### Deloitte.

**Embracing the power of digital corporate reporting** A mandate for change

2023



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# Executive summary

87 – The average number of pages in an annual report.

**8,000** – The number of errors in documents lodged with ASIC since 2019.

0 – The number of voluntary digital reports submitted to ASIC since 2010.

Every year, businesses spend hundreds of hours on reporting: planning, data gathering, fact checking, writing, editing, designing, reviewing, approving, proofing, and error fixing. It's a mammoth task not only for the people producing them, but also for the investors, auditors and regulators sifting through countless pages for key information.

It's an age-old business problem – but like many problems today, technology is a key part of the answer. In this case it's digital reporting, which most of the world's advanced economies have mandated to cut red tape, improve efficiency and reduce errors and duplications. But Australia is yet to join the party, limiting our ability to compete internationally and keep our businesses visible to overseas investors. Digital reporting remains voluntary, and ASIC is yet to see it used.

We are seeing rising expectations for organisations to lead on our nation's defining issues such as climate change and social impact, and not just to share accurate, transparent and timely financial data. Surging demand for ESG disclosures is adding pressure to an already strained system. It's no surprise, therefore, that the burden of reporting is intensifying. And with a 2019 Senate inquiry recommending the Australian Government make digital financial reporting standard practice, it's clear change is now essential.

In preparation for this report, we have collaborated with our clients, regulators, and data and technology providers to canvass their views on why digital company reporting hasn't taken hold in Australia.

Deloitte Access Economics' (DAE) modelling finds that by 2030, the economy would be roughly \$7.7 billion larger per year if all large businesses adopted digital financial reporting. If digital reporting is extended to sustainability and climate disclosures, the benefit to the economy could be even greater. To realise these benefits, mass participation is crucial. DAE's research shows it takes several years for benefits to outweigh costs when businesses act alone, while the economy-wide impact will be profound. With voluntary participation proving ineffective, policy change is a must.

There is little doubt that the shift to digital reporting will improve reporting transparency, accuracy and efficiency, so it's our hope that this report sparks a constructive debate that will make the case for this transition. This is essential structural reform – one that will drive investment and strengthen trust by making Australian companies more transparent and accessible to investors, the market, and the community.

step on this journey.





**Adam Powick** CEO Deloitte Australia

### It's time for Australia to embrace digital reporting and we now need to take the first meaningful



floorton

Joanne Gorton Managing Partner Audit & Assurance, Deloitte Australia

### Our recommendations

Based on our research and other evidence provided, we make the following recommendations to the Australian Government.

### Follow the lead of Australia's major economic partners by mandating digital financial reporting

A 2019 senate inquiry recommended the Australian Government take appropriate action to make digital financial reporting standard practice in Australia. Our evidence shows that while the benefits of individual action are modest, the benefits of economy-wide action are compelling.

### **Consult industry on implementation**

This should occur over a reasonable period (such as one year) on key matters like the size-of-business threshold, the types of businesses to include, and the timeframe for implementation. Our view is that it should start with large businesses and be introduced over the next three to five years to ultimately capture entities reporting under the Corporations Act (such as those with more than 100 employees, assets of \$25 million or \$50 million in revenue).

### Establish a coordinating body for a smooth transition

This body should include representatives from business groups, technology providers, regulators and accounting professional associations to ensure digital reporting is implemented effectively.

The Australian Government has officially endorsed the implementation of the International Sustainability Standards Board (ISSB) standards, starting with mandatory climate-related financial disclosures in Australia from 2025. Recognising the interlinkage and mutual reinforcement between financial reporting and climate reporting, it is recommended that the government designs ISSB reporting to be digital as part of the transition process. This action will help facilitate an effective, unified digital reporting system driving consistency, accuracy and accessibility of decision input data to the broader financial ecosystem and unlock significant benefits to the Australian economy as a whole. Additionally, incorporating flexibility into the design of digital reporting requirements can encourage business adoption and ultimately reduce transition costs.

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#### **Design ISSB standards to be digital-ready** as part of the transition process

Australia faces a sustained decline in productivity growth. Could digital reporting be the antidote?

According to the International Monetary Fund, investing in information and communication technologies should be a priority if Australia is to reignite productivity growth.<sup>1</sup> Here, we consider whether digital reporting could be our economy's missing ingredient.

Digital reporting is the filing of corporate reports using eXtensible Business Reporting Language (XBRL) and a common tagging taxonomy, such as the International Financial Reporting Standards (IFRS) Accounting Taxonomy.<sup>2</sup>

Through policy, a transition to this technology will bring Australia in line with international best practice, create high-value jobs and improve the quality of reported information. It will also make the financial markets more efficient, giving investors better access to information. Critically, this lowers the cost of capital and stimulates local and foreign investment.

Australia's current reporting practices are a major time and resource burden. From financial announcements to climate and corporate governance disclosures, businesses are required to disclose more information than ever before. "Embracing digital reporting is an imperative for Australia. It promises data consistency, high quality analysis and bridges the gap between antiquated paper-based systems to our increasingly data-driven world. By aligning with global leaders like the UK, US, Europe, and Japan, we can democratise our financial reporting, bolster productivity, enhance transparency, and fuel economic innovation." Slav Tabachnik

**Embracing the power of digital corporate reporting:** A mandate for change

Partner, Analytic Solutions Deloitte Australia

The average number of announcements made by companies listed on the Australian Stock Exchange (ASX) has risen 75% – from 36 in 2009 to 63 in 2022.<sup>3</sup> Investors researching these businesses must digest annual reports averaging 87 pages, with ASX100 company reports often surpassing 200 pages.<sup>4</sup> As we explore later in this report, preparing annual reports in paper-based formats is more prone to error than XBRL<sup>5</sup>. Since 2019, there have been **more than 8,000 error corrections** made to documents lodged with ASIC, representing **1.3% of all documents lodged**<sup>6</sup>. Most corrections are made by companies with revenues between \$10 million and \$100 million, and those that do are **7.5 times more likely** than the average company to post a correction the following year.<sup>7</sup> It's important to note these figures rely on errors being detected and reported – the actual total is expected to be even higher.

Digital reporting will alleviate the burden on businesses and report users, helping them embrace automation and technology to be more efficient, transparent and consistent.



### 1.1 What is digital reporting?

Traditionally, reports have been available in various formats that cannot be analysed at scale. Digital reporting converts these to a machine-readable format by assigning tags to information, which allows digital analysis to be automated across large data samples. It also provides new ways to record, measure and verify reports.

A digital taxonomy (or digital dictionary) provides defined tags needed to digitalise disclosures using XBRL. A common taxonomy is needed to make digitalised information globally comparable.

For example, a 'profitloss' tag allows a computer to know that company A's *profit for the year*, Company B's *net surplus* and Company C's *income* are comparable profit or loss disclosures despite having different descriptions. Equally, it allows a computer to know that Company A's *income* that represents revenue is not comparable to Company's C *income* that represents profit or loss. The taxonomy most applicable for Australia is undoubtedly the IFRS Accounting Taxonomy given the standards adopted by the Australian Accounting Standards Board are consistent with IFRS Accounting Standards.<sup>8</sup> The Australian Securities and Investment Commission (ASIC) adopts the IFRS Accounting Taxonomy without changes for the voluntary lodgement of digital financial reports. There is a separate extension taxonomy for any Australiaspecific disclosure requirements.

