Clarity regarding database rights for machine generated and/or processed data could be useful in the context of ongoing technological development. For example, the terms 'substantial investment' and 'database creator' may need to be reviewed and amended.
3	**Promote the standardisation of data types, formats, and transfer mechanisms.**	The development of standards will be essential to creating trust between parties and ensuring efficient and secure data access. This should include standards for Application Programming Interfaces (APIs) and other open-source tools for the secure transfer and storage of data. Standards should also be embedded in IT systems that interconnect across industries. Industry bodies can play an important role in facilitating and driving uptake of standards and market-based data sharing initiatives (e.g. use of standardised APIs) while minimising disruption. Where possible, existing standards, such as the Berlin Group Standard, established under the Second Payment Services Directive (PSD2), should be leveraged, or at a minimum, interoperability with existing standards should be ensured[3]. Beyond this, local and regional standards should also be harmonised at the global level.
4	**Promote APIs as a preferred mechanism for data transfers.**	This will allow individual users or firms to share their data on a real time, ongoing, and secure basis with other providers. Data should also be presented in a format that is standardised and machine readable in both definition and practical application.
5	**Ensure sensitive information is only accessible under robust oversight, security and data privacy measures.**	In the context of new entrants and greater data sharing, appropriate liability and redress mechanisms will be required for users to clearly understand who is responsible for their data, and high standards of data privacy and protection must be abided by across sectors. For example, third parties accessing certain types of sensitive data should first secure an appropriate license to ensure protection of users' data and privacy. Further, there should be minimum standards for ensuring security of the data and clear lines of responsibility in case of a data breach.
6	**Ensure the investments required for data sharing initiatives are proportionate to the benefits of the use-case.**	Data sharing could enable firms to offer better products or services or deliver cost efficiencies, however these benefits should be weighed up against the cost of investment for the initiative in question. Policymakers could consider the use of a standard contractual framework in certain cases, or market standards, to ensure costs are sustainable and to ensure proportionate liability.

[3] https://www.berlin-group.org/psd2-access-to-bank-accounts

7	**Any new direct or indirect requirements towards data localisation must be avoided.**	Data localisation requirements are defined by regulations that require firms to store, process, or handle data within geographic borders.[4] While we recognise the need to uphold the protection of personal and otherwise sensitive data, we do not support proposals which unnecessarily restrict the free flow of data across borders. The free flow of data across borders (with adequate protections) is essential for competition, improving products and services, supporting regulatory compliance and achieving shared industry objectives such as improved cybersecurity.
8	**Data-related policy legislation should be coordinated, consistent and practical.**	To drive greater efficiencies and avoid duplication or conflicts of rules, policymakers should coordinate across sectors and priorities to harmonise initiatives for greater data sharing.
9	**Provide clarity on the development paths of industry standards and formats to ensure effective, efficient, and transparent governance.**	Clear lines of communication between regulators, service providers and the industry will be essential to provide clarity on the trajectory of any developments and make users aware of any changes to avoid service failure or disruption.

We look forward to working with policymakers, regulators and the industry to further discuss these issues in order to identify concrete proposals to support greater data sharing.

[4] https://www.gfma.org/wp-content/uploads/2019/05/international-principles-to-improve-data-mobility-privacy-and-security-website-final.pdf

Introduction

The use and value of data are becoming more critical within financial services. This is because the amount of data available is growing exponentially as more information is recorded digitally, and advances in new technologies are creating opportunities for data to deliver strategic cost, efficiency, and revenue opportunities, as well as new services to clients. In our 2020 report on trends in 'Technology and Innovation in Europe's Capital Markets'[5], we identified that the quality, management, and control of data were areas of ongoing focus within banks to realise the data-driven strategic opportunities available.

The advances in technology and the increasing value of data are now directing policymakers within the EU and globally to take a more active and strategic approach. For instance, they aim to balance data security, privacy, access, and innovation to bring more comprehensive benefits to financial markets and users (e.g., providing greater access for SMEs to capital markets). Large technology providers with extensive access to proprietary data and a more significant presence in financial markets are also driving policymakers to consider measures towards ensuring competition and a level playing field.

