



Phylleos

Economic analysis and simulation modeling of changes to the FASB's Improvements to Income Tax Disclosures

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Executive Summary

Quick Overview

Analyzing the Effects of New FASB Rules on Businesses

This report examines how businesses may be affected by the Improvements to Income Tax Disclosures project currently being finalized by the Financial Accounting Standards Board (FASB)¹, and how these effects could flow on to impact the economy. The new regulations require companies to change how they manage their finances and report financial information.

As part of the study, we surveyed 152 different companies in the US across various industry categories. The survey results indicate that companies may experience cost increases in impacted business functions ranging from 0% to as high as 62%. On average across all firms surveyed, the reported estimates of cost increases for items/activities like software, staffing, training, administration, compliance, and equipment was approximately 9.9%.

To understand the broader economic impact of these cost increases and other impacts, we combined our data with findings from European studies of related accounting standards reforms. We used a computable economic model that simulates the activity of the US economy and its interactions with foreign economies to extract lessons about the potential consequences of these changes on US economic macroeconomic and industry performance.

How Do Higher Costs Affect Businesses and the Economy?

1. **Increased Business Costs:** When businesses must allocate more resources to meet the new regulatory requirements, such as hiring additional personnel, acquiring new software, and providing extra training, they often respond by raising the prices of their products and services.
2. **Growing Labor Costs:** The new regulations also necessitate hiring more personnel for tasks related to legal, accounting, and administrative work. Since these roles become more sought-after, companies find themselves paying higher wages to attract and retain employees in these occupations.
3. **Reduced Efficiency and Higher Prices:** Increases in operating expenses can make it challenging for businesses to maintain their operational efficiency. Many of the cost increases predicted to result from the new accounting standards are related to cost overheads, meaning that the additional labor and other costs may not lead to more production. Firms may need to pass some of the cost increases on to consumers, leading to higher prices. Higher prices can result in reduced consumer demand and contribute to

¹ See ASU 740 (Proposed Accounting Standards Update—Income Taxes (Topic 740)—Improvements to Income Tax Disclosures) (March 15, 2023), available at Proposed Accounting Standards Update—Income Taxes (Topic 740): Improvements to Income Tax Disclosures (File Reference No. 2023-ED100) ([fasb.org](https://www.fasb.org)).

broader temporary inflationary pressures on the economy, with impacts on the real spending power of consumer incomes.

4. **Job Cuts:** When consumers reduce their purchases due to higher prices, businesses often respond by trimming their workforce. According to our simulations, in the first year alone, there could be a reduction of approximately 27,000 full-time equivalent jobs, and thereafter job losses accumulate at a slower but positive rate until real wage growth slows sufficiently to offset impacts on labor demand.
5. **Dampened Investment:** Higher costs and regulatory uncertainties can make investors more cautious. While proponents argue that the proposed new accounting standards provide investors more information, studies in Europe suggest they may seek greater returns on their investments to compensate for perceived reputational and other risks, forcing businesses to pay more for capital needed for new projects. This can lead to a decrease in overall business investment.
6. **Slower Economic Growth:** Reduced business output, fewer jobs, and diminished investment can slow down the overall growth of the economy. Initially, this could result in GDP being approximately \$12 billion lower in 2022 terms, with a slightly lower economic growth rate ongoing due to productivity impacts and lower productive capital accumulation due to decreased investment. Impacts on investment particularly can have more sustained and compounding consequences as a lower US capital stock in each year provides a smaller base from which to build in each successive later year.

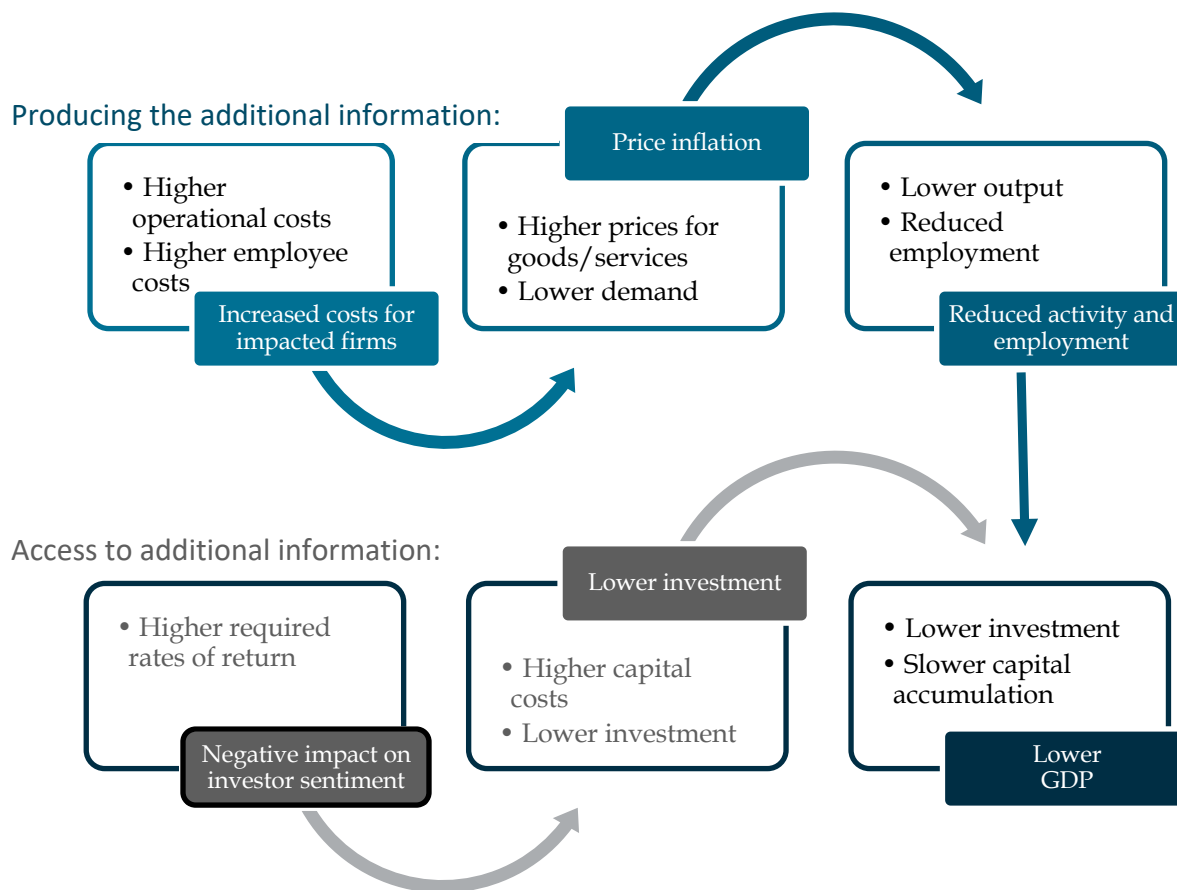
Methodology

Survey data on estimated cost impacts of the Financial Accounting Standards Board (FASB) Improvements to Income Tax Disclosures (ASU 740) proposal were collected from a survey sample of 152 firms in 37 broad industry categories. Respondents reported impacts ranging from 0% to 62% increase in costs for impacted internal business functions including software, staffing, training, administration, compliance, and equipment. **The average estimated cost increase in the reported business functions across all the firms surveyed was 9.9%.**