Though digital reporting mandates typically focus on financial reporting, the technology can also be used to consolidate environmental, social and governance (ESG) data. This is increasingly relevant as the Australian Government is mandating the phasing in of ISSB climate-related financial disclosures by 2025.

### XBRL

XBRL (eXtensible Business Reporting Language) is the international standard technology for digital reporting. Like HTML or Wi-Fi, its open standard means it can be adopted for free by anyone and for any software.

Often referred to as 'bar codes for reporting', it connects unique tags to pieces of information like financials, numbers or narrative disclosures. This means similar pieces of information across a large data set can be grouped together and made machine-readable.<sup>9</sup>

In some jurisdictions, **iXBRL** (inline XBRL) is the preferred technology for creating digital reports. iXBRL embeds invisible XBRL tags inside web pages, making the document readable by both humans and machines.

iXBRL creates a 'single source of truth' and is being used for corporate disclosures by public companies in Europe, the US, Japan and other major economies.

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### 1.2 How we stack up: Digital reporting in Australia and overseas

The benefits of digital financial reporting are well documented. A 2019 joint parliamentary inquiry recommended the Australian Government make it standard practice,<sup>10</sup> arguing it's likely to be a significant driver of technology-driven changes in auditing and analysis. With digital reporting, information can be readily and electronically extracted for analysis, comparison and risk assessment.<sup>11</sup>

In June 2021, ASIC held a webinar on international developments in digital reporting and opportunities for Australia. The webinar includes presenters from the US SEC, Morningstar (a data aggregator), the International Accounting Standards Board (IASB), Westpac, and the University of Technology Sydney.<sup>12</sup>

In August 2022, the Australian Accounting Standards Board (AASB) hosted the Dialogue Series, where a panel of experts highlighted the value of digital financial reporting for the Australian economy and the dangers of continuing to fall behind in accounting standards.<sup>13</sup>

Research by the University of Adelaide, establishes the policy challenges and benefits of digital reporting in Australia by analysing evidence from other G20 jurisdictions.<sup>14</sup> The research argues digitising corporate information offers potentially significant benefits for key stakeholders across the supply chain.

The Australian Treasury published a consultation paper on climate-related financial disclosure in December 2022, which discussed sustainability risk disclosures.<sup>15</sup> It highlighted the opportunity to embed digital reporting practices in these disclosures from the outset and how this would benefit investors, auditors, and regulators who use this data for analysis, comparison, and risk assessment.

Despite this support, digital reporting is yet to be mandated in Australia.

ASIC

Around the world, digital reporting practices are well established and many developed economies have capitalised on the benefits of a common digital reporting language (Figure 1.1). From as early as 2009, countries have mandated digital financial reporting for publicly listed companies or those with more than 500 employees. These firms are required to submit their tax files and financial statements in either XBRL or iXBRL, depending on the jurisdiction. Some countries make data from XBRL filings available online to data analysts, companies, investors and individuals.

### "While companies have been able to voluntarily lodge digital financial reports with ASIC since 2010, no digital financial reports have been lodged to date. Consideration on how to best encourage the adoption of digital financial reporting may be warranted."<sup>16</sup>



### **United States:** The first to mandate

Since 1996, all reporting companies in the US have been required to submit financial statements digitally. In 2005, the US Securities and Exchange Commission (SEC) introduced a voluntary XBRL filing system for corporate financial statements. This was eventually mandated in 2009 for all listed companies, making the US the first country to do so. The mandate was amended in 2018, requiring companies to submit statements using iXBRL, the human-readable extension of XBRL.<sup>17</sup>

Digital financial reports are submitted to the SEC through the Electronic Data Gathering, Analysis and Retrieval system (EDGAR), a central repository that stores data for investors, auditors and individuals to access free of charge.

In June 2023, the SEC released its first Semi-Annual Report to Congress Regarding Public and Internal Use of Machine-Readable Data for Corporate Disclosures showing strong evidence that the availability of machine-readable data has been beneficial to report issuers, investors and the public.

### **European Union:** The first ESG mandate

The European Securities and Markets Authority mandated digital financial reporting in 2020 for all EU-listed firms. As the EU is yet to finalise a central repository, firms must file statements through their respective country's officially appointed mechanism. However, all countries must use the same reporting taxonomy (which is aligned with the IFRS Accounting Taxonomy).

In November 2022, the EU Corporate Sustainability Reporting Directive (CSRD) was passed. The CSRD has become effective since early 2023 as the EU's digital ESG reporting standard, applying to all companies with:

- More than 250 employees
- More than €40 million in annual revenue
- More than €20 million in total assets
- Publicly listed equities and more than 10 employees or €20 million revenue.

These companies will need to submit annual digital reports detailing how sustainability influences them and how they're impacting the environment – making CSRD the first digital ESG mandate in the world.



**Figure 1.1** Jurisdictions with digital financial reporting initiatives

Voluntary Mandated

Embracing the power of digital corporate reporting: A mandate for change



John O'Mahony

Embracing the power of digital corporate reporting: A mandate for change

### "Digital financial reporting is a significant economic reform opportunity for Australia. From the perspective of an individual business, the benefit of digital reporting will only be realised in the medium to long term. But if one considers the economy-wide impacts of digital reporting, the calculus changes considerably."

Partner, Deloitte Access Economics

### 2.1 Dynamic data: The two-way information conveyor belt

The corporate reporting stakeholder chain ranges from businesses as report producers at one end, to auditors, regulators and investors as report users at the other. With the current reporting system, information moves one way along the chain. A key benefit of XBRL is the use of digital information tagging that communicates accessible, high-quality information to different stakeholder systems. This allows information to be transmitted efficiently with high consistency in both directions – creating a two-way information conveyor belt.

For example, if an organisation files a report with a regulator, the regulator's software then checks for compliance, flags errors or inconsistencies and feeds them back to the organisation's system. The report can then be updated and resubmitted, and stakeholders along the chain will automatically receive updated information.

If Australia mandates digital reporting, we expect to see broad, long-term economic benefits. But what does this mean for stakeholders across the reporting ecosystem? What are the costs and benefits?

#### Figure 2.1

Digital reporting as a conveyor of information

#### Reports available in paper, PDF or HTML formats



Source: Deloitte Access Economics

**Business Analysis** Delayed access to data due to translation and

Researches Limited research opportunities

Citizen scientists Analysis through PDF annual reports and other publicly available data

### **Business Analysis**

Instantly compare live data across businesses for more efficient decision making

#### Researches

Use digital data for enhanced academic research opportunities

#### **Citizen scientists**

Access to high quality data for analysis

#### Software providers

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### 2.2 Report preparers and support services

On the upstream of the information conveyor-belt are information producers, such as businesses who are responsible for producing company reports and professional service providers who help business in producing reports.

