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Leveraging corporate financial statements for policy insights

Dominik Elgg, Taejin Park, Olivier Sirello, Bruno Tissot and Jose Maria Vidal Pastor[1]

Executive summary

The growing availability of detailed **information in published corporate financial statements provides a key source for policy-relevant insights**. These documents, rooted in formal accounting standards, typically offer a unique perspective on firms' behaviour and vulnerabilities, contributing to monitoring broader economic developments and informing monetary and financial stability decisions.

Meanwhile, the **content of financial statements is continuously expanding**, as firms appear to increasingly disclose additional material in response to evolving regulations, accounting standards and societal expectations. In particular, sustainability issues, such as climate risk and carbon footprint, have become an integral part of corporate reports, even though gathering this information presents important challenges in terms of quality, harmonisation and certification practices.

Central banks have been actively combining information from corporate reports with other data, including of a non-public nature, to enhance their usefulness. Specifically, the growing digitalisation of economies has enabled the **integration of new and alternative data sources** to complement "traditional" financial reports, helping to address quality issues and coverage. These promising opportunities are reinforced by technological innovation, including big data analytics and artificial intelligence (AI), which allows for better access, processing and use of structured and unstructured data, helping to capture previously underutilised information.

As a result, both public and non-public **corporate financial statement data can increasingly be leveraged to support central banks' statistical, analytical and policy tasks**. The greater availability of more comprehensive firm-level information can in particular allow to identify global and regional economic dynamics, facilitate

[1] Respectively, Expert in data accessibility of public corporate reports of non-financial entities, Department of Data and Statistics, Deutsche Bundesbank (Dominik.Elgg@bundesbank.de); Head of Financial Markets and Research Support, Monetary and Economic Department (MED), Bank for International Settlements (BIS) (Taejin.Park@bis.org); Senior Statistical Analyst, MED, BIS (Olivier.Sirello@bis.org); Head of Statistics and Research Support, BIS, and Head of the Secretariat of the Irving Fisher Committee on Central Bank Statistics (IFC) (Bruno.Tissot@bis.org); Principal Financial Market Analyst, MED, BIS (JoseMaria.VidalPastor@bis.org).

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the development of new indicators and forecasts, improve early warning systems and, more broadly, reveal hidden risks, especially during crises such as the Covid-19 pandemic. These elements are essential ingredients that inform monetary and financial stability policies, helping to design and calibrate public interventions and monitor their impact effectively.

Yet **important challenges remain**, in particular regarding the accessibility and interoperability of the vast amount of information contained in corporate reports, including supplementary disclosure such as management's discussion and analysis. Fortunately, important international initiatives are under way to improve the coverage and quality of this information, especially in the area of sustainability disclosures.

Looking forward, **making the most of financial statement data calls for a clear roadmap to enhance their accessibility and adequate sharing as well as their comparability and overall quality**, in at least four main directions. First, enhancing the global statistical infrastructure appears to be a major requirement, particularly by further enhancing global common identifiers, information standards and, broadly, interoperability. Second, stronger collaboration among the various stakeholders involved in the corporate reporting ecosystem can facilitate adequate data-sharing and unlock the full potential of existing information. Third, innovation should be properly pursued to make the most of promising technologies, such as AI, while addressing the important challenges associated with their use. Ultimately, and perhaps more fundamentally, ensuring public trust in corporate disclosures and in turn in their use for official statistics and public policy is essential. From this perspective, central banks can play a key role as "data curators" to safeguard the quality, integrity and authenticity of financial statement data.

1. Introduction

Attention is increasingly paid to leveraging the vast and diverse information contained in corporate financial statements to support statistical work and produce policy-relevant insights. Central banks have been at the forefront of this trend, reflecting their important roles as both producers of financial data in national statistical systems[2] and users of such information to fulfil their mandates, especially in the areas of monetary and financial stability (Rosolia et al (2021)).

The concept of "financial statements"[3] is often used in a wider sense. **In simple terms, financial statements are formal records that provide accounting information about a firm** over a specific period.[4] These statements mainly include the balance sheet, which shows the firm's financial position at a specific point in time,

[2] For example, central banks are tasked with compiling financial accounts and external statistics in many jurisdictions; see Diz Dias et al (2025) and IFC (2020a).

[3] This concept is usually associated with various synonyms, such as annual accounts, annual reports, corporate reports and financial reports.

[4] Typically on a yearly or, for most publicly listed companies, half-yearly or quarterly basis. For further information, see IAS 1.10–11 regarding the definition of a complete set of financial statements, and, in the case of the European Union (EU), Commission Regulation (EU) 2023/1803 (eur-lex.europa.eu).

and income statement, which details the revenues, expenses, profits or losses over a certain period.[5] This information is either published or kept internally but generally made available to public authorities for specific purposes.