The 2020 European Commission 'Digital Finance Strategy[6]' and 'Data Strategy for Europe[7]' (the 'European Data Strategy') have made data a strategic priority for Europe over the next five years. The intention is to create a single market for data within the EU, increasing data sharing to benefit the public and private sectors as well as individuals. In our 2020 AFME response to the European Data Strategy public consultation[8], we welcomed the increased focus on data sharing to ensure the EU remains competitive and becomes a leader in data-driven innovation. We also stated that data sharing could support the EU's goals relating to sustainability as an integral part of its financial policy.

However, we also noted in our response that any measures to increase data sharing within the EU should ensure a level playing field by facilitating a multi-way data exchange across market participants and promoting data sharing across sectors. We also identified several barriers and risks for increased data sharing within financial services which must also be considered, such as: risks to security; barriers to competition and the cost of implementation.

This paper has been developed by the AFME Data Strategy Working Group to assess the opportunities, barriers, and risks for data sharing within European capital markets. It is organised into four sections:

I. Understanding Data Sharing
II. Emerging European Data Policy
III. Opportunities, barriers and risks to data sharing
IV. Guiding Principles for Data Sharing

The paper concludes by proposing nine guiding principles to support European policymakers' objectives in unlocking the value of data sharing.

[5] https://www.afme.eu/Portals/0/AFME_TechnologyInnovation_FINAL.pdf?ver=2020-11-13-135131-297
[6] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0591&from=EN
[7] https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en
[8] https://www.afme.eu/Portals/0/DispatchFeaturedImages/2020%2005%2029%20AFME%20EC%20European%20Strategy%20for%20Data%20response%20(FINAL)_CLEAN.pdf

I. Understanding Data Sharing

This section explores the concept of data sharing and how it relates to European capital markets.

Background

Data sharing is a broad and strategic concept for increasing the transfer and use of data between parties to achieve social, economic, and environmental benefits. Whilst the concept and the term data sharing are not new, there is no formal definition or boundaries on what types of data and activities are in scope. Within Europe, the European Commission 2020 European Data Strategy defines data sharing as public bodies, businesses, and citizens using data safely and fairly for the common good and to ensure a functioning digital market[9,10]. This concept of data sharing is similar to the concept of open data[11], however open data is typically about making datasets freely accessible for re-use by any entity, whereas data sharing is focused on the transfer of data between one or more entities. Examples of open data initiatives are provided in Annex III.

For the purposes of this paper, data sharing is viewed as a mechanism for increasing the transfer of, and access to, data across multiple public and private sectors (e.g. financial services) and individuals to achieve wide-ranging outcomes for competition, innovation, and sustainability. These outcomes could be achieved through mandatory (i.e. regulation) or non-mandatory measures (e.g. voluntary arrangements) and by using a range of technical solutions (e.g. transferring data via APIs, smart contracts, or a centralised database) and governance models (e.g. free at the point of access or monetised through licensing).

It is important to note that this paper focuses primarily on opportunities for data sharing in capital markets outside of the significant volumes of data sharing that take place in European markets daily relating to the trading of financial instruments. Access to market data is essential for FIs in fulfilling regulatory obligations and providing services to their clients, however it often comes at a high cost, and FIs are subject to strict rules regarding data access and licencing. We note that EU officials are developing initiatives that are looking to address these issues, such as the proposal to establish an EU-wide Consolidated Tape. The opportunities discussed in this paper must be considered in the context of this complex and pre-existing environment.

Data Sharing and Financial Services

The financial services sector is one of the most data-intensive sectors in the global economy[12], with the creation, use and transfer of data underpinning nearly every aspect of the industry (e.g. the collation and dissemination of market data, or the submission of transaction or regulatory reports). In our September 2020 paper on *European Capital Markets in the Digital Age*[13], we identified that data is a fundamental building block of the industry and a tool for banks to leverage in driving the adoption of new technologies and innovation.