As with any digital transformation, there will be costs – particularly to procure tagging software in the set-up phase. These costs will be achievable for most listed companies and the majority will be incurred upfront. Businesses are unlikely to see benefits in the short term, but should see a substantial boost in productivity over time.

#### The costs

When a digital reporting mandate begins, businesses that must lodge digital reports will face an average cost of around **\$76,000** to participate. Beyond the first year, the incremental cost to report digitally is expected to be approximately **\$25,000** per year.<sup>18</sup> Preparing financial information for digital reporting is among the most substantial costs for businesses.
It's expected to be significantly higher when preparing their first digital report to account for software licensing, training for accounting staff and XBRL tagging of all information.
These costs will reduce each year, as fewer staff will need training and only new additions to reports will require tagging.

When the SEC mandated digital reporting in the US, it estimated the labour hours needed for businesses to file reports would reduce by 86% after the first year, from 125 hours in the first year to 17 hours from the second years onwards.<sup>19</sup>

Businesses may need to procure or upgrade to XBRLcompatible **reporting software** to convert existing reports to digital format; they may also face costs in **filing** digital reports and engaging **intermediaries** and **assurance providers.** These costs will vary by business, depending on their existing software and how they engage with third parties. Over time, software costs are expected to be marginal as XBRL tagging becomes the market standard.

### The benefits

After a teething phase, businesses will likely see a range of productivity gains.

Digital reporting would **reduce manual processes** such as data checking, proofreading, footnoting and consolidating as data is created once then published across multiple sources. It's estimated these manual processes make up between 20 and 30 percent of report preparation, which can take upwards of 845 hours for quarterly reports alone.<sup>20,21</sup> If the average business has six accountants who spend 50% of their role in report preparation, productivity improvements could see businesses save more than \$89,000 per year.

It would also result in **fewer errors** in the long term as businesses become more familiar with digital reporting.<sup>22</sup> Though more errors are expected in the short term, these will decrease over time as the risk of human error and the input of outdated data is reduced by automation.<sup>23</sup> Digital reporting also mitigates errors caused by similar, but not identical disclosures being incorrectly identified as equivalent or comparable. XBRL, when paired with a common tagging taxonomy, provides a common digital language which is consistent across jurisdictions.

These productivity gains won't be immediate: it takes time to learn new processes and implement them efficiently. For businesses participating voluntarily, the net benefit only occurs in the long term (after 2030).



### **Unlocking Australia's investment landscape**

GPT Group is a real estate investment trust with a large portfolio of properties in Australia. They're digital reporting ready and believe it's the key to unlocking the country's investment potential.

"Without digital reporting, Australia's investment landscape is practically invisible to the rest of the world on the digital 'map'. It takes a very diligent analyst to extract Australian company information."

### Rebekah Morgan

Head of Finance, GPT Group

GPT Group doesn't currently report digitally, but it's aware of the benefits and upfront costs. It has recently invested in upgrading financial reporting software, motivated by efficiency advantages and error reduction, and is supportive and capable of the transition. It's investigated the required resources for a digital reporting mandate – particularly in the initial years – and sets out the main costs and resources required as follows:

- The procurement of digital financial reporting system with tagging capability (this cost would vary among businesses, depending on the software it already has)
- Initial staff resources required to learn software and complete initial tagging of financial reports
- Ongoing staff resources required to maintain digital financial reports where new line items need to be tagged and added to statements.

GPT Group feels the ongoing maintenance costs and resourcing required for digital reporting would be minimal. For GPT the main benefits are improved accessibility of its data for investors and the potential increase in capital the business can attract. It believes digital reporting would create broader foreign investment benefits for Australia if a central repository is created where foreign investors can easily access Australian companies' data. This would unlock the 'full value' of digital reporting.



### 2.3 Information distributors

Information distributors collate company financial and ESG information and distribute it to the market via a platform or through a paid service. Examples include the Australian Securities Exchange (ASX), Bloomberg, Refintiv Eikon.

Information distributors don't just aggregate content: they add value by normalising, standardising and analysing data to enhance its usability. Many investors rely on this in-depth market information to inform their investment decisions. There have been concerns digital reporting will reduce demand for their services, but reviews in countries where it's mandated show this hasn't been the case.<sup>24</sup>

### The benefits

Distributors could leverage digital reporting to **automate data collection,** replacing time-consuming manual processes that are more prone to human error.<sup>25</sup> This would also help with **reviewing and standardising information,** allowing them to improve the quality of the intelligence they provide and invest resources in improving data usability. But these benefits aren't guaranteed. A review of the impact of mandated digital reporting in the US revealed that in the absence of quality assurance, the reliability and consistency of the raw data remained an ongoing concern.<sup>26</sup> Consequently, information distributors were more comfortable with their own data quality processes and end users are less inclined to utilise data directly from the SEC.

### 2.4 Report users

Digital reporting data is used by a variety of stakeholders for many purposes. Report users analyse digital reports to inform decision making, to undertake audit and assurance processes, and to increase the stock of knowledge. Data uses range from investors, auditors, regulators, researches and businesses.

Digital reporting will make data more organised, transparent, comparable and accessible, bringing benefits to a diverse group of stakeholders.

#### The benefits More efficient a

Users will be able to automatically extract specific financial data from large numbers of businesses that use digital reporting, allowing speedier, more accurate and targeted analysis.

#### More comparable data

XBRL paired with a common tagging taxonomy makes data more consistent and therefore easier to compare,<sup>27</sup> enhancing analytical capabilities. **Researchers, investors, regulators** and **businesses** will benefit most from these analytical opportunities as greater data accuracy and aggregation capability enable more informed decisions.<sup>28</sup>

### Savings on information processing

Data users will spend less time manually extracting and comparing data, significantly reducing the costs of information processing.

### More efficient and accurate data extraction



#### Improved capital market efficiency

Research examining the impact of XBRL reporting in the US suggests the adoption of XBRL has the potential to improve capital market efficiency.<sup>29</sup> Additionally, by improving financial reporting quality, digital reporting can potentially reduce the cost of equity capital and enhance stock liquidity.<sup>30,31</sup> A reduced cost of capital has the potential to increase investment overall.

#### Attracting foreign investment

There's evidence countries using digital reporting have benefited from a boost in foreign direct investment.<sup>32,33,34</sup> XBRL, when paired with a common tagging taxonomy, provides the means for data to be intelligible globally. This improves data accessibility and transparency for investors in non-English speaking countries and increases their ability to analyse data and make risk assessments without potential translation error.