In practice, **financial statements have become increasingly complex and multidimensional**, for four main reasons. First, these records may follow different accounting standards and practices, for example in terms of presentation, classifications and consolidation. Second, they may also differ in terms of disclosure requirements. Large, publicly traded firms generally publish their audited accounts regularly, but this may not be the case for other – usually smaller – firms.[6] Third, financial statement data are often combined with other (non-public) sources, which include administrative, business and credit registers, and statistical surveys. Fourth, there has been a general trend towards providing additional non-financial information along with core financial reporting, such as on sustainability and governance issues. Such supplementary disclosure is typically given in "notes" attached to financial statements, with relevant details often published on a voluntary basis.

Reflecting the above factors, one will typically refer to "financial statement data" as the overall (disclosed or not) information related to the financial position and activities of a firm. **The supply of this information has been growing significantly over time**, especially for non-financial firms.[7] It provides rich insights on various corporate activities, which are particularly valuable to shareholders or creditors (Rejison (2025)) as well as public institutions, such as central banks, supervisors and fiscal authorities. Three major aspects are particularly noteworthy from this perspective.

First, **the granularity of the data has proved particularly valuable for analysing complex social and economic developments** and supporting policymaking with greater agility. In particular, micro-level records can help to better assess the increasing interconnectedness of the global financial system – a need clearly evident since the Great Financial Crisis of 2007–09 (GFC) and the expansion of non-bank financial intermediation (BIS (2025)). More broadly, granular financial information can assist users with a wide range of analyses related to structural changes, such as those observed in the wake of the Covid-19 pandemic in 2020–21 (Jahangir-Abdoelrahman and Tissot (2023)).

Second, the **information provided in financial statements has expanded to cover emerging issues**. A clear example is climate risk, which has become an important policy concern and has led to the incorporation of environmental

[5] Other main items include the liquidity position (cash flow statement) and changes in equity related in particular to retained earnings (statement of shareholders' equity).

[6] For example, in a number of jurisdictions, publicly traded firms also disclose a management's discussion and analysis (MD&A) section as part of their financial statements. This information accounts for a company's business and comments on the changes to financial statements in terms of profitability, cash flows, capitalisation and asset structure. This section has become even more relevant with the new corporate sustainability disclosure requirements, such as in the EU; see Directive (EU) 2022/2464 on corporate sustainability reporting (eur-lex.europa.eu).

[7] Noting that a large part of the financial sector is supervised and reports such data in a separate way to central banks and financial supervisors.

indicators, alongside broader sustainability matters, into financial reporting frameworks. These metrics are increasingly integrated into core financial analysis, reflecting their growing importance in economic and financial decision-making processes.

Third, **innovative techniques allow for better leveraging the financial statement data**. Big data analytics have already proved effective in coping with the expansion of micro data sources over the past few decades, supporting central banks' key functions, including statistical production, economic analyses and forecasts, monetary and financial stability assessments, regulatory monitoring and, more recently, the promotion of sustainable finance (IFC (2024a)). A fundamental aspect from this perspective is that new AI-based tools, specifically large language models (LLMs), can greatly help to tap into unstructured data sources, especially textual information contained in published corporate statements.

Despite these developments, **the overall quality [8] of the information contained in financial statements remains an important challenge**, especially in terms of accuracy, frequency, timeliness and completeness. Certainly, reports published by companies should generally be of higher quality when they are subject to external and independent audits, but there can still be important inaccuracies, especially those arising from incorporating this information in general databases. This is even more challenging when authorities need to compile directly by themselves additional/non-public corporate-level indicators to support their functions. Reflecting the above, central bank statisticians typically have to deal with a very large number of accounting questionnaires and often need to manually debug the data or, worse, discard them due to missing or inconsistent information.

Therefore, **accurate, comprehensive and timely financial statement data are increasingly required to effectively support evidence-based decision-making** across various financial and economic domains. This underscores the critical importance of collaboration between reporters, statisticians, analysts and policy users to ensure the quality of financial statement data, facilitate their integration with other data sources and promote their access to and use by relevant stakeholders.

To address these developments and explore emerging opportunities, the Irving Fisher Committee on Central Bank Statistics (IFC) of the Bank for International Settlements (BIS), the European Committee of Central Balance Sheet Data Offices (ECCBSO) and the Bank of Spain jointly organised **a workshop on "New insights from financial statements"** in late 2024 in Madrid, Spain, building on previous IFC work in this area (see IFC (2014, 2017, 2022, 2024a)). This collaborative initiative brought together experts from various fields to discuss innovations and challenges in extracting valuable insights from financial statement data and address information needs.