Over the last five years, data sharing initiatives have been implemented within retail financial services through policy frameworks such as open banking and open finance. Open banking frameworks allow individuals, businesses, and governments to securely share retail banking data relating to account information, transactions, and payments[14] (e.g. as required by PSD2[15]). Open finance frameworks generally build on from open banking by including the sharing of data on a broader range of retail financial products and services such as data on mortgages, pensions, and insurance. Open banking and open finance initiatives are both focused on increasing access to specific financial datasets through the use of APIs and common data standards and definitions. Figure 2 on the next page provides examples of open banking initiatives and their intended outcomes.

[9] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12491-Data-sharing-in-the-EU-common-European-data-spaces-new-rules-_en
[10] https://europeanlawblog.eu/2021/03/01/data-protection-clashes-with-data-sharing-how-will-the-eu-reconcile-its-two-aims/
[11] AFME defines *open data* as data that can be freely used, shared and built-on by anyone, anywhere, for any purpose
[12] https://corporatefinanceinstitute.com/resources/knowledge/other/big-data-in-finance/
[13] https://www.afme.eu/Portals/0/DispatchFeaturedImages/AFME%20European%20Capital%20Markets%20in%20the%20Digital%20Age.pdf
[14] https://www.openbanking.org.uk/customers/what-is-open-banking/
[15] https://ec.europa.eu/info/law/payment-services-psd-2-directive-eu-2015-2366_en

Figure 2: Example open banking and open finance initiatives

Jurisdiction		Intention	Initiative
2017	Australia	Open Banking	• Australian Government Consumer Data Right (CDR) legislation, allowing individuals the ability for third parties to access their banking data.
2018	EU	Open Banking	• European Commission PSD2, allowing third parties to access payment account data on behalf of customers.
	Hong Kong	Open Banking	• Hong Kong Monetary Authority (HKMA) API Framework for common API standards, data definitions, and data sharing for banking products and services.

Within capital markets, data sharing is a mature and fundamental aspect of how the industry operates. The sharing of data takes place mainly for specific requirements to satisfy regulatory, compliance or commercial obligations (e.g. sharing market data, transaction data, or regulatory reporting data). Data sharing in capital markets is intricate and involves a wide range of industry participants who perform different roles (e.g. banks, fintechs, Financial Market Infrastructures (FMIs), regulators, industry utilities). The sharing of data takes place both bilaterally (e.g. business-to-business, business-to-government) and via multilateral platforms (e.g. industry utility solutions exchanges, central securities depositories, data repositories).

Data sharing initiatives in capital markets impact and benefit market participants in different ways (e.g. a bank versus an investor). The initiative can be focused on a specific asset class (e.g. equities trading) or applied horizontally (e.g. data sharing for improving transaction monitoring or fraud detection for all asset classes).

II. Emerging European Data Policy

This section outlines the emerging European policy framework for data sharing and the implications for capital markets, in the wider context of the global regulatory environment.

Background

In 2020-2021 the European Commission proposed several policy initiatives that intend to facilitate data sharing within (and across) public authorities, industry sectors, and individuals. The initiatives are underpinned in an overall European Data Strategy published in February 2020[16]. The primary aim of the European Data Strategy is to create an EU single market for data, which can allow the free flow of data within the EU and across sectors for the benefit of businesses, researchers, and public administrations.

Figure 3 below provides an overview of the main European Commission policy initiatives proposed since 2020 to increase data sharing towards a European single market for data. Background on other EU data-related initiatives is provided in Annex II.