### **Benefits for regulators**

Through automatic data extraction, regulators will be able to analyse trends across businesses and identify potential outlying information. They'll also be able to detect errors through a built-in data validation platform when tagged items do not consolidate with the expected value. This means the role of the regulator can shift to a more sophisticated monitoring of businesses' financial data. In the US, tax avoidance reduced following the introduction of the XBRL mandate.<sup>35</sup>

### Benefits for auditors

Digital reporting makes it easier for auditors to validate information, helping them divert focus from time-consuming jobs like data gathering and research. Auditors could spend more time analysing the accuracy and credibility of financial statements,<sup>36</sup> which could improve fraud detection or identification of compliance issues.<sup>37</sup> Evidence from the US, Japan and China suggests digital reporting can improve the productivity of audit processes.<sup>38,39</sup>

### 2.5 The bigger picture

For individual stakeholders – particularly report preparers – it's difficult to justify a shift to digital reporting as a standalone IT project. The timing and distribution of costs and benefits also varies, helping explain why voluntary reporting is less attractive than other digital transformations and has seen low uptake in Australia.

But if one considers the economy-wide impacts of digital reporting if there is widespread participation, the calculus changes considerably. A range of stakeholders stand to benefit from a mandate: notably, investors can quickly analyse large volumes of high-quality data, potentially lowering the cost of equity capital and increasing local and foreign investment. This benefit is shared by the investors themselves along with businesses, auditors, regulators and workers.



"The only source of hesitancy I have seen so far has been from some in the business community, who are responsible for preparing reports. It is important to realise that digital reporting offers some significant benefits for preparers as well."

#### **Keith Kendall**

Chair, Australian Accounting Standards Board

To capture the economy-wide benefits of digital reporting, we used a computable general equilibrium (CGE) approach. More specifically, we applied Deloitte Access Economics' Regional General Equilibrium Model (DAE-RGEM) to estimate the economic impact relative to the economy's usual growth without a mandate. This was modelled through three main mechanisms:

- Expenditure resulting from a mandate
- **Productivity gains** from more efficient reporting and regulation
- Lower cost of equity capital from cheaper search and data processing for investors.

Appendix A contains a comprehensive description of the data inputs and assumptions used to conduct the CGE modelling.

The CGE model captured the costs this transition will impose on report preparers, regulators and auditors. These costs are expected to be the most significant, but it's likely we haven't captured them all. Given businesses may divert resources while staff adjust to digital reporting, and see lower output as a result, we treated expenditure as a mechanism that lowered labour productivity.

The model also captured the productivity benefits for these stakeholders, which are expected to phase in over a five-year period from the introduction of the mandate.

Our modelling shows a short-term reduction in economic output followed by an average annual net GDP gain of \$7.7 billion from 2030 – a \$40 billion total gain over 20 years.



Modelling by Deloitte Access Economics estimates that Australia's economy would be AU\$7.7 billion larger per year on average from 2030 onwards if digital financial reporting was adopted by all large businesses.





A digital financial reporting mandate is expected to trigger short term reductions in economic output while the industry adjusts to new requirements. From 2030 onwards, the average annual net gain to GDP is approximately AU\$7.7 billion.

After an initial period of adjustment when a digital financial reporting mandate is first introduced, digital reporting is expected to support a sustainable increase in jobs. From 2030 onwards, the average annual **jobs supported** by digital financial reporting are estimated to **exceed** 14,000 in full-time equivalent terms.

Source: Deloitte Access Economics



\*The reduced cost of capital is shared across the economy, including business and investors.

The benefits of a digital financial reporting mandate are largely stimulated from increased investment, followed by the benefits to report preparers.

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"The introduction of mandatory climate reporting in Australia has the potential to act as a catalyst to propel widespread adoption of digital reporting practices. By leveraging technology, organisations can efficiently collect, analyse, and disseminate environmental data. Digitisation of data collection, storage and analysis will play a critical role in supporting Australia's decarbonisation journey."

Jacquie Fegent-McGeachie Partner, Deloitte Climate & Sustainability

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### 3.1 Why is ESG reporting so important?

In recent years, consumers and investors have expected greater transparency around sustainability and social responsibility, forcing businesses to sharpen their focus in this space.

From 2012 to 2022, there was a **16-fold increase in sustainability reports** on the ASX and a 42-fold increase on the ASX-100.<sup>40</sup> Given the number of ESG-related announcements on the ASX **increased by 103%** between 2020 and 2021 alone,<sup>41</sup> this momentum is hardly slowing.

As sustainability and social responsibility have become a front-of-mind issue for consumers, **ESG risks are becoming business risks.** Effective disclosures help businesses and investors better understand these risks and mitigate them in their operations, emissions or supply chain. This equips businesses to identify new opportunities, uplift and protect their value, and lower costs by finding ways to be more efficient. Robust ESG reporting can also help companies to build trust and loyalty. It could even attract the best talent, with more than 67% of potential employees being more willing to apply for positions from companies they consider environmentally sustainable.<sup>42</sup>

The benefits of ESG reporting extend to **environmental and social outcomes,** with transparency and benchmarking encouraging progress towards environmental, social and governance targets.

### 3.2 The state of play: ESG at home and around the world

ESG reporting is gaining global momentum and becoming an expected disclosure in the business environment. Many developed economies such as Europe, UK, Australia and New Zealand have moved quickly to introduce local mandatory ESG reporting frameworks. The release of the ISSB standards in June 2023 signifies the establishment of a comprehensive, consistent and comparable global baseline for sustainability-related disclosures **(Figure 3.1)**. In Australia, Treasury have proposed phasing in mandatory climate reporting from 2025. The ISSB are commencing projects on broader ESG issues such as biodiversity, human capital and human rights - whether these become part of the mandated reporting landscape in Australia remains to be seen. Regardless of the legislative position, investors and broader stakeholders are increasingly demanding business to report the impact of broader sustainability issues on a voluntary basis.

Voluntary ESG reporting can have considerable costs and challenges. There's a lack of clarity for businesses over the metrics competitors are using to report on environmental performance, making objective comparison difficult. They also face uncertainty over how these reporting requirements will change in the future.

Establishing a clear and consistent ESG reporting framework in Australia will enhance transparency and comparability to drive real-world outcomes.





**Embracing the power of digital corporate reporting:** A mandate for change

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### The Treasury Wine Estates Sustainability Report

Treasury Wine Estates (TWE) is one of the world's largest wine companies. Listed on the ASX, it employs 2,500 people and cultivates around 13,000 hectares of vineyards in some of the world's most renowned winemaking regions including Australia's Barossa Valley and Yarra Valley, France's Bordeaux, New Zealand's Marlborough and Napa Valley in the US. Brands in the TWE portfolio include Penfolds, 19 Crimes, Wolf Blass, Squealing Pig and Wynns, and the company distributes its products in more than 70 countries.

TWE has seen an increased focus on its sustainability agenda and reporting in recent years, particularly from employees, investors, and customers. TWE's main drivers for sustainability reporting include being an industry thought leader in ESG disclosure, responding to stakeholder expectations, and enhancing visibility of its sustainability commitments and progress. The company publishes an Annual Report covering financial, strategic and governance matters, as well as a standalone Annual Sustainability Report. Both are released using standard PDF format.

TWE's Sustainability Report is compiled in-house by a small number of full-time sustainability-dedicated employees, with sustainability efforts embedded across all areas of the business by many employees as part of their day-to-day activities and operations. The most significant costs involved in sustainability reporting and ESG disclosure include gathering and collating data, assurance, and the final report design.