[8] In line with previous work conducted by the IFC, the concept of "data quality" is understood here in a broad sense, spanning the various characteristics sought for in official statistics and captured by the Fundamental Principles of Official Statistics (UN (2014)). These include in particular accuracy, integrity, security, transparency and trustworthiness. The concept also covers the user side, for instance to ensure that the data are fit for purpose, easily accessible, findable, traceable and reusable, and that they can eventually be deleted adequately. Lastly, it includes ethical aspects, such as assuring impartiality, objectivity, professional independence and social acceptability (IFC (2021c)).

The overview of this *IFC Bulletin* presents the workshop's key contributions across **four main dimensions**:

- The rich and expanding information contained in financial statement data, including on new sustainability issues (section 2)
- The new prospects offered by alternative data sources and innovative tools and techniques (section 3)
- The opportunities for developing better statistics and policy insights on the economy and the financial system (section 4)
- Proposals for addressing the ongoing challenges and advancing the effective use of financial statement data (section 5).

2. The rich information content of financial statement data

Multiple information dimensions

Financial statement data encompass a wide range of information influenced by three key dimensions: (i) accounting standards; (ii) disclosures practices; and (iii) integration with other sources.

First, financial reporting follows **accounting standards and principles** based on the prevailing practices where the firm is incorporated. Noteworthy examples include the Generally Accepted Accounting Principles (GAAP) in the United States[9] and the International Financial Reporting Standards (IFRS) that are recognised in many jurisdictions globally, including Europe. These standards typically aim to harmonise the accounting rules used for corporate reporting – such as in terms of consolidation, the presentation of the items disclosed by firms as well as the classification of the accounts involved.

Second, financial statements depend on specific **disclosure practices and requirements**. Large and publicly traded firms are usually obliged by regulations to disclose accounting reports to the public, with notable differences across jurisdictions.[10] Smaller or privately held entities may not be required to do so, or they may choose to disclose their accounts selectively, for instance through a simplified presentation. A key reason for this is the evident trade-off between full (public) disclosure – with benefits in terms of accountability and transparency – and reporting burden, which is typically greater for smaller firms with limited administrative

[9] Local versions of GAAP can also be implemented in a number of jurisdictions, such as in Switzerland (so-called Swiss GAAP) and the EU; see the EU "accounting directive", Directive 2013/34/EU (eur-lex.europa.eu), as well as van Hulle and van der Tas (2000)). It should be noted that IFRS has had a strong impact in the development of local versions of GAAP over time.

[10] For instance, parent undertakings with securities traded on an EU-regulated market are obliged to set up consolidated financial statements in accordance with IFRS.

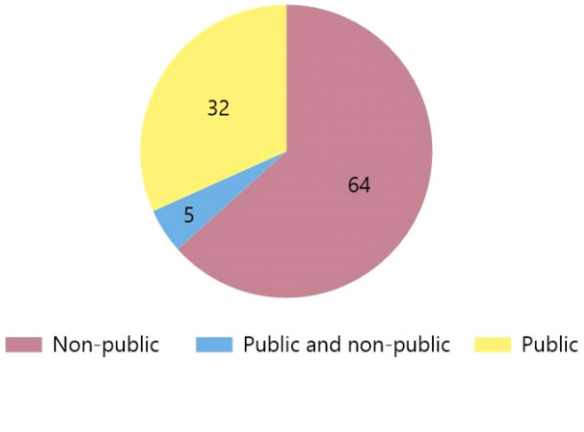
capacities,[11] as well as privacy concerns and peer competition. For example, it is estimated that around two thirds of financial statement data sources in Europe are not publicly disclosed (Graph 1).

Public and non-public financial statement data sources used by European CBSOs

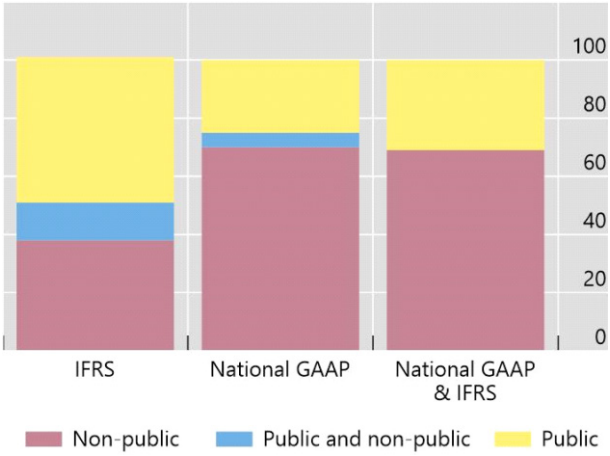
In per cent

Graph 1

A. Types of financial statement data sources



B. Public and non-public sources by accounting standard



CBSOs = central balance sheet data offices; IFRS = international financial reporting standards; GAAP = generally accepted accounting principles.

Source: ECCBSO Report 2021.