Figure 3: European Commission policy initiatives for data sharing

Initiative	Intent	Summary
European Data Strategy February 2020	Non-legislative	A horizontal policy to create a European single market for data, to promote data-driven innovation through greater data sharing across multiple industry sectors, and to provide clear rules for data access and re-use to facilitate trust in data sharing that align with existing European rules on data privacy and protection.
European Digital Finance Strategy September 2020	Non-legislative	A high-level policy strategy for delivering digitisation in European financial services (promoting data-driven finance through creating a European financial data space is one of four priority areas in the strategy). The objective of a European financial data space is to integrate European capital markets, increase direct investments into sustainable finance activities, and support innovation.
Data Governance Act November 2020	Legislative	This proposal sets out requirements for 'data intermediaries' and public sector bodies on data sharing to increase trust between parties.
European Single Access Point (ESAP) January 2021	Legislative	Establishing a European Single Access Point (ESAP)[17] as a first action in the Action Plan on the Capital Markets Union (CMU)[18]. The ESAP aims to provide a digital, centralised point to pull publicly available data on companies' financial and non-financial disclosures, including Environmental Social Governance (ESG) disclosures and company mandated financial public disclosures in a standardised, machine-readable format. The ESAP aims to make ESG disclosures more easily available on an ongoing basis and comparable for market participants, to reduce costs and enhance transparency in ESG reporting and compliance.
Data Act Expected Q4 2021	Legislative	A horizontal legislative initiative that implements measures to ensure fair access to data between businesses and from business-to-government. As part of this initiative, the European Commission is also expected to review the Database Directive to ensure it is fit for purpose in the context of technological development.

[16] https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en
[17] https://ec.europa.eu/info/consultations/finance-2021-european-single-access-point_en
[18] https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union/capital-markets-union-2020-action-plan_en

Common European Data Spaces

A central pillar of the European Data Strategy, but without a current specific policy initiative, is the proposed establishment of Common European Data Spaces (CEDS) within specific industry sectors and areas of public interest.

CEDS are expected to be a formal mechanism to facilitate data sharing between market participants within, and potentially across, industry sectors, as well as make data available from public sector bodies for research and innovation.

To support the development of CEDS, the European Commission has established several sector-specific expert groups, including an Expert Group on a Common European Financial Data Space (EFDSEG), of which AFME is a member. The groups will support the Commission in defining its policy and technical approach to building CEDS and examining the current barriers and opportunities in each sector. We look forward to actively contributing to the exploration and work in this group, as we believe a common European financial data space could be an important opportunity to explore use cases for greater data sharing in European capital markets.

Global Policy on Data Sharing

There are, to our knowledge, no significant financial policy initiatives focused on the concept of data sharing specifically at the global level. However, data more broadly remains a high priority topic within global bodies. For example, the Financial Stability Board (FSB) and International Monetary Fund (IMF) are addressing data gaps to support the monitoring of financial and non-financial risks[19], and the International Organization of Securities Commissions (IOSCO) is assessing market data access in secondary equity markets[20]. The BIS Innovation Hub (BISIH) is assessing how regulatory reporting data can be more easily shared using RegTech solutions and the development of real-time cloud-based monitoring tools for FMIs. The BISIH objective is for greater real-time sharing and processing of financial data[21] to create opportunities for the delivery of policy objectives around financial stability and efficient financial markets. The BISIH is also considering open finance in the context of digitising trade finance[22] by implementing corporate digital identities to streamline Know-Your-Customer (KYC) and Anti-Money Laundering/Countering the Financing of Terrorism (AML/CFT) processes, which can also be integrated with other future technology solutions.

[19] G20 Data Gaps Initiative (DGI-2).
[20] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD667.pdf
[21] https://www.bis.org/img/topics/ih_prog2122_rio.pdf
[22] https://www.bis.org/about/bisih/topics/open_finance/dtf.htm

III. Opportunities, Barriers and Risks to Data Sharing

This section assesses the opportunities, barriers, and risks of data sharing for European capital markets. It will be critical that policymakers address the barriers and risks identified to achieve the benefits of data sharing in capital markets, financial services more broadly, and other industry sectors.