These survey results were combined with findings of impacts from related studies in Europe and used to estimate the potential economy-wide impacts of the FASB board proposal, using a dynamic computable general equilibrium (CGE) model of the US economy. The simulations estimate potentials change from a 15-year business-as-usual baseline as a result of the reform.

Findings

There are two key avenues of impact. The first is driven by higher costs associated with firms producing the additional information required to meet the enhanced reporting requirements. The second is driven by access to the additional information impacting investor sentiment/outcomes.



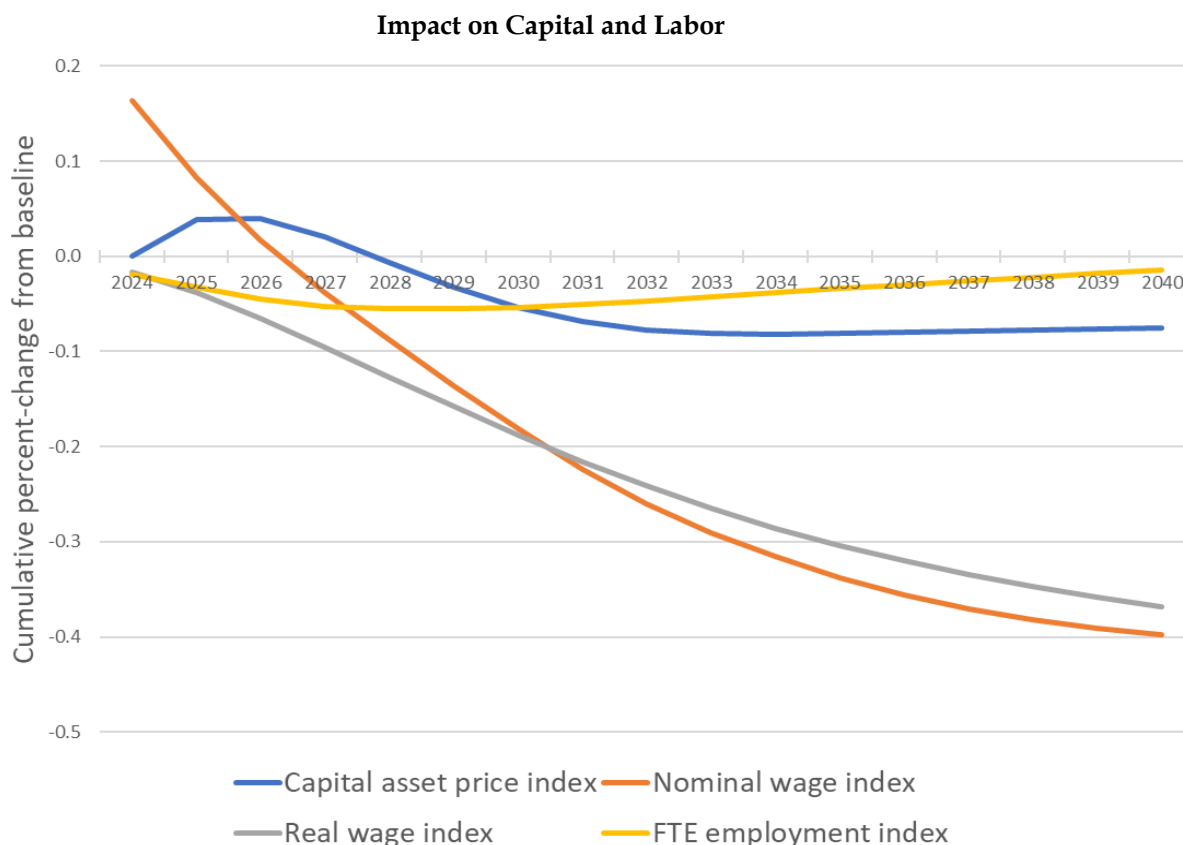
Increased costs lead to higher prices, lower demand and lower employment.

- Higher overhead costs, such as compliance and training expenses, raise overhead costs, which in turn raise the cost of a firm's products/services.
- There will also be higher employee costs in certain occupational categories as more complex reporting standards and auditing requirements necessitate more staff in legal, accounting, and administrative roles. Greater demand for these occupations initially bids up wages for these roles, meaning higher labor costs for all firms that employ them.
- Higher overhead and related employee costs lead to impacts on productivity, and potentially to higher product prices for impacted firms. These higher prices flow through to negatively impact demand for firm products and potentially to some cost-push inflation at the macroeconomic level.
- With reduced demand, firms produce less output and generally require less employees on average, all other things being equal. As a result, in this simulation, aggregate real employment demand is lower in the first year with a magnitude equivalent to around **27,000 less FTE jobs in 2022 terms** in the absence of offsetting wage adjustment.
- By **2027**, when employment impacts peak, it is estimated that FTE employment could be around 0.052% lower (cumulatively) compared to if the reform had not been introduced, equivalent to around **79,000 FTE jobs in 2022 terms**. Normal labor market adjustment via slower real wage growth eventually sees employment converge back towards baseline employment levels, with this simulation showing **cumulative aggregate real wages 0.37% lower by 2040**: in terms of raw magnitude² this is around \$39.1 billion in terms of 2021-dollar US aggregate wages and salaries.
- After 2027, wages bear the weight of labor market adjustment as employment converges back to the baseline. By year **2040** of the simulation, **aggregate payments to labor change by a cumulative -0.42 percent** compared to baseline levels. This is overwhelmingly due to lower current-dollar (nominal) wages, as employment has essentially converged back to "long-run" levels by this time, and can be contextualized as **the cost-equivalent of around 609,000 average-wage 2022 FTE job incomes over the course of the simulation timeline**³. A key factor in this outcome is the accumulating loss in capital accumulation due to lower

² This number is cumulative impact between 2022 and 2027 and cannot be interpreted as a single year impact. Additionally, the degree to which labor market adjustment to shocks is shared across both employment and wage impacts in the shorter term is uncertain. The real wage impact is most directly a reflection of net labor productivity impacts, some of which flow from other sources like, for example, a lower labor-capital ratio resulting from lower investment.