Third, authorities typically combine published **financial reports with other (often non-public) sources**, which include administrative, business and credit registers and statistical surveys. These sources depend on various national practices and/or institutional factors related, in particular, to the legal framework governing the collection of firm-level data, their degree of confidentiality and shareability.[12] To this end, a number of jurisdictions have established central balance sheet data offices (CBSOs) that collect, process, disseminate and analyse various types of corporate financial statement data (IFC (2017)).

The value of firm-specific insights

A key factor underlying the richness of the information contained in financial statement data relates to their high granularity. Indeed, micro-level corporate

[11] Reflecting this point, publication in Europe depends for example on whether an entity limits its liability, thereby conditional on the size of the company or whether the entity belongs to a group (Directive 2013/34/EU; see eur-lex.europa.eu).

[12] Historically, these offices, often operated by the statistical department of the central bank in cooperation with the statistical office, were gradually established in the second half of the 20th century, eventually leading to the creation of the ECCBSO (ECCBSO (2021), Ortega (2014)). This group, which mostly but not only comprises EU central banks, aims to improve the analysis of non-financial corporate enterprise data through the exchange of information and joint studies; see eccbso.org.

reports can reveal idiosyncrasies that would otherwise remain undetected by looking at aggregate statistics alone.

First, and obviously, this information represents a **main source to analyse corporate health, behaviour and potential risks**. It provides subtle details for assessing key financial vulnerabilities, such as credit, market or liquidity exposures as well as the expected default probability. One telling example relates to the use by many central banks of financial statement data to assess the credit quality of eligible assets in order to conduct their market operations.

Second, these granular data **allow the analysis of interconnections** between sectors, shedding light on concentration risks and spillover channels in the economy and the financial system – a critical dimension for early identification of vulnerabilities and systemic risk assessment (IFC (2017)). For instance, the careful tracking of economic agents' positions can help to assess corporate exposure to foreign debt and currency mismatches and thereby to better anticipate potential corporate stress before it materialises and reaches systemic dimensions (IFC (2020b)).

Third, **firm-level specificities can in turn provide insights on broader macroeconomic developments**. This aspect proved particularly valuable during the Covid-19 pandemic, as detailed firm-level data helped to precisely decipher its economic impact. For instance, Banco de Portugal used financial statement information to identify the key characteristics that enabled certain firms to weather the crisis more effectively. Similar data also allowed the Bank of Italy to assess how price increases in intermediate goods and energy affected firms' pricing strategies and value added. In other words, a good understanding of corporate-level characteristics helped understand broader and structural macroeconomic developments.

Fourth, the granularity of financial statements also enables a **better understanding of local developments**, complementing the usual set of macroeconomic statistics that are mostly presented at the national level. For example, firm-level financial data collected by the Bank of Spain's CBSO have been combined with locational information from other sources to produce detailed regional insights (Fernández Cerezo et al (2024)).

Fifth, these data also represent a **useful window into future economic developments.** In particular, information on corporate debt structures, risk exposures, investment plans and profit projections provides a forward-looking perspective that ideally complements the traditionally backward-looking nature of macroeconomic statistics. For instance, domestic companies allocating a higher proportion of cash flow to debt repayment (instead of investments, cash savings and dividends) are found to experience larger financial frictions (Farias (2024)). This suggests that monitoring cash flow allocation could help to anticipate episodes of financial stress.

Filling new data needs, especially to tackle sustainability issues

The **content of financial statement data is constantly evolving**, as are the requirements to address information gaps, depending on national circumstances, regulations, standards and stakeholders' needs. But, perhaps more significantly, these

changes have increasingly blurred the boundary between "financial" and "non-financial" information in the context of corporate reporting.

A key example relates to so-called "sustainability reporting", which integrates environmental, social and governance (ESG) information in corporate disclosure.[13] This development is essentially driven by regulatory measures, evolving global reporting standards and growing public interest in sustainability issues in recent years (eg impact of climate change, social responsibilities, diversity and inclusion). Increased appetite by firms for ESG disclosure is also influenced by organisational, reputational and legitimacy strategies, for example to show environmental friendliness and sustainability progress (Arkoh et al (2024)). As a result, once considered peripheral to reporting frameworks traditionally centred on "core" financial performance indicators, the ESG dimension has now become an important component of comprehensive firm-level assessments, for instance in terms of risk identification, investment analysis and attractiveness.

The above changes reflect a **fundamental shift in how markets conceptualise corporate performance and value creation**. For instance, climate-related risk has become a major concern, representing a requirement or a strong incentive to report the carbon footprint and associated mitigation measures (CMFB (2023a), IFC (2024b)). Yet the absence of widely agreed standards has led to the proliferation of a variety of practices, raising important challenges in terms of quality – as firms may selectively disclose data with little degree of assurance, consistency and comparability – and disinformation – such as the well-known issue of "greenwashing" (IFC (2025a)).