Opportunities for Data Sharing

Figure 4 below provides examples where greater data sharing for European capital markets can bring opportunities for improved client products and services, operational and cost efficiencies, innovation and sustainability, and improvements in regulatory and compliance requirements. These opportunities will support the development of an EU single market for data and further enhance the value of the European data economy, ambitions which have been identified in the European Data Strategy.

These opportunities illustrate the importance of new technologies, such as Artificial Intelligence (AI) or Cloud Computing, as well as and the increasing use of alternative data sources (e.g. machine data collected using the Internet of Things (IOT)), for enabling greater data sharing. The combination of greater data sharing and new technologies will be important for enabling banks to continue to adapt in an increasingly digital world and increase their resilience (e.g, using additional or more diverse datasets to improve cybersecurity).

Data sharing will also benefit cross-border data flows relevant to many of the opportunities outlined in Figure 4. For example, greater cross border data flows can enable centralised risk management and screening to improve financial crime detection. Greater cross-sectoral data flows can also improve decision-making on credit allocation, resulting in enhanced client services and returns.

Figure 4: Opportunities for data sharing in European capital markets

Opportunities		Benefits
Sales and Trading	• Using pre- and post-trade delayed data for market share analysis, market liquidity analysis, trading algorithms, and in-flight monitoring of trades • The use of alternative data sources (i.e. data from other sectors) to offer clients improved services and bespoke products	• Enhanced risk management and optimised capital usage • Improved performance management • Increased client product choice
Security and Resilience	• Greater sharing of incident reporting data between FIs within trusted networks on a near real-time basis	• Enhanced AI/ML prediction and detection of anomalies • Enhanced cyber resilience across the financial sector
Sustainable Finance	• Satellite image data to determine the sustainability of assets underlying a financial product labelled as sustainable • Sustainability reporting data (e.g. financial public disclosures) to evaluate the sustainability performance of listed and non-listed companies and the evolution of this performance over time • Using external data to fulfil climate-related prudential reporting	• Improves the transparency and comparability of sustainable finance-related data • Discouraging 'greenwashing' in new products and securities labelled as sustainable • Simplifying the possibility of third-party checks on financial products' sustainability • Enhanced assessment of physical risk and transition risk of underlying assets

	obligations relating to credit risk exposures, stress tests and ratings	
Reporting	• Enhanced access to aggregated and anonymised reporting data (e.g. as per the Second Markets in Financial Instruments Directive (MiFID II), Central Securities Depository Regulation (CSDR)) for benchmarking, and developing or refining market practices and regulations	• Greater standardisation • Streamlined regulatory processes
Conduct and Surveillance	• Enhanced access to datasets to improve the identification of suspicious behaviour (e.g. trade, conduct, communications)	• Reduced risk of market abuse and false positive alerts
Financial Crime	• Greater and more real-time sharing of data between FIs, supervisory authorities, and law enforcement within and across Member States to identify money laundering, terrorist financing, and fraud[23]	• Reduced number of Suspicious Activity Report (SAR) submissions and increased quality of information that is shared with the public sector • Reduced costs, and increase speed, of client onboarding (e.g., streamlining AML requirements)
Operations	• Automation of multiple operational processes by streamlining the process of data collection and management (e.g. through use of machine-readable data)	• Reduced operational costs, reduced instances of manual errors

Barriers to Data Sharing

There are also several barriers that exist in the market today which create technical or operational obstacles to data sharing or reduce incentives for market participants to engage in further data sharing initiatives. Figure 5 on the next page outlines some of the main barriers that could limit the benefits of data sharing from being realised in European capital markets. Many of the barriers will also be relevant to other industry sectors and public bodies (e.g. E-commerce, technology service providers).

It will be important that these barriers are addressed in European data sharing-related policy initiatives for the objectives of a European single market for data to be realised.