³ "Job-equivalent" values should be interpreted in the correct context. Job equivalent metrics normally translate changes in the product of wages and employment into employment numbers only, thereby effectively converting the wage-change impact into jobs. This is not the same as saying, for example, that there will be 609,000 fewer jobs in 2040. Instead, it provides an estimate of the change in aggregate labor income reformulated as an equivalent number of average-wage-job *incomes* as a unit of measurement, *and* in this case reflects the *accumulated* impact over time.

investment, which leads to falling labor-capital ratios and productivity, and so to lower wages.



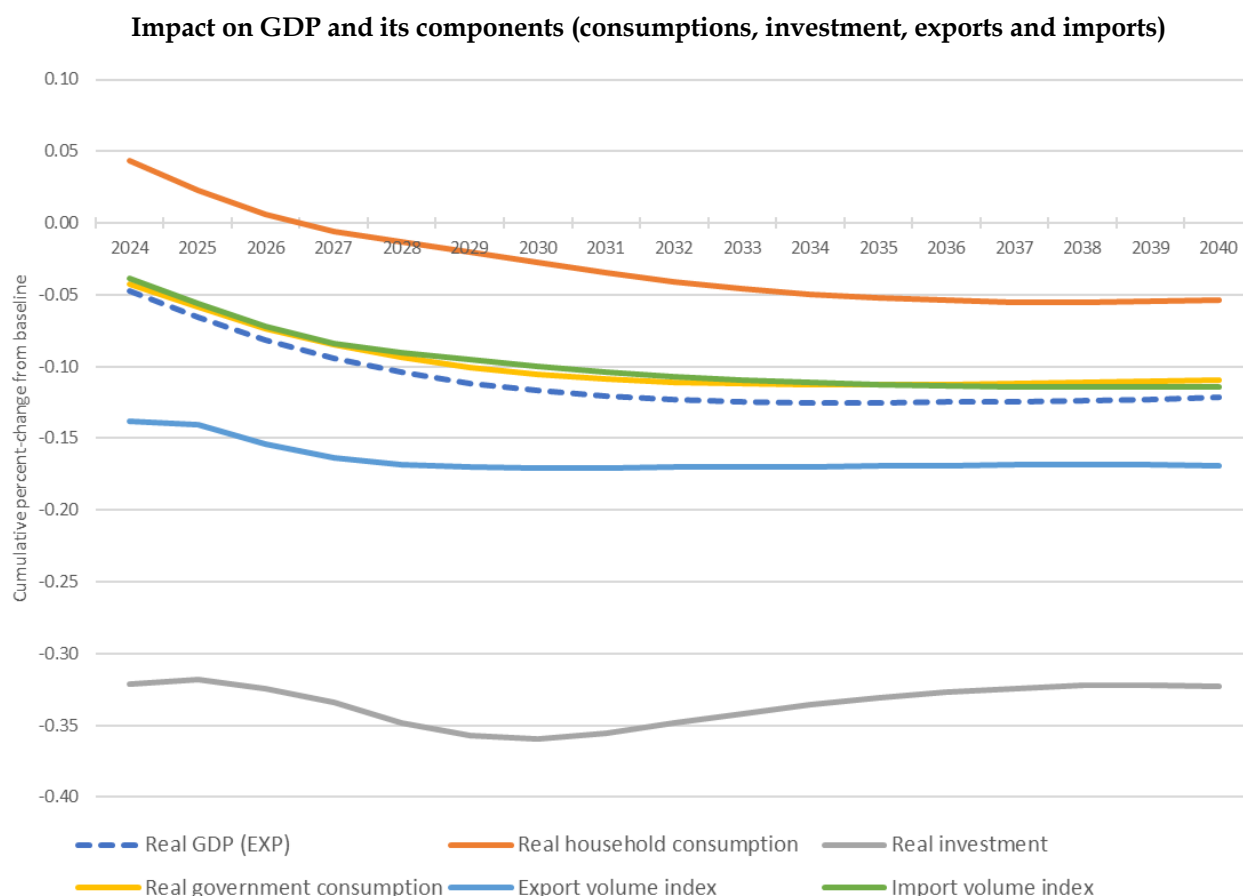
Increased reporting requirements can impact investor sentiment, leading to higher required rates of return, increasing the cost of capital, and reducing investment.

- In addition, studies conducted in the EU⁴ suggest adverse impacts on investor sentiment for impacted firms, manifested as higher required rates of return (RROR) on investment. Such impacts can lead to higher capital costs and to lower investment levels by impacted firms.
- The firms impacted most by the board proposal are more internationally diversified than average and have more-than average exposure to international capital mobility.
Investment is 0.32% lower initially, with the cumulative impact peaking at 0.36% lower in year 2029 of the simulation.

⁴ For example, see Müller, Raphael & Spengel, Christoph & Weck, Stefan, 2021. "How do investors value the publication of tax information? Evidence from the European public country-by-country reporting," ZEW Discussion Papers 21-077, ZEW - Leibniz Centre for European Economic Research.

Overall, lower production, employment and investment ultimately lead to lower GDP.

Real GDP is 0.047% below baseline initially (equivalent to about **\$12 billion lower GDP in 2022 terms**). The year-on-year impact lessens somewhat over time but remains negative - **GDP continues to be below baseline over the projection period** as a result of permanent reductions in productivity and slower capital accumulation from lower investment.



About



The National Foreign Trade Council (NFTC), organized in 1914, is an association of U.S. business enterprises engaged in all aspects of international trade and investment. NFTC'S membership covers the full spectrum of industrial, commercial, financial, and service activities. Members support establishing and maintaining international tax norms that provide certainty to enterprises conducting cross-border operations. Learn more about NFTC at www.NFTC.org



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1. Introduction

1.1. Background

The FASB Improvements to Income Tax Disclosures project aims to improve the transparency and investor decision-related usefulness of income tax disclosures. FASB states that “Investors, lenders, creditors, and other allocators of capital” have suggested possible reforms to current tax disclosure arrangements to allow investors to “better (1) understand an entity’s exposure to potential changes in jurisdictional tax legislation and the ensuing risks and opportunities, (2) assess income tax information that affects cash flow forecasts and capital allocation decisions, and (3) identify potential opportunities to increase future cash flows.”⁵

The investor cohort proposing these reforms contends that greater access to information on firms’ current and future exposure to domestic and offshore tax policy and related reforms will support better investor decision-making and more efficient portfolio allocation decisions. Such changes, were they to result in material impacts, could change both the size and destination of investment flows across both the sectoral and geographic dimensions.