Against this backdrop, **enhanced sustainability reporting has been supported by key regulatory measures in recent years**, particularly in Europe, with the Corporate Sustainability Reporting Directive (CSRD) and the respective European Sustainability Reporting Standards.[14] In addition, there is a growing recognition globally that financial statements should incorporate climate-related data in alignment with International Sustainability Standards Board (ISSB) standards (IFRS Foundation (2023)).

Increasing the amount and variety of sustainability indicators disclosed at the level of individual firms would also support **addressing pressing information gaps at the macro level**. For instance, over 100 key ESG metrics derived from corporate financial statements have been identified that could better support green finance monitoring and central banks' policy decisions (IFC (2021b)). The integration of these data is therefore not merely a reporting exercise, as it has profound implications for informing public decision-making with meaningful macro analyses. For instance, research conducted at the University of East London shows that green finance can significantly influence national patterns in capital flows, reshaping traditional lending relationships between banks and the non-financial sector.

[13] Anecdotally, the "non-financial reporting directive" (2014/95/EU) in the EU has been replaced by the CSRD, highlighting the central place of sustainability issues in the broader context of financial reporting.

[14] See EU Delegated Regulation 2023/2772 (eur-lex.europa.eu) and ESMA (2024).

3. Prospects offered by alternative data sources and innovative techniques

New information sources

While corporate financial reports can provide a robust foundation for firm-level analysis, they **can be usefully complemented by statistical and alternative data sources that are increasingly available with the ongoing information revolution**. Two fundamental contributions are worth mentioning here: (i) delivering deeper insights on corporate activities that are not explicitly captured by "traditional" financial statements; and (ii) enhancing statistical coverage and quality.

Regarding the first contribution, the **integration of various information sources can help bridge gaps in conventional financial reporting**. A telling case relates to the measurement of intangible assets such as data, software and other research and development investments which are typically difficult to estimate, despite their significant contribution to productivity and economic growth especially in knowledge-intensive sectors (Corrado et al (2025)). One solution is to combine transaction-level data on such assets with the more standard financial metrics derived from financial statements. Another option, explored at Katholieke Universiteit Leuven, is to integrate information on firm-level intellectual property rights. The university's findings suggest that linking data sets on patent registrations, trademarks and other intellectual property indicators with financial reports can provide useful insights on the contribution of innovation to economic outcomes, depending on sectors and firm types. Finally, a project at the National Bank of Belgium and Katholieke Universiteit Leuven combined annual company financial accounts with transaction level data. The project underscored the significant role of intangible assets in productivity growth and the importance of capturing these investments for a more accurate understanding of economic dynamics.

Turning to the second contribution, **the integration of more diverse data sources can be instrumental in enhancing the coverage and quality of statistical indicators** (IFC (2025b)). For instance, a project at the Bank of Thailand has been combining data from financial statements with statistical sources, such as monetary and financial statistics and international investment position data, to create more robust sectoral balance sheet estimates. This integration was able to improve the coverage, granularity and timeliness of the statistics produced.

New data techniques

Developments in big data analytics, AI and machine learning (ML) have allowed expanding the scope and depth of insights that can be extracted from financial statement data, along three dimensions: making data more accessible, making them more useful and improving their quality.

The first important dimension relates to the **accessibility of information**, which can be greatly improved by AI.[15] Perhaps the most significant development observed in recent years involves natural language processing techniques that can extract structured insights from unstructured textual disclosures (IFC (2025c)). Hence, one can more easily unlock qualitative information that was previously available in financial reports but was underused – including critical discussions of firm-level risks, opportunities and strategic plans. For instance, a promising avenue explored at the BIS involves the application of new AI-based tools, especially LLMs, to support text analytics and systematically process qualitative discussions contained in financial reports. In a similar vein, a recent project conducted at the Frankfurt School of Finance & Management examined how ML models can generate sustainability data from published reports, offering insights into corporate environmental performance even when explicit ESG disclosures are limited or inconsistent.

Second, **innovative analytical capabilities can improve the usefulness of financial statement data to support analysis and policy work**. For instance, LLMs can be particularly valuable for identifying emerging risks that lack established quantitative metrics but can thereby be more systematically monitored across large populations of firms. Central banks and regulators are indeed increasingly deploying such tools to conduct sophisticated analysis and derive insights that would be impossible to obtain through more conventional methods (IFC (2021a)). Moreover, as LLMs continue to advance rapidly, their ability to capture context, detect subtle signals and extract targeted information from complex financial narratives will certainly help to make better use of financial statements. Here also, a revealing example relates to ESG data, for which the new techniques can support financial supervisors and investors in better assessing the associated risks, bridging the gap between qualitative sustainability disclosures and quantitative risk assessment exercises (BISIH (2024)).