Reporting and setting public sustainability commitments has had a significant impact on operational activity, and TWE supports further action that increases transparency and drives corporate action. However, there are challenges with existing ESG reporting practices that hinder businesses in comparing performance consistently and fairly.

TWE also highlighted challenges associated with multiple ESG reporting standards. Having a standardised set of requirements would make it clear to businesses what they need to report on, and more importantly, help consumers understand key material areas and true sustainability outcomes. Quality ESG reporting standards and guidance could also simplify data collection and reduce costs.

As a global company that needs to meet regulations in every country it operates in, coordinating and harmonising regulations and requirements is important. Digitising ESG reporting would integrate and harmonise disparate, but related, standards and frameworks. An end-to-end solution would create a more streamlined, accurate and automated process.

"Sustainability performance and ESG metrics are inconsistently applied and reported across businesses. That makes it challenging to benchmark performance in a consistent way, and truly understand the impact and breadth of outcomes achieved. Mandating ESG reporting standards that integrate robust, verifiable and comparable data would make businesses more accountable. This added transparency and comparability would enhance the reporting credibility, ultimately shaping decision-making and improving business performance over time."

#### Kirsten Gray

Chief Sustainability and External Affairs Officer, Treasury Wine Estates

### **3.3 Easing the burden with digital reporting**

As a consistent standard for ESG reporting evolves globally, the conversation is turning to digital. The EU is currently leading the transition, having introduced the first digital ESG directive in January 2023.<sup>43</sup> Australia has an opportunity to influence and change boundaries in this space, particularly with the introduction of mandatory climate-related financial disclosure in Australia. This should act as a catalyst for change as we develop our own ESG reporting mandate. Only once we adopt a single, consolidated framework for ESG reporting should we consider a mandate on digital ESG reporting.

Though ESG is an emerging area of digital reporting, we know it's already standard practice for financial data in many countries. Mandatory ESG reporting significantly expands the volume of data that entities will need to collect and analyse prior to communicating to the market – and so the time for digital reporting is now to support this transition. For example, digitally tagging scope 3 emissions data and storing it in a central repository would be of great benefit to organisations across the value chain as this data must be shared by suppliers in order for entities to accurately report on their scope 3 emissions.

This would also allow for regulators and policy makers to utilise scope 3 emissions data for measuring Australia's decarbonisation progress – and in the spirit of easing the burden and improving information flows – without establishing a separate data gathering and consolidation exercise.

One of the goals of the new ISSB standards is to enhance the connectivity between ESG and financial information. Digital reporting will play a critical role in supporting this connectivity by making cross-comparisons between ESG and financial information easier and more streamlined. It can aid report preparers in validating their ESG and financial reports are consistent prior to filing.

In fact, the complex nature of ESG means there's great potential for efficiency gain if data collection, validation, distribution and analysis are streamlined and automated. A shift to digital reporting would make ESG data more reliable and transparent, not to mention easier on businesses.

### 3.4 Who reaps the benefits?

Today, **report preparers** face a complicated process of designing metrics, collecting data and consolidating findings in a document format. Digital ESG reporting using XBRL and a common tagging taxonomy will help information be collected, traced and consolidated. Tracing data will be especially important for the reporting of scope 3 emissions, as they occur further down the supply chain.

For **information distributors**, the benefits of digitising ESG disclosures would be much the same as financial reports. They would no longer need to extract data with risky manual processes; instead, the information could be automatically and accurately updated in databases before being distributed to consumers.

Automatically extracting and collecting data – in a consistent, standardised way – gives **businesses** better analytical capabilities. It's the same for **investors**, who can compare the performance of businesses, understand and trust ESG data and overcome language barriers. We've seen digital financial reporting can make capital allocation more efficient; as ESG factors increasingly drive investor decisions, it's reasonable to expect similar benefits.



Similarly, digital ESG reporting will simplify the monitoring and compliance burden for regulators as digital ESG data can be automatically extracted, allowing for greater benchmarking and analysis of anomalies.

This isn't just about improving productivity. By giving businesses and investors greater visibility of other firms' performance, and the ability to benchmark, digital ESG reporting may **drive a more sustainable** business environment in Australia. Consistency across reporting channels will create a single source of truth that allows information to be controlled, reviewed and assured. With more rigorous ESG data, we could better monitor progress towards net zero emissions targets, make informed procurement decisions to uphold higher environmental and social standards across the supply chain, and assess investments to create sustainable value.

"There is significant focus internationally on rapidly digitising sustainability reporting. This is partly driven by the introduction of green and transition finance: companies that are not disclosing climate data in a way that can be easily and reliably consumed will be at a distinct disadvantage."

John Turner

CEO, XBRL

**David Bassett IFRS** Foundation



### "With an increasing amount of information becoming available to investors, the challenge lies in accessing and analysing this data efficiently. Digital reporting is a large part of the solution"

**Joanne Gorton** Managing Partner Audit & Assurance Deloitte Australia

Embracing the power of digital corporate reporting: A mandate for change

"It's time for Australia to accelerate our transition to digital reporting. This will help us keep pace with our trading partners, such as the US, UK, Europe and Japan. They have mandated digital corporate reporting and have already seen the benefits we can see those same benefits too."

### 4.1 Reaching critical mass

While the potential benefits of a digital reporting mandate are significant, they rely on widespread uptake. As such, these benefits resemble a **network externality** - in other words, they will peak once adopted by the critical mass in Australia.

So how can Australia obtain critical mass? Digital financial reporting has been voluntary for over a decade, yet very few businesses are participating and none have submitted in this format to ASIC.<sup>44</sup> Those that do report digitally are mostly subsidiaries of companies exposed to mandates in the US and elsewhere around the world. For other businesses, it's viewed as an onerous task that doesn't currently offer significant benefits in Australia's financial markets.

History has shown a voluntary system doesn't encourage the participation needed to reach critical mass. **To fully** realise the benefits of digital reporting, Australia must mandate it.

"Digital reporting can only be a game changer if it's mandated for large public and private entities. For it to be meaningful, there needs to be a reasonable volume of data that enables more comparisons to be made."

#### **Kirsten Gray**

Chief Sustainability and External Affairs Officer, Treasury Wine Estates

"The time for dithering has long passed, Australia must adopt a clear mandate for digital reporting in our larger listed companies at the very least. Failing to act risks being left behind the rest of the world at a time when every dollar of investment into our economy counts."

#### **Amir Ghandar FCA**

Reporting and Assurance Leader, Chartered Accountants Australia and New Zealand



### 4.2 Taking action together

Only coordinated and systemic changes at the whole-of-society level will see the benefits of digital reporting outweigh costs.<sup>45</sup>

The best outcomes for reporting businesses and data users will come from **coordinated support** from technology providers, regulators and accreditation and advocacy bodies, with feedback from reporting businesses along the way. These stakeholders are the critical enablers in Australia's digital reporting environment.