The objective of this study is to provide initial estimates of the potential costs and benefits of the proposed changes to reporting standards, and to investigate possible net impacts on US macroeconomic and sectoral-level performance based on a series of economic modeling simulations.

1.2. Economic backdrop

The notion that “optimal” information supply might lead to more efficient asset allocation decisions is a widely accepted economic concept that is difficult to dispute, and basically constitutes the “**benefits**” side of the cost benefit calculus for reform.

On the other side of the equation, increased administration and compliance **costs** will be borne by firms subject to enhanced reporting standards. These increased costs will affect firms’ operating surplus and profits, thereby leading to impacts on rates of return for investors and, potentially, to changes in firms’ financial structure and access to capital. There may also be increased monitoring and enforcement costs borne by the public sector.

Proponents will agree that the purported benefits, particularly on a macroeconomic scale, do not grow perpetually with enhanced information supply. The provision of information also requires resources to produce and use, and technology, skill, and expert judgement to apply in the presence of uncertainty. The net cost-benefit outcome of more information is therefore unlikely to be positive at all possible levels of supply. The question to be addressed, as in any economic calculation, is about where the benefits and costs of information provide optimal net outcomes and is not simply a matter of “more information is always better”.

⁵ FASB project webpage, [Improvements to Income Tax Disclosures \(fasb.org\)](https://www.fasb.org/Improvements-to-Income-Tax-Disclosures)

The economic impacts of the proposed reporting standards will be driven by the interplay between these benefits and costs, and over time, particularly, because of impacts on firm investment behavior.

Investment is funded by savings, domestic or foreign. The economic argument for reform rests mainly on the notion that better information will lead to a more efficient allocation of a given pool of domestic and foreign savings, with an increased likelihood of those productive resources flowing to their “most valued” uses. A more efficient allocation of capital could lead to higher aggregate rates of capital growth and productivity, and so to higher levels of economic output over time. That is, could a given amount of savings provide higher economic returns?

Distinct from the argument that a given pool of saving might be allocated more efficiently, could it lead to more savings and, therefore, to more investment? This could happen because how much is saved from each dollar of income increases, because incomes themselves increase, or a combination. The potential for accounting standards reform to increase the macroeconomic saving rate itself is likely to be marginal at best. Over time, however, more efficient investment could lead to higher returns and higher incomes, and the increased availability of savings (from those higher incomes) for investment could generate longer run economic growth.

Working in opposition to these potentially positive effects are negative impacts on costs and profitability, and so on returns to investors flowing from increased entity administration and compliance costs. In addition, European studies suggest that investor sentiment impacts on the cost of capital for effected enterprises could be non-trivial and net-negative, leading potentially to lower levels of firm investment, productive capital growth, and output growth. Also, there could be public finance implications such as potential deadweight losses and “excess burdens” from increased tax collection necessary to finance increased public sector regulatory monitoring and enforcement costs, or from reallocation of public expenditures from other existing priorities from a given revenue take.



2. Transparent Reporting Standards: Potential Costs and Benefits

2.1. Literature Overview

There is a body of research describing both the potential costs and benefits associated with changes to reporting standards that aim to provide greater transparency associated with a firm's financial and taxation exposure.

The potential benefits discussed in these papers include:

1. **Improved access to information could support better investor decisions**, supporting better forecasts and reducing information asymmetries, and to more efficient allocation of the savings pool to the most productive and valued uses; and
2. Greater transparency could lead to **reduced tax avoidance behaviors**.

The potential additional costs discussed include the following.

1. **Compliance Costs**, such as additional labor, auditing, administrative, and technology costs, may be incurred as a result of the additional reporting requirements. Depending on current reporting/exposure to the reforms, firms may also need to accelerate tax returns or perform additional work to ensure consistent and timely reporting.
2. **Market reaction/reputation costs** as increased public or regulatory scrutiny could damage a company's reputation. Behavioral impacts are also possible as firms may adjust their operations to mitigate these reputational impacts, such as adjusting their legal and tax arrangements, relocation of production and/or legal administrative location, or restructuring growth.
3. **Consumers may also change their purchasing decisions**. However, while studies have seen evidence that public reporting and higher scrutiny of a firm's tax payments (or lack thereof) can impact consumers attitudes, they have stopped short of suggesting that this information necessarily affects their willingness to pay.
4. Firms could also encounter **competitive disadvantages** due to the disclosure of commercially sensitive information, making it available to competitors and business partners. For example, the profitability of certain activities or locations may be revealed, attracting more competitors or encouraging suppliers/customers to seek more favorable commercial arrangements. These impacts are more likely if the disclosure rules do not apply to all firms/countries.
5. There is concern that users (investors, consumers, authorities) may **misinterpret the data**. Studies suggest, for example, that care needs to be taken when trying to compare data from different jurisdictions, as there may be other factors that are not reported or that lack context: for example, tax exposure in non-reporting jurisdictions and related financial and operational strategies designed to optimize against a firm's overall international operations.