Third, **innovation can help address the important quality issues often characterising financial statement data**. In fact, new scalable data management techniques and sophisticated modelling tools appear well suited for dealing with reports disclosed by a large number of firms or across diverse accounting frameworks. For instance, one project at the Bank Al-Maghrib aims to integrate advanced ML techniques to enhance the accuracy, scalability and efficiency of anomaly detection systems. By automatically identifying potential quality issues across large data sets, this approach enables human expertise to focus on the most problematic cases, improving both the efficiency and the reliability of data processing. Such a hybrid approach, where human expertise is augmented rather than replaced by computational methods, can also be valuable in financial supervision (Bell et al (2025)).

[15] One important related development relates to digital reporting, such as "marking up" specific data points within a corporate report, which can offer significant benefits for the processing and analysis of granular data. This calls in particular for expanding the use of AI in financial statements or incorporating it into ESG reporting.

4. Leveraging financial statement information to support official statistics and policymaking

The insights derived from corporate reports have proved to be particularly useful for public authorities in general. **This is particularly the case regarding the wide range of activities performed by central banks**, including the compilation of statistics, the conduct of economic analysis, the designing of policy actions and their impact monitoring.

First, **financial statement data can greatly help central banks in their role as producers of official statistics**. A prime example is climate change statistics, for which central banks and other statistical authorities have been actively developing new sets of indicators to better inform decision-making on the imminent risks posed by environmental hazards (UNECE (2025)). In particular, linking data from corporate reports with other sources, such as administrative records, geospatial information and credit registers, appears to be instrumental to accurately map physical and transition risks and estimate banks' exposure to the most vulnerable firms (Aurouet et al (2023)). More broadly, granular data, such as firm-level reports, can help developing new (mostly experimental) statistics, allowing to "zoom in" on specific developments without losing sight of the broader macro perspective (Israël and Tissot (2021)). Such enhanced "statistical agility" can play an important role during periods of uncertainty, such as financial, geopolitical or health crises (de Beer and Tissot (2020), IFC (2025b)).

Second, the **granularity of financial statement data can support a wide range of central banks' analytical tasks**, which often require in-depth understanding of economic and financial developments. For one, corporate reports can feed into various economic analyses[16] They can also offer rich insights for macroeconomic modelling, which is certainly an important input for the conduct of their policies. Another key advantage is that firm-level data can document the behavioural changes of firms, an information that is often needed to accurately assess economic agents' reactions to shocks and have a better grasp of underlying developments (IFC (2024a)). In addition, sophisticated techniques can increasingly be deployed to make better use of the wealth of granular data available and substantially improve analysis. For instance, a recent project at the Bank of Korea analysed how the identification of distressed firms can be enhanced by examining the financial statements of listed companies through multiple lenses. It shows that several alternative indicators, such as return on operating assets, can offer robust insights on corporate distress than conventional metrics, such as the "traditional" interest coverage ratio.

Third, **financial statement data are increasingly being used for designing central banks' policies** (IFC (2024a)). For example, in the area of financial stability, firm-level inputs can be key for enabling central banks to detect early warning signals and take timely preventive measures before vulnerabilities escalate into systemic risk. Illustrating this point, the global community of central banks and financial supervisors has set up the BIS-hosted International Data Hub to compile, store and analyse confidential credit, funding and balance sheet data from a set of large global financial

[16] See Davis (2024) for an example of those related to firm-level price dynamics during the Covid-19 pandemic.

institutions complemented by granular information on their exposures to key counterparties (including non-financial firms) across national financial systems, sectors and markets (Bese Goksu and Tissot (2018)).

Finally, financial statement data can enhance the **effectiveness of policy decisions, by helping to better monitor and evaluate their impacts**, not only on macroeconomic aggregates but also on the distribution of those aggregates. For instance, recent research at the Bank of France shows how corporate debt structures can influence monetary policy transmission mechanisms. This reflects the fact that a tightening in bond liquidity tends to increase interest rate spreads and reduce issuance activity, while higher policy rates typically lead more directly to lower business investment overall (Alder et al (2023)). Such a granular understanding of transmission channels can enable a more precise calibration of monetary interventions. Similarly, financial statement data can provide important insights for the implementation of effective fiscal and regulatory policies, as shown in a recent study conducted at the Vorarlberg University of Applied Sciences analysing the impact of late payment regulations on European firms. Another fiscal example relates to the way specific types of firms might respond differently to public direct transfers versus subsidised credit guarantees.

5. Enhancing the information provided by financial statements: the way forward

While financial statement data can provide essential insights, **important challenges are associated with their use, especially for policy support.** Addressing these challenges properly calls for pursuing efforts in three main areas, namely (i) data quality, (ii) data access and sharing and (iii) responsible innovation, and various action points can be considered in this context looking forward (Table 1).