[23] p 18 - https://www.afme.eu/Portals/0/DispatchFeaturedImages/AFME_TransactionMonitoring2021-2.pdf

Figure 5: Barriers for greater data sharing in European capital markets

Barriers	Description
Governance	• The absence of consistent data descriptions and a lack of prioritisation of data requests increases burdens in data processing • A lack of a standardised data formats (e.g. MiFID II trading venue data, new forms of data such as climate data) means that published data is not always accurate, complete, or correctly classified. Further, this means that data can be difficult and costly to extract for banks and regulators and is not user or machine friendly • A lack of robust and sound governance in data management from third parties has resulted in regulators and supervisors advising against the use of shared data for certain banking use cases
Transfer & Access	• A lack of harmonised transfer mechanisms with corresponding APIs standards to ensure the transfer of high-quality and homogeneous data • Inability to access data from non-financial organisations due to a lack of technical interoperability, transfer mechanisms, or appropriate security measures • Difficulties reading and capturing data from public registers (e.g., powers of attorney, incorporation of companies) where a bank must first organise the data into a readable and structured format • A lack of standardised methods for portability which makes it difficult for clients to transfer their data
Investment	• High costs to implement and migrate to new data formats and reports • Complexity in determining the market price or a preferential rate for data (e.g. the different interpretations of value that could be applied to data)
Localisation	• Data localisation requirements preventing the free flow of data across jurisdictions (e.g. certain data types needing to be stored locally within a jurisdiction)
Incentives	• Data sharing policy or regulatory frameworks that are focused on a one-way approach (e.g. PSD2) reduce incentives for further sharing of data
Maturity	• Variation in the maturity towards strategic data sharing, or an "open-source culture", which impedes uptake of API-based solutions

Risks of Data Sharing

There are also specific risks that could arise from increased data sharing for European capital markets. These risks could increase the cost of data sharing or act as disincentives for engaging in further data sharing initiatives. They are outlined in Figure 6 below.

Figure 6: Risks from greater data sharing in European capital markets

Risks	Description
Security	• Security risks from the emergence of new financial service providers that may not be held to the same security standards as established, regulated institutions • A lack of robust and sound governance in data management from some third parties, which has resulted in some regulators and supervisors advising against the use of shared data for certain banking use cases
Operational	• Risk of service disruption or failure if data formats or standards are changed by data providers at will or without predictability
Data Protection	• Risk of data protection violation in cases where there is no clear governance framework or security requirements • Risks for the mistreatment of data if clear rules are not set out regarding the treatment of a firm's data when shared (e.g. loss of data/recovery of funds related to a fraudulent payment when the responsibility sits with a third party). This risks incurring disproportionate liabilities in cases where governance and responsibilities are unknown, unclear, or undefined. For instance, in a new financial ecosystem of service providers, it must be made clear how and where to assign liability for a third-party data breach and any resulting financial harm
Intellectual Property	• Competition risks if the sharing of 'elaborated' or 'inferred' data is mandated by future policy. Data that is inferred or elaborated is intellectual property of that firm, which must retain value in order to enable continued research, development and innovation • A lack of clarity regarding whether machine generated data is legally protected under the *suis generis* right granted under the EU Database Directive creates a risk of loss of value of that investment
Ethics	• Bias in the collection and analysis of data creates a risk of societal harm and reputational damage • Risk of reputational damage to FIs if data is mis-used or used in settings that a client did not expect
Competition	• Risk of a 'competitive divide' between FIs resulting from data sharing initiatives (e.g. not all firms may benefit in the same way or at the same time) • Risks for an unlevel playing field and market structure if data sharing policy is narrowly scoped to certain sectors, including financial services
Duplication	• Risk of duplicative sharing of financial services data if future data sharing initiatives conflict with ongoing market initiatives (e.g. EU Consolidated Tape initiative)

IV. Guiding Principles for Data Sharing

Greater data sharing in Europe will have significant implications for the public and private sectors, including European capital markets. This paper has highlighted how data sharing is a strategic policy objective of the European Commission, and it has outlined the opportunities, barriers, and risks for further data sharing in European capital markets.