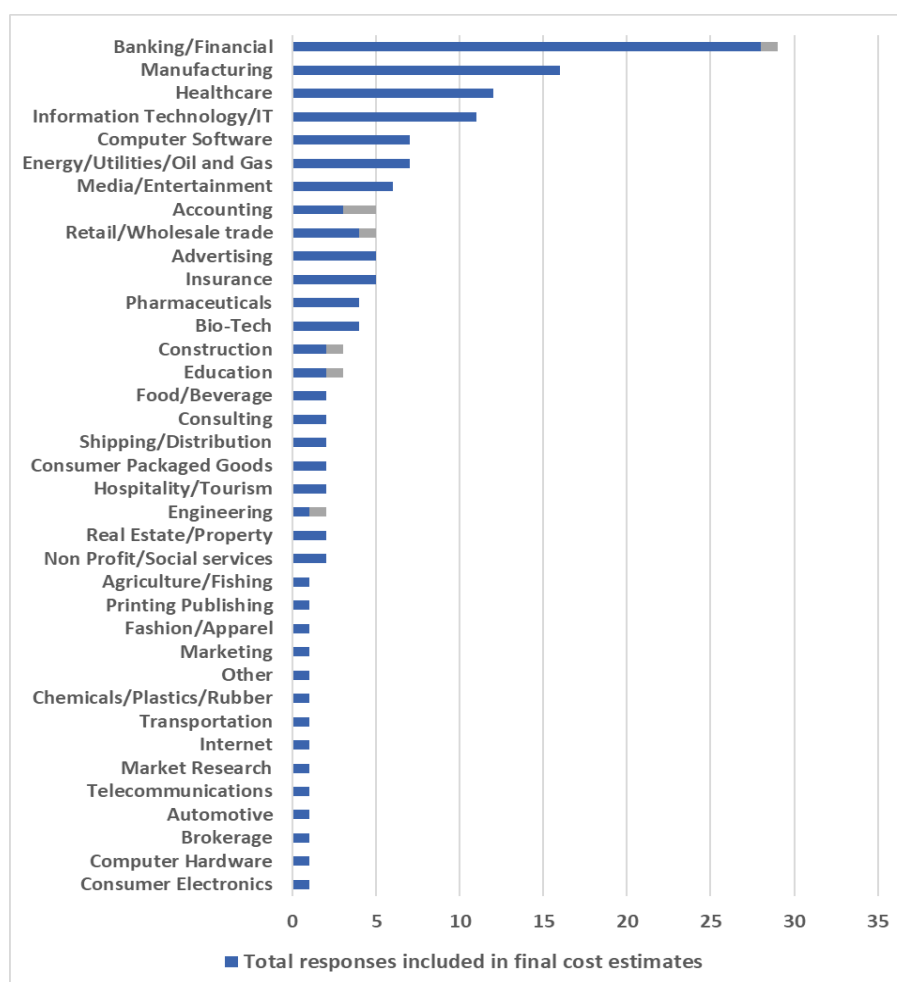
As relevant historical data is scarce, most studies discuss the costs and benefits in qualitative terms. As a result, very few studies have attempted to quantify the size of these impacts. A summary of the literature is presented in *Appendix 3: Literature Review and References*.

2.2. Company Survey

Responses were received from 152 firms across 37 broad industry categories (see Figure 1). The respondents were people in executive and management roles in related business function areas. They were asked a series of questions regarding their role at the firm and their outlook on the cost impact of compliance with enhanced FASB reporting requirements.

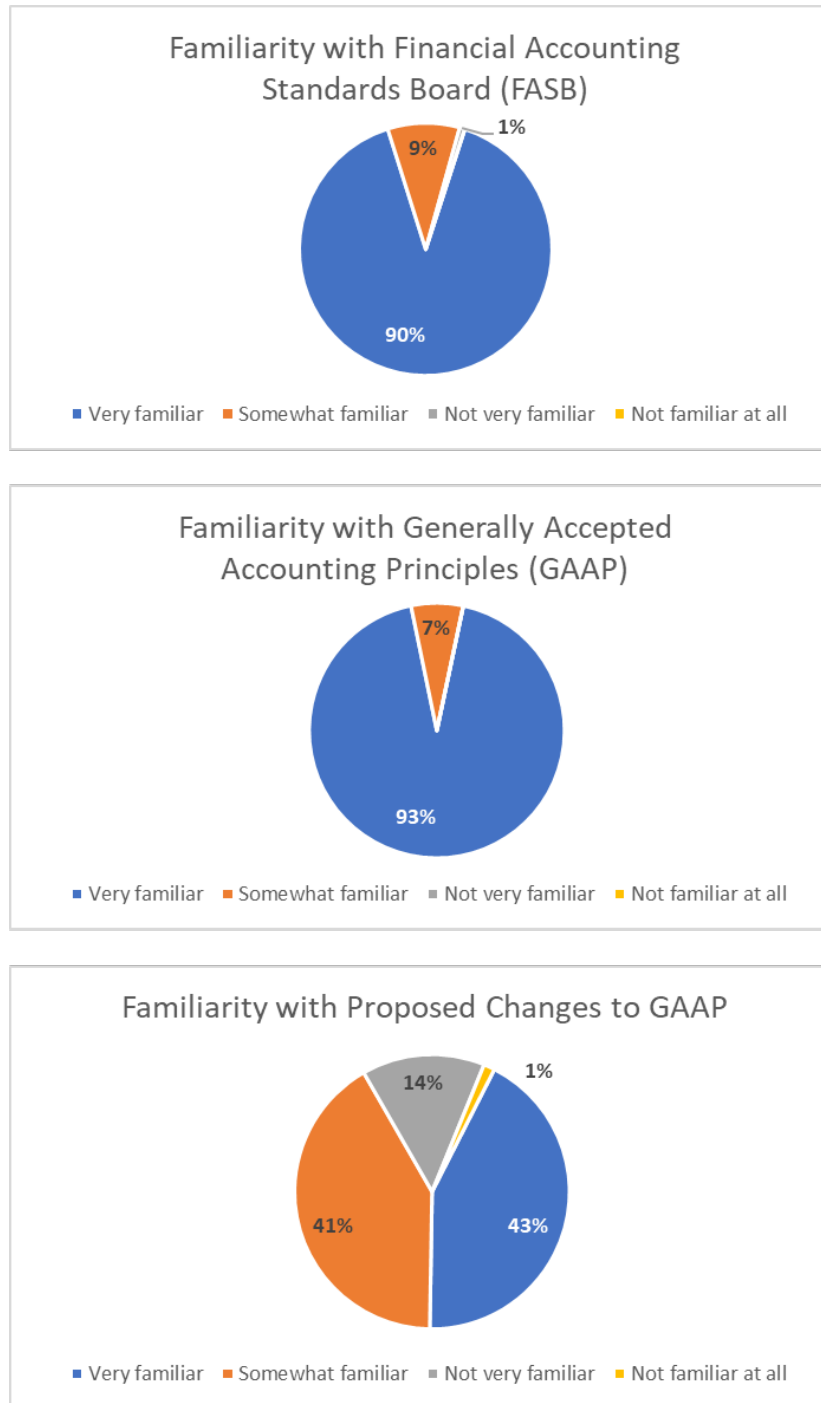
Responses were both qualitative and quantitative, the latter including their estimates of cost impacts on various relevant business functions. After assessing the survey data for consistency and contextual relevance, the sample was reduced to 145 firms' responses available to use in the cost impact analysis.