"Digital reporting is a supply chain activity with many players involved. Highly successful implementation happens when there's collaboration throughout the entire ecosystem: from corporate reporting teams, to the audit profession, design agencies, XBRL software vendors, the regulators, the data providers and on to users of all kinds."

John Turner

CEO, XBRL

Businesses will need to invest resources to produce digital reports, but they need the right technology to do so efficiently. Technology providers will need to understand the needs of businesses to develop user-friendly software that's compatible with XBRL tagging and meets regulatory requirements. A mandate would give technology providers a market opportunity to step in and fill gaps in the digital reporting supply chain.

the transition."

**Andrew Hay** 

Thomson Reuters

**Regulators** will play a major role in implementing a digital reporting mandate successfully, sustainably and in a way that's manageable for stakeholders. They will set the tone on the timing of a mandate, outline the reporting requirements, assess the adequacy of a standardised taxonomy for Australian businesses, and share information and resources. With a detailed consultation and change management process, regulators can set reasonable expectations for report preparers and other affected stakeholders.

### "A digital reporting mandate needs to be made easy for report preparers. Assisting software providers to onboard businesses and provide education and awareness sessions can help

### Head of Proposition and Software,



"Government needs to involve industry in the development of any digital reporting regime. Done right, this involves new thinking, new systems and new approaches to reporting. Corporate reporting is important, so change takes time and care."

### John Turner

CEO, XBRL

"A mandate needs to have consultation and timing, and this needs to happen several years in advance of a mandate."

### **Andrew Hay**

Head of Proposition and Software, Thomson Reuters For **data users** to get the most out of this evolution, a centralised repository for digital reports could be instrumental in shaping how information is used. Regulators in the US and Japan have mandated these<sup>46,47</sup> with the EU also developing one of their own.<sup>48</sup> The way data users access this infrastructure varies by jurisdiction, but its success ultimately depends on how efficiently users can gather data from a reliable, consistent source.

Accreditation and advocacy organisations, such as CPA Australia<sup>49</sup>, would also support the development of accounting professionals. Peak bodies could develop guidance materials following a digital reporting mandate, and even run professional development webinars.



### CPA Australia's role in supporting a digital reporting transition

CPA Australia has long supported a digital reporting mandate in Australia and would support stakeholders in the transition. As a member organisation that provides education, training, technical support and advocacy for the international accounting profession, its members and partnerships include a variety of stakeholders in the ecosystem. **Technology providers:** CPA Australia would consider developing and providing guidance and resources to stakeholders, and it could work with technology providers interested in creating products to support new digital reporting requirements. While it wouldn't assist in software development, CPA Australia can help dispel the concerns of stakeholders, building their understanding of XBRL tagging and what's required to make it user friendly.

**Report preparers:** CPA Australia's membership includes many report preparers across the public and private sectors. It sees its role in digital reporting as one of advocacy, information sharing, communication and the provision of guidance and resources. As part of this, it may consider hosting webinars and events and developing professional development courses and materials on the topic. **Auditors:** CPA Australia helps promote and protect quality in auditing and financial reporting. To support auditors, it would consider developing guidance and resources on understanding digital reporting and how it impacts audit methodologies and outcomes.

Ultimately, CPA Australia would aim to play a key role in the digital reporting landscape as a conduit between stakeholders. While it has a co-regulatory role with respect to its members, it also has important responsibilities to support and educate them, helping advance and maintain the quality of financial reporting in Australia.

### 4.3 Setting the scene for change

The economic dividend of digital reporting relies on the ability of auditors, regulators, investors, and researchers to gather information, analyse it, and use it to make more informed decisions. Digital reporting is only as useful as the data itself, which means we must consider what impacts the quality and relevance of information.

Who should report and when? A mandate should start with the largest businesses that have the resources to train staff and understand their obligations. This could include larger listed entities, financial institutions and government business enterprises – the kind of organisations that are more mature in their reporting approach and would better absorb the burden. Over time, a mandate could be extended to smaller, not-for-profit and general government entities.

"We recommend phasing in a digital reporting mandate starting with the largest listed companies and reporting entities, then working down from a revenue and reporting perspective, as we have seen with other global implementations."

### **Andrew Hay**

Head of Proposition and Software, Thomson Reuters

What should be reported digitally? Requirements vary between jurisdictions, with XBRL tagging ranging from level one (the least detailed) to level four (the most detailed).

Chartered Accountants Australia and New Zealand (CA ANZ) researched a digital reporting mandate and highlighted it should be limited to information that's standardised, consistent and verifiable. This needs to be supported by a consistent taxonomy for labelling information.<sup>50</sup>

Regardless of the level of tagging required, it is crucial to ensure that the Australian XBRL taxonomy aligns with international standards, such as IFRS, to enable comparability and seamless integration of financial data on a global scale. This will not only benefit Australian businesses and investors but also strengthen the country's position in the global financial market.

auditors? Auditors form an opinion on whether financial reports comply with applicable accounting standards and give a true and fair view. There's potential to expand their scope to ensure XBRL tags are reliable and subject to assurance<sup>51</sup>, though subjecting digital reports to an audit and assurance process may be more suitable once the practice is well established in Australia. It's also important to support auditors in this transition by developing their capabilities along with an audit standard for XBRL.

### How should digital reporting impact the role of



What about ESG reporting? In June 2023, the Australian Government released a consultation paper on Climaterelated financial disclosure, confirming its commitment to introducing standardised and internationally-aligned reporting requirements to enhance transparency and accountability when it comes to businesses' climate-related plans, financial risks, and opportunities.

When standards are introduced, digital reporting should be part of the design principles from day one to reduce transition costs for business.

"It takes focus to get good quality data. It needs focus from companies in preparation. It needs focus from the regulator in review and enforcement. It needs focus from users to provide feedback to issuers. All of this takes at least a couple of years to bed down."

### John Turner

CEO, XBRL

"Standardised disclosure of companies' climate-related risks and opportunities is critical for investors to have the right data to inform their investment decisions. New or amended IFRS Accounting Standards are accompanied with a corresponding digital taxonomy – the IFRS Accounting Taxonomy. In the same way, the ISSB is developing a digital taxonomy to match the incoming IFRS Sustainability Disclosure Standards, ensuring digital reporting is factored in from the start."

### Ann Tarca

IASB Member

"We want to improve ESG outcomes because it is good business – it's not just about compliance or managing perceptions. By consolidating ESG and financial outcomes into one digital corporate report, overall business outcomes will integrate both results."

### Jessica Hyman

Head of Sustainability and Diversity Equity and Inclusion, Atlassian



### A.1 Modelling the economic impact of digital financial reporting

This section outlines the scenario captured in the CGE modelling of a digital financial reporting mandate in Australia. The scenario captures the expenditure required before undertaking digital financial reporting and the productivity benefits for businesses, regulators, and auditors, once digital financial reporting is a successful practice in Australia.

Note that the modelled scenario is limited to digital financial reporting and does not encompass digital reporting for ESG related disclosures. All references to digital reporting in this appendix refer to digital financial reporting only.