Based on the findings in this paper, we have developed nine guiding principles tabled in Figure 7 below to support European policymakers in achieving the objectives of greater data sharing and addressing the barriers, and risks this may present. These guiding principles are mapped to the barriers and risks to data sharing risks that were identified in the previous section. We note that these principles also applicable in a global context, and we welcome further collaboration between public authorities and the industry across jurisdictions to support the development of global data standards and cross-border data sharing arrangements.

Figure 7: Guiding Principles for Data Sharing in European capital markets

Guiding Principles for Data Sharing		
#	**Principle**	**Rationale**
1	**Encourage cross-sector data-sharing.**	Data generated in industry sectors outside of capital markets will enable financial products and services to be enhanced for the benefits of competition and client servicing.
2	**Ensure data IP rights are maintained.**	To support incentives for greater data sharing, 'elaborated' or 'inferred' data insights (i.e. collected data that has been 'enriched' or processed in some form) should not be required to be shared between organisations, except unless necessary as part of specific competition policy interventions. Clarity regarding database rights for machine generated and/or processed data could be useful in the context of ongoing technological development. For example, the terms 'substantial investment' and 'database creator' may need to be reviewed and amended.
3	**Promote the standardisation of data types, formats, and transfer mechanisms.**	The development of standards will be essential to creating trust between parties and ensuring efficient and secure data access. This should include standards for Application Programming Interfaces (APIs) and other open-source tools for the secure transfer and storage of data. Standards should also be embedded in IT systems that interconnect across industries. Industry bodies can play an important role in facilitating and driving uptake of standards and market-based data sharing initiatives (e.g. use of standardised APIs) while minimising disruption. Where possible, existing standards, such as the Berlin Group Standard, established under the Second Payment Services Directive (PSD2), should be leveraged, or at a minimum, interoperability with existing standards should be ensured[24]. Beyond this, local and regional standards should also be harmonised at the global level.
4	**Promote APIs as a preferred mechanism for data transfers.**	This will allow individual users or firms to share their data on a real time, ongoing, and secure basis with other providers. Data should also be presented in a format that is standardised and machine readable in both definition and practical application.

[24] https://www.berlin-group.org/psd2-access-to-bank-accounts

5	**Ensure sensitive information is only accessible under robust oversight, security and data privacy measures.**	In the context of new entrants and greater data sharing, appropriate liability and redress mechanisms will be required for users to clearly understand who is responsible for their data, and high standards of data privacy and protection must be abided by across sectors. For example, third parties accessing certain types of sensitive data should first secure an appropriate license to ensure protection of users' data and privacy. Further, there should be minimum standards for ensuring security of the data and clear lines of responsibility in case of a data breach.
6	**Ensure the investments required for data sharing initiatives are proportionate to the benefits of the use-case**.	Data sharing could enable firms to offer better products or services or deliver cost efficiencies, however these benefits should be weighed up against the cost of investment for the initiative in question. Policymakers could consider the use of a standard contractual framework in certain cases, or market standards, to ensure costs are sustainable and to ensure proportionate liability.
7	**Any new direct or indirect requirements towards data localisation must be avoided.**	Data localisation requirements are defined by regulations that require firms to store, process, or handle data within geographic borders.[25] While we recognise the need to uphold the protection of personal and otherwise sensitive data, we do not support proposals which unnecessarily restrict the free flow of data across borders. The free flow of data across borders (with adequate protections) is essential for competition, improving products and services, supporting regulatory compliance and achieving shared industry objectives such as improved cybersecurity.
8	**Data-related policy legislation should be coordinated, consistent and practical.**	To drive greater efficiencies and avoid duplication or conflicts of rules, policymakers should coordinate across sectors and priorities to harmonise initiatives for greater data sharing.
9	**Provide clarity on the development paths of industry standards and formats to ensure effective, efficient, and transparent governance.**	Clear lines of communication between regulators, service providers and the industry will be essential to provide clarity on the trajectory of any developments and make users aware of any changes to avoid service failure or disruption.