Figure 1: Industry Mix of Survey Respondents



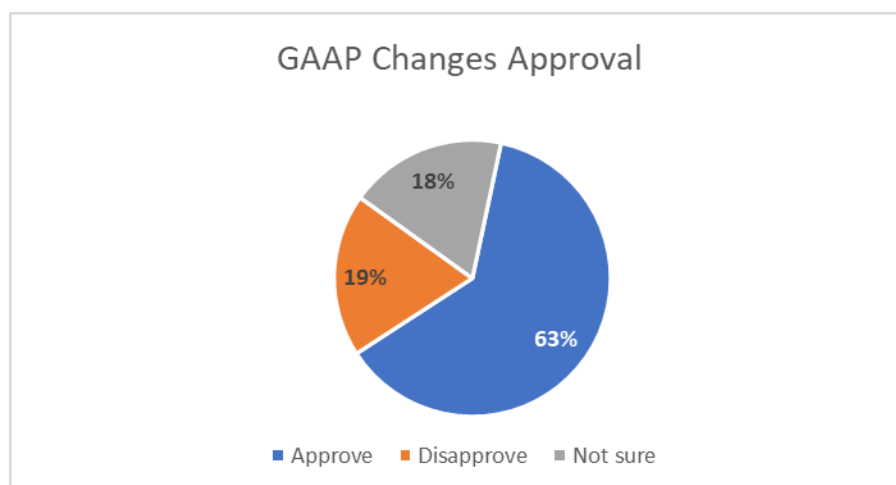
Survey respondents generally reported being *very familiar* with FASB and the Generally Accepted Accounting Principles (GAAP). In contrast, while a large proportion of respondents were also either *very familiar* or *somewhat familiar* with the proposed GAAP changes, around 15% were *not very* or *not at all familiar*.

Figure 2: Respondents familiarity with relevant agencies, standards and proposed changes



There was a mix of *positive*, *negative*, and *not sure* responses when survey respondents were asked whether they, generally, approved or disapproved of the proposed GAAP changes.

Figure 3: Respondents approval of proposed changes



Those who approved of the changes saw it as a way to provide greater transparency/ clarity in firm accounts, and that it could lead to more accountability from firms. Many also believed that it would make accounts easier for investors to understand, for example, providing gross amounts removing distortions from netting out, and disaggregation helping investors understand non-recurring/semi-recurring/volatile costs and income items. With additional data, respondents indicated that investors may be able to better identify risks and make decisions.

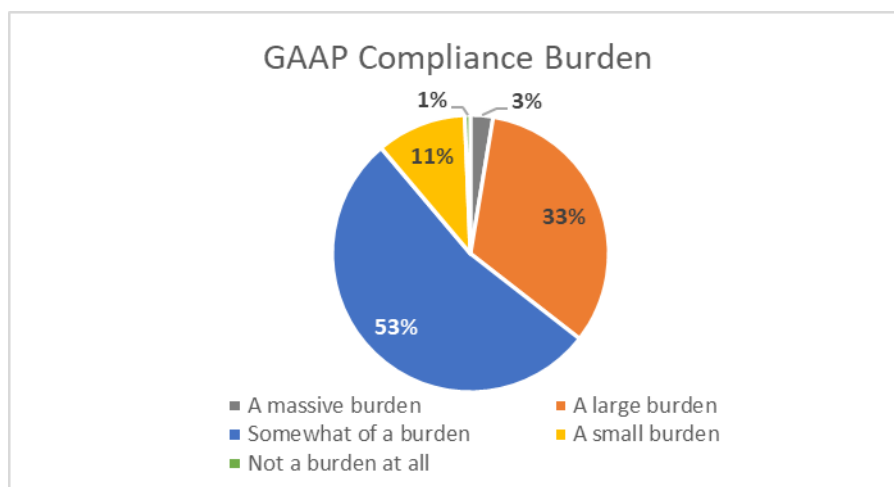
“Firstly, these changes aim to provide more detailed and relevant information to financial statement users, enhancing transparency and accountability. Secondly, the availability of disaggregated data can help stakeholders make more informed decisions...”

Those who disapproved were most concerned by the significant extra resources needed to implement this reform, the lack of consistency that could be applied, and that any benefits would be minor, if any.

“A significant amount of resource in people and time is going to be needed to compile information, that eventually few people are going to use, with little added value.”

In qualitative terms, over half of the firms saw the GAAP reforms as likely to have “somewhat of a compliance burden” on their current operations, while over two-thirds expected it to have a “large” or “massive” burden. Only 12% of the firms expected little or no additional burden from this reform. The expectation of impact varied significantly across respondents, with no clear pattern relating to industry or firm size.

Figure 4: Respondents approval of proposed changes



Respondents were also asked to estimate the potential accounting and compliance cost impact on their operations in quantitative terms. This was split across relevant business functions including software, staffing, training, administration, compliance, and equipment.

Overall, the survey indicated significant variations in cost change expectations as a result of the proposed GAAP disaggregation changes, with respondents reporting cost impacts ranging from negligible to a 62% increase in costs for the related business functions (see Table 1, on the following page). These cost estimates again varied across firms, with significant variation across industries and company size. **The average estimated cost increase in the reported business functions across all the firms surveyed was 9.9%.**

Table 1: Survey results - summary

Broad Industry	Number of responses	% change in accounting and compliance costs
Accounting	3	61.9%
Agriculture/Fishing	1	47.2%
Retail/Wholesale trade	4	45.4%
Construction	2	42.0%
Advertising	5	37.4%
Insurance	5	25.9%
Manufacturing	16	22.2%
Printing Publishing	1	21.9%
Education	2	18.6%
Fashion/Apparel	1	17.7%
Marketing	1	16.3%
Information Technology/IT	11	16.2%
Other	1	15.2%
Chemicals/Plastics/Rubber	1	12.2%
Healthcare	12	12.1%
Pharmaceuticals	4	12.0%
Food/Beverage	2	10.6%
Consulting	2	7.8%
Transportation	1	7.3%
Bio-Tech	4	6.6%
Computer Software	7	6.4%
Shipping/Distribution	2	6.0%
Consumer Packaged Goods	2	5.6%
Media/Entertainment	6	5.5%
Banking/Financial	28	4.1%
Hospitality/Tourism	2	3.9%
Energy/Utilities/Oil and Gas	7	3.4%
Internet	1	3.1%
Engineering	1	2.6%
Real Estate/Property	2	1.8%
Market Research	1	1.4%
Telecommunications	1	1.3%
Non Profit/Social services	2	1.2%
Automotive	1	0.0%
Brokerage	1	0.0%
Computer Hardware	1	0.0%
Consumer Electronics	1	0.0%
All companies	145	9.9%

3. Estimating the Impact of the Proposed Changes to FASB Reporting Standards

3.1. Methodology

To estimate the potential impact of the proposed changes to the FASB reporting standards through the Improvements to Income Tax Disclosures, the following key activities were undertaken.