### A.1.1 Developing a regulatory scenario

To undertake CGE modelling, a regulatory scenario for a digital reporting mandate was defined. This scenario captures the potential requirements under a digital reporting mandate, and while it was informed from general research and consultation findings, is not based on specific recommendations from regulatory bodies in Australia.

The scenario assumes:

- A digital reporting mandate applies to large Australian businesses, modelled on the number of businesses that reported having more than AUD 50 million in revenue in the Business Longitudinal Analysis Data Environment (BLADE) dataset published by the ABS. In 2018-19, 8,683 businesses in Australia had revenue over this threshold.52
- The Australian Government would develop a central repository for digital financial reports that businesses can access to gather data from one location.<sup>53</sup>
- · A digital reporting mandate would be introduced in 2025-26.

### A.1.2 Capturing expenditure from a digital reporting mandate

Undertaking digital reporting would require expenditure from a range of stakeholders, including report preparers, regulators, and auditors. This expenditure would cover training costs and the cost to prepare digital reports for businesses, the cost to change regulations and develop a digital report submission platform, and the cost to train auditors.

This expenditure is captured in the CGE modelling. The specific methodology used to estimate the different types of expenditure is outlined below.

### A.1.2.1 Costs to businesses

The costs to undertake digital reporting for businesses include training staff on digital reporting processes, purchasing software that is compatible with XBRL, undertaking the XBRL tagging process, checking and validating data, and submitting reports.

For the purposes of estimating business expenditure in the CGE modelling, an SEC study<sup>54</sup> investigated the costs to businesses to prepare and submit interactive data format financial statements.

The cost of preparing and submitting financial statements was divided into four categories: preparation face financials (noting this includes the cost involved in training staff to undertake the tagging process), preparation footnotes, preparation schedules, and software and filing agent services. The cost of website posting was also included. The expenditures were then categorised based on whether they were the first submission (which takes longer and is, therefore, more costly) or a subsequent submission.



The cost in each expenditure category was converted from USD to AUD<sup>55</sup> and adjusted to real, 2023 dollars.<sup>56</sup> When using the cost of 'block text' submissions, the first submission was estimated to cost businesses \$76,000 AUD, while subsequent submissions cost \$25,000 AUD. To simplify the impact of transfer effects in the CGE modelling (i.e., where a cost is borne by one party where another directly and conversely benefits), the cost of software and filing agent services was not captured in the CGE modelling. The remaining cost of the first submission and subsequent submission for businesses was \$65,000 AUD and \$14,000 AUD respectively.

The first submission expenditure was modelled to occur in 2025-26, while the subsequent submission expenditure was modelled to occur every year thereafter until the end of the modelling period.

While the actual costs to prepare digital financial reports could vary significantly by business (depending on how digital reporting ready the businesses are), this expenditure indicates the potential costs for businesses to undertake digital reporting.

#### A.1.2.2 Costs to Government

The Australian Government is expected to incur some expenditure because of a digital reporting mandate. There would be costs involved in changing regulations and assessing the impacts of doing so, as well as the costs of providing training for compliance personnel (such as ASIC employees) and developing digital infrastructure to support digital report submission. Given the potential variation in costs, only the costs involved in developing a centralised repository for digital reports were estimated.

The expenditure related to building and maintaining a central reporting repository, covers the work on functionalities and capabilities development, licence fees, system maintenance, cloud computing infrastructure, cloud storage costs, cloud network and operations. These costs were estimated based on the cost to develop similar digital infrastructure in jurisdictions that have implemented a digital reporting mandate, such as the EU and the US.

The EU outlined the estimated cost to develop the European Single Access Point (ESAP) portal which is set to provide the EU with a centralised repository for digital reports from 2024.<sup>57</sup> The total cost to develop this digital reporting repository was estimated to be €12.9 million in 2021<sup>58</sup>, which when estimated in real, 2023 Australian dollars, equates to \$22.7 million AUD. The timing of the infrastructure cost was modelled to reflect the five phases in the ESAP development plan, which accordingly included 32% of total costs in the first year, increasing to 49%, 64%, 85%, and 100% respectively in the corresponding years to be fully developed by 2027-28. Annual maintenance was assumed to represent approximately 10% of the total development cost, in this case amounting to approximately \$2 million AUD each year.



### A.1.2.3 Costs to audit businesses

Audit businesses are required to adapt to changes in reporting technologies while still ensuring their clients are compliant with financial reporting regulations. With a digital reporting mandate, auditors would be required to understand the implications of digital reporting and potentially audit XBRL tags, depending on regulatory requirements. Adapting to new standards in an industry would require professional training, which imposes a cost on audit businesses.

Several data sources have outlined the approximate time it takes to become proficient in digital reporting. An average of 90 hours<sup>59</sup> was adopted for training requirements and was assumed to apply to auditors. The average hourly wage was identified from ABS data on average weekly earnings<sup>60</sup> (full-time, normal earnings), equating to \$55 per hour for the professional, scientific and technical services sector when assuming a 38-hour working week. The training costs were assumed to be imposed on all external auditors in Australia, of which there were 6,891 during the 2021 Census of Population and Housing.<sup>61</sup> The profile of uptake of training is assumed to be zero in the first two years, followed by 50% in the third (2024-25) and fourth year (2025-26), and 9.1% in each subsequent year (to account for industry turnover and new entrants into the profession).

### A.1.3 Capturing productivity benefits from a digital reporting mandate

Following the initial period in which the industry takes time to understand the new processes involved in digital reporting and learn to execute these processes correctly, digital reporting has shown evidence to become a more efficient process with productivity benefits for many stakeholders. The productivity benefits were modelled for report preparers, regulators, and auditors.

### A.1.3.1 Productivity benefits for report preparers

The productivity gain benefit for report preparers stems from the average reduction in report preparation costs, particularly from the removal of manual data entry, data standardisation, validation, and data checking costs. The average improvement to report preparers' productivity was estimated at 28%, based on estimated time savings from various studies.<sup>62,63,64,65</sup> The productivity benefits to report preparers were apportioned across industries based on the percentages of large businesses and accounting professionals relative to other employees in each industry. The number of employees who benefited from the productivity gain was estimated to be 52,098<sup>66</sup> and the share of accountants required to learn XBRL tagging was assumed to be 50%, given that large firms are likely to have dedicated accounting staff who are familiar with XBRL tagging. It was assumed that the productivity benefit would accrue to 50% of the tasks undertaken by accountants.

It was assumed that it would take five years to fully realise the productivity benefits post implementation of an XBRL mandate. In the first year post implementation, it was assumed that no productivity benefits would arise; while in the five years thereafter, the productivity benefit was assumed to increase by 20% until the benefit was 100% realised.



#### A.1.3.2 Productivity benefits for regulators

Regulators are expected to experience increases in productivity by being able to rapidly analyse large volumes of financial information and conduct automated processes to identify outlying information. While there is no literature explicitly outlining the productivity benefits of XBRL for regulators in other jurisdictions, the benefits of XBRL can be compared to other digital technologies that have improved processes for regulators.