Improving data quality

One key challenge posed by firm-level data is quality, especially in terms of both accuracy and comparability. The vast and growing universe of financial statement data does not always follow clear, rigorous and robust quality standards which are used, for example, for producing official statistical information. As a result, the integration of these data, especially new, "alternative indicators", with "more traditional" statistics requires further processing, management and checking (IFC (2025b)). Another issue relates to the scarce comparability and consistency of some types of corporate reports across jurisdictions and over time, for example sustainability reports. This is notably explained by the lack of globally harmonised standards and mandatory (public) disclosures.

Yet **improving the quality of corporate reports is often a prerequisite to developing meaningful analysis** in increasingly complex global markets, where policy needs require granular insights that are sufficiently harmonised across jurisdictions. An obvious reason is that more comparable reports can reduce instances of information asymmetry among market participants, fostering better investment decisions and facilitating effective policy monitoring.

Fortunately, **a number of solutions can further enhance the quality of information** contained in financial statement data. A first option is the use of innovative data techniques, such as big data analytics and AI, which can greatly support large-scale data processing and anomaly detection (see Table 1). A second action may be to engage external stakeholders to help companies better understand and prioritise certain issues, such as sustainability. A third solution involves adopting and adequately enforcing regulatory measures to support better harmonisation in terms of disclosure practices. A case in point relates to ESG indicators, where the rapid increase in data availability has not been matched by improvements in quality, standardisation and comparability across firms and reporting regimes – particularly regarding the type of assurance engagement conducted on sustainability disclosures, as underscored by the Central Bank of the Republic of Austria. Fortunately, recent initiatives such as the European CSRD are expected to improve these assurance levels and external auditing, enabling users to differentiate between levels of external verification when conducting analyses.[17]

Strengthening data accessibility and sharing

Obviously, tension exists between the need for analysing firm-level financial statement data that can be confidential and the practical limitations to accessing and sharing them. These barriers may prevent **making full use of the richness of the granular corporate information which often is not published**. Finding ways to tap into these data while also safeguarding their sensitivity is thus an essential prerequisite to unlocking their full potential, combining them with complementary data sources (IFC (2025b)).

A first step is to improve general data accessibility and timeliness. Public availability of financial statement data is often restricted to national publication portals or registers. Authorities could take concrete measures to address this issue, as seen with the introduction of the European Single Access Point initiative to broaden the accessibility of published corporate reports at the European level (IFC (2025e)). Other, non-published information collected for policy purposes (such as the one compiled by CBSOs) could also be made more widely available, for instance through stronger partnerships with academic researchers.[18] Relatedly, these efforts can be complemented by the use of innovative techniques, such as privacy-enhancing technologies, which enable sharing the data without disclosing sensitive information related to individual units (Araujo et al (2025)). Finally, the timeliness of financial statement data remains an issue. Limiting the reporting lags could be an option, such

[17] In order to simplify sustainability reporting requirements, the European Commission published in early 2025 a dedicated package of "Omnibus proposals". They aim to narrow entity scope, promote voluntary reporting and simplify a number of requirements in terms of data accessibility introduced by the CSRD. However, it remains to be seen which consequences the revised Directive and the respective European Sustainability Reporting Standards will have on future corporate data in the EU.

[18] Cf the initiatives pursued by INEXDA – the International Network for Exchanging Experience on Statistical Handling of Granular Data – comprising a group of central banks, national statistical offices and international organisations (IFC (2018)).

as in the case of the EU accounting directive allowing for publication delays only up to a year.

A second step is to further strengthen the global statistical infrastructure, especially in terms of adoption of global identifiers, interoperability and information standards for microdata (IFC (2023, 2025e)). Fortunately, a number of international initiatives are under way on these three fronts. Regarding the development of global and unique identifiers, key international regulators have been endorsing the Legal Entity Identifier (LEI) in the aftermath of the GFC as a global common code to uniquely identify legal entities involved in financial transactions (FSB (2024)).[19] Its widespread adoption worldwide represents a fundamental achievement to facilitate the linking of corporate reports with other financial data sets. Turning to reporting formats, interoperability among information standards can be instrumental to further integrate firm-level reports – often using eXtensible Business Reporting Language (XBRL) – with statistical data which rely on standards such as the Statistical Data and Metadata eXchange (SDMX) and the Data Documentation Initiative (DDI) (UNECE (2024a)). Concrete initiatives relate to the development of converters, such as the one between XBRL and SDMX to facilitate comparability and information-sharing, although these solutions might increase the overall complexity. Finally, the need for greater interoperability emphasises the importance of undertaking further efforts to standardise micro data at the international level – a key objective pursued under the third phase of the Data Gaps Initiative endorsed by the G20 (IMF et al (2023)). Related to this, SDMX has evolved to handle micro and geospatial data with its version 3.0, unlocking new possibilities to handle both disaggregated, firm-level records and aggregated statistical data consistently (Nikoloutsos and Sirello (2023)).