- Analysis of survey results (discussed in Section 2.1), covering a sample of 152 firms across 37 industry categories,
- Review of existing literature and findings regarding the impact of transparency on investor activity (discussed in Section 2.2),
- Translation of key implications of the data from the survey and literature to two broad economic shock categories (discussed in Section 3.2, below), and
- Assessment of these impacts using an economic model (discussed in Section 3.3, below), to provide simulated impacts in terms of the deviations from a baseline forecast for the US economy and 115 industry groups.

3.2. Model Inputs – Estimating the “Shocks”

Shocks to two broadly defined economic variable types were simulated to estimate the potential economy-wide implications of the proposed FASB changes. The first shock type relates to the direct impact on company costs of the additional administration burden calculated from the survey results. The second shock type relates to impacts on the expected required rates of return stemming from a higher volume of public company data.

Change in Operational Costs

Shocks to cost various relevant categories were estimated from a combination of the survey results and various macroeconomic, industry, and company-level data sourced from official statistics. The latter were used to assist in translating survey results into estimates for economic shocks in standard economic reporting categories.

- a) The surveyed companies’ results were mapped to (i.e., reconciled with) the 71 industries definitions used by the Bureau of Economic Analysis (BEA, US Department of Commerce) for the US input-output accounts (IO). The economic simulation incorporates the US IO tables into its database. In particular, this project made use of the USE table in the IO accounts which details the sources and destinations of flows of goods and services and other production-related costs (for example, labor and capital costs).
- b) Reported cost impacts of the board proposal were drawn from the survey, for identified goods and services used by these businesses, and were allocated to the appropriate cost categories for each industry in the IO table. The overall change in total costs by good/service, industry, and across the whole economy was then calculated. In part, this was facilitated by assuming that the survey results were representative of the cost impacts

across the C-class corporate share in each industry, data for which was drawn from the Census Bureau and other sources.

- c) The survey also identified an increase in labor costs, which was translated into an overall change in accounting, finance, and administrative related occupations, using a similar methodology. That is, by estimating the employment impact from the responses of the surveyed companies, mapping those impacts to the appropriate Bureau of Labor Statistics (BLS) occupation for each BEA IO industry, and then assuming this was representative of the average impact across the corporate share of that industry.

Ultimately, the surveyed cost impacts were translated into changes in industry costs for BEA IO table categories for application to the cost data in the IO USE table. The cost impacts for each of 71 industries included a set of “intermediate inputs” (goods and services used as inputs into production) and labor impacts (by a subset of the “minor” occupational employment and wage categories from the Bureau of Labor Statistics or BLS).

Change in Rate of Return

A literature survey identified various studies, mainly conducted in Europe, looking at the impact of European policy reforms with parallels to the board proposal. For example, a widely cited study⁶ estimating impacts on firm capital costs stemming from adverse reputation and other related impacts was used as the basis for calculating a set of shocks to required rates of return on investment. The authors concluded that:

“...we find an average negative investor reaction to the EU's announcement... Our findings are consistent with the notion that the average investor evaluates the associated costs of public disclosure to exceed the benefits from a more extensive information environment and a potentially improved financial sustainability position associated with the increasing public pressure to be a ‘good corporate citizen’.”

The study quoted above quantified estimates of negative impacts on post-reform market capitalization by comparing pre- and post-reform equity values. In our study, these were re-interpreted and translated into estimated increases in the expected rate of return investors required to contribute capital to borrowing firms. Various estimates for such shocks were calculated for a variety of levels of scaling – the main simulation reported in the results section assumes direct scaling from the Muller *et al* estimates for changes in market capitalization into our calculated shocks to expected rates of return. Other simulations were conducted that assumed smaller and larger impacts on expected required rates of return.

⁶ Müller, *et al* (2021)

3.3. The Economic Modelling Framework

The economic model applied in this study is a dynamic computable general equilibrium (CGE) model of the US economy called GSM3US. The model is the current incarnation of a suite of models developed for a variety of US government agencies over the last 20 years, including the well-known USAGE model operated by the United States International Trade Commission (USITC), the International Trade Administration (ITA) in the Department of Commerce, and the Economic Research Service (ERS) in the U.S. Department of Agriculture (USDA)). The USAGE model was co-authored by the project lead on the study conducted for this report. The GSM suite of models has been applied in the development, assessment, and analysis of a large range of US national and sub-national policy reforms. In addition, variants of this modeling suite have also been developed for over 30 countries outside of the US and have been applied in policy analysis and development for a wide range of policy and economic matters around the world.

The GSM3US database is built on official US statistics from sources like the BEA, BLS, Congressional Budget Office (CBO), Environmental Protection Agency (EPA), Department of Energy (DoE), Treasury, and others. The industry and product structure is built on the BEA 71-order input-output tables, expanded to 115 sectors/products to include enhanced detail in areas like agriculture, energy, manufacturing, and utilities. The model's database and equations cover a comprehensive range of economic variables and include a range of dynamic (time-related) mechanisms that allow year-to-year forecasting and deviation analysis to be conducted. The model offers flexibility for experimental design, with a flexible closure⁷ capability and the ability to conduct both comparative-static ("what-if" style) and dynamic analysis.

As stated earlier, impacts estimated from elements of the survey results were combined with official economic statistics and empirical outcomes from relevant overseas studies and were then translated into model-consistent shocks in industry-specific impacts on intermediate input costs, labor costs by occupation, and impacts on required rates of return for investment.

The model's database uses the latest available BEA IO data for 2021 and a large range of other official data from economic accounts in that year including the balance of payments, international trade, government finance (including taxing and spending), labor market and occupational, and many others. The baseline forecast is informed in part by a variety of official US government forecasts: for example, near-term macroeconomic projections are developed using the long-term economic projections released from the CBO. The baseline forecast underpinning this project was run year-by year from 2021 to 2040.

⁷ In simple terms, this is the mix of (i) information provided to the model to set and inform the economic environment of the simulation versus (ii) the information calculated by the model and reported from the simulation runs.