The productivity gain for regulators was estimated by the cost savings that were forecast to be realised from the implementation of the Single-Touch-Payroll (STP) system, as per the 2019-20 Federal Budget.<sup>67</sup> These cost savings were compared to overall departmental funding for the Department of Social Services to estimate approximately 2.0% savings from the STP initiative. The regulators assumed to benefit from XBRL reporting include the Australian Taxation Office (ATO), Australian Prudential Regulation Authority (APRA), Australian Security and Investment Commission (ASIC), and Australian Bureau of Statistics (ABS). All are users of financial statements and would gain efficiency from being able to quickly analyse digital data. Based on average staffing levels in 2021-22 (actual) and 2022-23 (projected)<sup>68</sup>, these departments represented an average of 3.1% of the public administration and safety workforce.<sup>69</sup>

As for report preparers, it was assumed that it would take five years to fully realise the productivity benefits of an XBRL mandate. In the first year post implementation, it was assumed that no productivity benefits would arise; while in the five years thereafter, the productivity benefit was assumed to increase by 20% until the benefit was 100% realised.

### A.1.3.3 Productivity benefits for auditors

As XBRL enables auditors to more easily validate information contained in digital financial reports, auditors may experience a productivity improvement from a digital reporting mandate. Approximately 6,891 external auditors are employed in Australia,<sup>70</sup> with many of these auditors likely to benefit from a XBRL mandate for large businesses.

Evidence from international jurisdictions suggests that auditors do experience productivity benefits from digital reporting mandates. The average benefit of three comparable studies of the USA<sup>71</sup>, Japan,<sup>72</sup> and China<sup>73</sup> was a 29.3% efficiency gain. It was assumed that 50% of an auditor's role would be subject to this productivity gain.

As for report preparers and regulators, it was assumed that it would take five years to fully realise the productivity benefits of an XBRL mandate. In the first year post implementation, it was assumed that no productivity benefits would arise; while in the five years thereafter, the productivity benefit was assumed to increase by 20% until the benefit was fully realised.



#### A.1.4 Increased investment opportunities

An XBRL mandate is expected to deliver benefits to investors, as they can consume large amounts of accurate information quickly and conduct sophisticated analyses using machine readable digital data. As investors can more efficiently consume financial information, the cost of equity capital is effectively lower. A study of US-based XBRL reporting firms provided evidence to suggest that the XBRL mandate reduced the cost of equity capital by 60 basis points (0.60%).<sup>74</sup>

The reduction in the cost of equity capital was used in an overall measure for the reduction in the cost of capital, based on the debt to equity ratio in Australia. Approximately 33% of finance in Australia was raised through equity financing in September quarter 2022, while the remaining 67% was through debt financing.<sup>75</sup> When adjusted to the debt to equity ratio in Australia, the total reduction in the cost of capital was estimated to be 20 basis points from the introduction of an XBRL mandate. As with the productivity benefits, the reduction in the cost of capital was assumed to grow over time as digitally reported data increases in quality and investors become more accustomed to analysing digital data. It was assumed that it would take five years to fully realise the reduction in the cost of capital, post implementation of an XBRL mandate. In the first year post implementation, it was assumed that no reduction would occur; while in the five years thereafter, the reduction in the cost of capital was assumed to increase by 20% annually until the cost reduction was fully realised.



### A.2 DAE-RGEM

The Deloitte Access Economics regional general equilibrium model (DAE-RGEM) belongs to the class of models known as recursive dynamic regional CGE models. Other examples of models in this class are the Global Trade and Analysis Project Dynamic (GDyn) model, the Victoria University Regional Model (VURM) and The Enormous Regional Model (TERM).

This model projects changes in macroeconomic aggregates such as GDP, employment, export volumes, investment and private consumption. At the sectoral level, detailed results such as output, exports, imports by commodity and employment by industry are also produced.

The following diagram gives a stylised representation of DAE-RGEM, specifically a system of interconnected markets with appropriate specifications of demand, supply and market clearing conditions to determine the equilibrium prices and quantity produced, consumed and traded.

#### Figure A.1



Stylised representation of DAE-RGEM



### DAE-RGEM is based on a substantial body of accepted microeconomic theory. Key features of the model are:

- The model contains a 'regional household' that receives all income from factor ownerships (labour, capital, land and natural resources), tax revenues and net income from foreign asset holdings. In other words, the regional household receives the gross national income (GNI) as its income.
- The regional household allocates its income across private consumption, government consumption and savings to maximise a Cobb-Douglas utility function. This optimisation process determines national savings, and private and government consumption expenditure levels.
- Given the budget levels, household demand for sourcegeneric composite goods is determined by minimising a CDE (Constant Differences of Elasticities) expenditure function. For most regions, households can source consumption goods only from domestic and foreign sources. In the Australian regions, however, households can also source goods from interstate. In all cases, the choice of sources of each commodity is determined by minimising the cost using a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function defined over the sources of the commodity (using the Armington assumption).
- Government demand for source-generic composite goods, and goods from different sources (domestic, imported and interstate), is determined by maximising utility via Cobb-Douglas utility functions in two stages.
- All savings generated in each region are used to purchase bonds from the global market whose price movements reflect movements in the price of creating capital across all regions.

- interest rate.
- CRESH aggregation function.

• Financial investments across the world follow higher rates of return with allowance for country-specific risk differences, captured by the differences in rates of return in the base year data. A conceptual global financial market (or a global bank) facilitates the sale of the bond and finance investments in all countries/regions. The global saving-investment market is cleared by a flexible

 Once the aggregate investment level is determined in each region, the demand for the capital good is met by a dedicated regional capital goods sector that constructs capital goods by combining intermediate inputs in fixed proportions and minimises costs by choosing between domestic, imported and interstate sources for these intermediate inputs subject to a

• Producers supply goods by combining aggregate intermediate inputs and primary factors in fixed proportions (the Leontief assumption). Source-generic composite intermediate inputs are also combined in fixed proportions (or with a very small elasticity of substitution under a CES function), whereas individual primary factors are chosen to minimise the total primary factor input costs subject to a CES (production) aggregating function.



# Glossary

Acronym	Full name
AASB	Australian Accounting Standards Board
ASIC	Australian Securities and Investment Commission
ASX	Australian Securities Exchange
ATO	Australian Taxation Office
CA ANZ	Chartered Accountants Australia and New Zealand
CGE	Computable general equilibrium
CSRD	Corporate Sustainability Reporting Directive
DAE	Deloitte Access Economics
DAE-RGEM	Deloitte Access Economics Regional General Equilibrium Model
EDGAR	Electronic Data Gathering, Analysis and Retrieval system
ESG	Environmental, Social and Governance

Acronym	Full name
EU	European Union
HTML	HyperText Markup Language
IFRS	International Financial Reporting Stand
ISSB	International Sustainability Standards E
iXBRL	Inline eXtensible Business Reporting La
PDF	Portable Document Format
SEC	Securities and Exchange Commission
TWE	Treasury Wine Estates
UK	United Kingdom
US	United States
XBRL	eXtensible Business Reporting Languag

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