In a third step, the proliferation of data sources and techniques, combined with the increasing complexity of the financial system, calls for **further strengthening and structuring of the exchange of information between central banks, regulators, other public authorities and stakeholders**. Central banks' attention has in particular focused on expanding the sharing of micro-level data, for example by setting up remote execution systems[20] and on-site infrastructures to facilitate user access to granular information in a secure environment (IFC (2025c)). Further, coordination could take the form of data-sharing agreements between central banks and other public authorities within national statistical systems. A concrete and successful initiative in this regard has been the creation of Large Case Units in a number of jurisdictions. These operate as dedicated organisational units that track the complex activities of multinational enterprises by using a wide range of data sources, including corporate statements, tax reports and statistical surveys (CFMB (2024), UNECE (2024b)). In any case, central banks' experience with sharing granular information underscores the importance of carefully balancing benefits and risks, especially regarding the need to safeguard sensitive data – a fundamental aspect that calls for sound governance practices, robust IT security measures and professional independence.

[19] Global common identifiers feature several benefits for statistical purposes, especially to link data sources. Yet adoption may be voluntary, hampering their usefulness (CMFB (2023b), IFC (2025b)).

[20] These systems allow users to perform calculations, typically on confidential micro data sets, without directly accessing the underlying data.

Supporting responsible innovation

The **last important challenge concerns the use of AI and big data techniques** to support the use of financial statement data for various analytical and statistical activities. In this perspective, central banks' experience suggests that specific attention should be put on the implementation and governance of these innovative techniques (IFC (2025d)).

Regarding **implementation**, there are important deployment barriers often related to computational requirements required for dealing with the vast amount of financial statement data as well as to high initial and maintenance costs (IFC (2020c)). A growing issue is the adoption of cloud services, which can help contain infrastructure costs but may also expose to third-party dependencies and legal challenges, especially when the cloud providers are located in foreign jurisdictions. Another major challenge is related to skills shortages, in particular due to the relative scarcity of data scientists and engineers, in turn calling for upskilling strategies internally and strengthening the organisation's attractiveness externally.

Turning to **governance** aspects, innovation may also raise various questions, especially in terms of security, quality management, risks and ethical considerations when dealing with firm-level data. For example, one challenge while using LLMs to extract meaningful insights from textual documents is often the lack of adequate quality frameworks, constraining the detection and quantification of possible data, algorithmic or cultural biases. Generative AI solutions also pose new types of risks and threats, for example by contaminating high-quality data with unverified or unofficial information – an issue that can ultimately mislead investors, policymakers and the public at large.

Against this background, **maintaining the integrity and credibility of and trust in corporate disclosures and in turn in the use of financial statement data for official statistics and public policy is essential** (IFC (2025d)). Fortunately, central banks' long-standing expertise in data governance and management makes them well rounded to play the role of "data curators" in the broader data ecosystem, including by safeguarding and securing the quality of financial information (Križman and Tissot (2022)).

A roadmap for enhancing the use of financial statements for supporting central bank policies	Table 1

Key focus area	Suggested measures
Accessibility	▪ Leverage innovative data techniques (eg to automate data extraction from reports, structure unstructured text format through AI) and alternative sources of information ▪ Develop single access points (eg integrated publication portals or repositories) ▪ Enable search and filtering capabilities to make better use of financial statement databases ▪ Strengthen partnerships with academia and private sector
Data-sharing	▪ Support adequate data-sharing across interested stakeholders, including central banks, statistical offices and academia (eg through memoranda of understanding covering aspects such as confidentiality, quality and security) ▪ Promote the use of global unique identifiers to unequivocally identify entities (eg LEI) ▪ Establish research data centres or secure online environments to access sensitive data, including by researchers ▪ Develop better access to administrative sources, including without appropriate legal gateways ▪ Ensure proper data licensing and compliance (eg copyright)
Data quality	▪ Increase comparability through adequate harmonisation of reporting standards and disclosure requirements ▪ Leverage new techniques to support large-scale editing processes (ie anomaly detection) ▪ Deploy data quality management approaches (eg cross-checking between databases/institutions) to improve data completeness and accuracy ▪ Promote consistent data formats and standards interoperability (eg XBRL-SDMX converters) ▪ Establish ESG assurance levels for auditors and materiality assessment exercises
Transparency	▪ Improve existing databases (eg uncertainty measures and ratio definitions) ▪ Increase transparency in the use of new data sources and AI models

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