[25] https://www.gfma.org/wp-content/uploads/2019/05/international-principles-to-improve-data-mobility-privacy-and-security-website-final.pdf

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About AFME

The Association for Financial Markets in Europe (AFME) represents a broad array of European and global participants in the wholesale financial markets. Its members comprise pan-EU and global banks as well as key regional banks, brokers, law firms, investors and other financial market participants. AFME advocates for stable, competitive, sustainable European financial markets that support economic growth and benefit society.

AFME is the European member of the Global Financial Markets Association (GFMA) a global alliance with the Securities Industry and Financial Markets Association (SIFMA) in the US, and the Asia Securities Industry and Financial Markets Association (ASIFMA) in Asia.

Annexes

Annex I

A glossary of common terms related to data sharing.

Term	Definition
Personal data	Data which relates to an identifiable individual
Non-personal data	Data which does not relate to an identifiable individual
Observed data / raw data	Unstructured data that has been collected
Derived data / inferred data	Collected data that has been 'enriched' or processed in some form
Alternative data	Data derived from non-traditional capital markets data sources
Open banking	Allowing customers to have immediate access to and share their account data with authorised third parties in order to complete transactions on their behalf
Open finance	Expanding the open banking principle to other types of financial data, such as transaction data and product reference data
Open data	Expanding the principle of on demand data sharing through mechanisms such as APIs to other types of raw and observed data, in any sector

Annex II

A list of EU data related policy initiatives.

- **Digital Operational Resilience Act (September 2020):** Requires firms to include locations where data will be stored and processed in their contracts with ICT providers. Requires "critical" ICT providers to have a business presence in Europe. Some Member States are pushing for stronger data localisation requirements within DORA.
- **Digital Markets Act (December 2020):** Rules or gatekeeping platforms to provide real-time data portability, and restrictions on combining certain data between their different offerings.
- **Review of the Non-Financial Reporting Directive (NFRD) (Q1 2021):** Application and operationalisation of existing legislation (the taxonomy and sustainable finance disclosure regulation). Adjusting legislation to ensure reported data matches the disclosure needs of market participants.
- **New standard contractual clauses for data transfers to non-EU countries (March 2021):** Draft standard contractual clauses under GDPR for contracts between data controllers and processors, and the transfer of personal data to third countries (follows Schrems II ruling).
- **Artificial Intelligence Legislative Proposal (April 2021):** Elements such as data quality and transparency. This will be followed with guidance specifically upon the use of AI in the financial sector developed by the ESAs and ECB.
- **AML Review (April/May 2021):** Clarifications to enhance information-sharing practices between Financial Intelligence Units, as it seeks to strike a balance between anti-money laundering and data protection.
- **Regulation on Electronic Identification and Trust Services (eIDAS) Review (Q2 2021):** Support better management of data. The European Commission will bring forward a proposal to review eIDAS with the aim of creating pan-European solutions.
- **Data adequacy with the UK (June 2021):** The EU adopted two adequacy decisions regarding personal data protection with respect to the UK, which relate to GDPR and the Law Enforcement Directive.
- **MiFID Review (Q4 2021):** Could address topics around market data (ownership, costs, use).
- **European analytical framework for measuring data flows (Q4 2021):** A framework for measuring global data flows.
- **PSD2 review (2022):** Reviewing PSD2 and new legislation on "open finance".

Annex III

Examples of open data initiatives.

Year	Jurisdiction	Initiative	Summary
2015	EU	Open Data	• European Commission Open Data Portal to provide a repository for public sector data and re-use within the EU.
2019	EU	Open Data	• European Commission Directive on open data and the re-use of public sector information, identifying datasets to be available free of charge, in machine readable formats and via APIs.
	UK	Open Data	• FCA Review on Smart Data, the secure sharing of individuals data with authorised third-party providers (non-financial services sectors). • Development of Open Banking Implementation Entity platform, to facilitate common APIs and data standards
2020	EU	Open Data	• European Data Strategy, to create a single market for data within the EU and across sectors to benefit businesses, researchers, and public administrations.

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