The deviation simulation – the simulation including the policy reform shocks - runs year-by-year from 2024 to 2040, in a sense re-computing the baseline simulation *but* with the imposition of the policy shocks. The deviation – i.e., the difference in results between the two simulations – thereby provides an estimate of the impact of the shocks on the structure and growth path of the US economy at the macroeconomic and industry / product level, and for thousands of related economic variables.

4. Estimated Impacts of the Proposed Changes to FASB Reporting Standards

4.1. Overview of Simulation Results of New Reporting Standards

The study conducted several simulations to assess the potential economic impact of implementing new reporting standards. The numbers discussed here are drawn from one of these simulations, shedding light on the expected consequences between 2024 and subsequent years.

Direct Implications

Higher Operating Costs

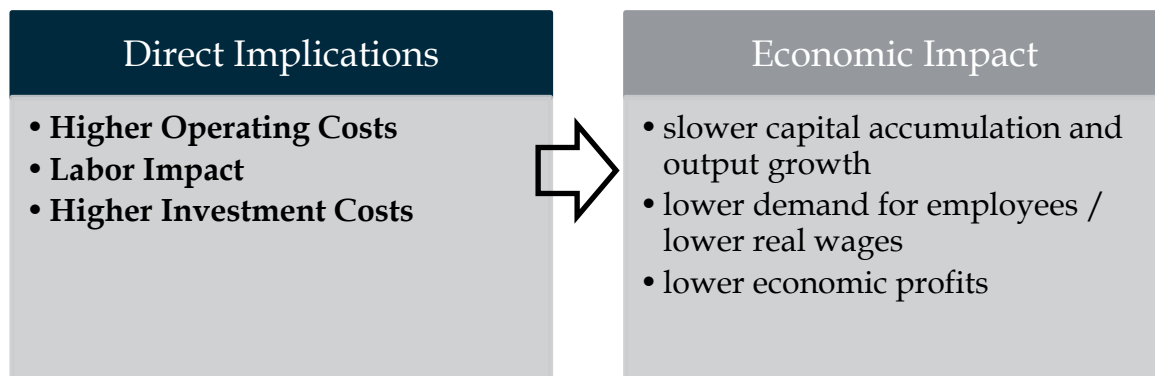
The survey and literature review indicated that there would likely be an additional financial burden placed on firms due to the new reporting standards. These costs encompass expenses such as bookkeeping, compliance with regulations, database management, equipment procurement, and staff training. With these constituting additional overhead expenses on a given level of output, this implies a higher overall cost for producing each unit of a firm's output.

Labor Impact

The new reporting standards are also likely to impact labor requirements for firms. This relates to the need for additional personnel in areas like legal, accounting, finance, and administrative support. As with the cost shocks, these higher labor costs are typically considered overhead expenses and add to the cost of producing each unit of output.

Higher Investment Costs

The introduction of higher required rates of return (RROR) for potential investors and lenders makes capital more costly for affected firms. This leads to a lower level of investment in these companies, as previously profitable investments may no longer be economically viable at the margin.



Economic Impact

The repercussions of these changes extend beyond individual firms, affecting the entire economy.

Jobs and Income

The lower investment by firms leads to slower capital accumulation and output growth, and so also to lower demand for employees. According to the simulation scenario and shocks, this could translate to a deviation in full-time equivalent (FTE) employment in 2024 of -0.019% (around 27,000 less FTE jobs in 2022 levels), peaking at an accumulated -0.055% in 2029 (around 78,000 less FTE jobs in 2022 levels), before starting to rebound as real wage growth slows allowing employment levels to recover.

By 2040, the simulated average real wage is around 0.29% lower than baseline, allowing FTE employment to recover to a level just 0.015% (or around 21,000 FTE jobs in 2022) below baseline. (Note that the specifics of long-term real-wage and employment responses are challenging to predict, so it is best to consider them as a pair of related indicators).

Profits

With lower levels of investment and capital stocks in comparison to the baseline, gross operating surplus (gross, or pre-depreciation, economic profits) are also projected to be lower, cumulatively, by around 0.14% by 2040 relative to baseline levels.

Gross Domestic Product

In the first year after implementing the new rules, the economy's real gross domestic product (RGDP) is simulated to be approximately 0.047% lower than it would have otherwise been. To put this in perspective, this reduction is equivalent to a little over \$12 billion relative to the 2022 U.S. GDP of roughly \$25.6 trillion and flows mainly from (i) a slower growing capital stock resulting from lower levels of investment and (ii) the productivity implication of higher overhead costs in production.

4.2. Detailed View

This subsection describes both the modeling and the results in more detail, including charts. Detailed tables of results can be found in *Appendix 4: Tables of Results*.

Model shocks and assumptions

The intermediate-goods cost shock reflects the survey respondent's assessment of the increased costs associated with tasks including bookkeeping, compliance, database management, equipment, and staff training. For most firms, these items are overheads, not productive inputs. This is equivalent to a negative shock to productivity for these inputs. The bottom-line impact is an increase in the cost of a unit of an impacted firm's products.

The labor shocks reflect the survey respondents' views of the staffing impact of the reporting standards. Additional staffing requirements in areas like legal, accounting, finance, and administrative support create an increase in labor costs. Similarly, as above, for most firms these relate to overheads.

The increase in required rates of return (RROR) by potential investors/lenders leads to an increase in the cost of capital for impacted firms. Higher capital costs lead to a fall in investment in these firms.

The pool of investment finance will shift in response to RROR impacts. However, the increase in RRORs is not offset by improvements in this metric for other firms. That is, the reputational harm to one is unlikely to lead to an improvement in the market reputation of another. Conversely, if higher reporting obligations lead to more informed investors, the uncertainties involved in assessing potential returns on investments may decline – that is, there may be positive impacts on expected rates of return via this channel – this simulation has not attempted to assess or quantify these potential effects and does not speak to the net outcome of any costs and benefits of the board proposal. Therefore, the net impact in the reported scenario is an increase in the average RROR across the whole economy and, as a result, higher average costs of capital for the average dollar of investment. This then leads to adverse effects on aggregate investment.

Our application of the intermediate and labor shocks assumes that the costs of the board proposal are higher in the short term as firm's pass through a period of adjustment. Thereafter, the firms are assumed to carry a permanently higher year-to-year administrative load, although not as high as in year 1 post-reform. Conversely, the RROR shocks are assumed to sustain at 2024 shock levels.

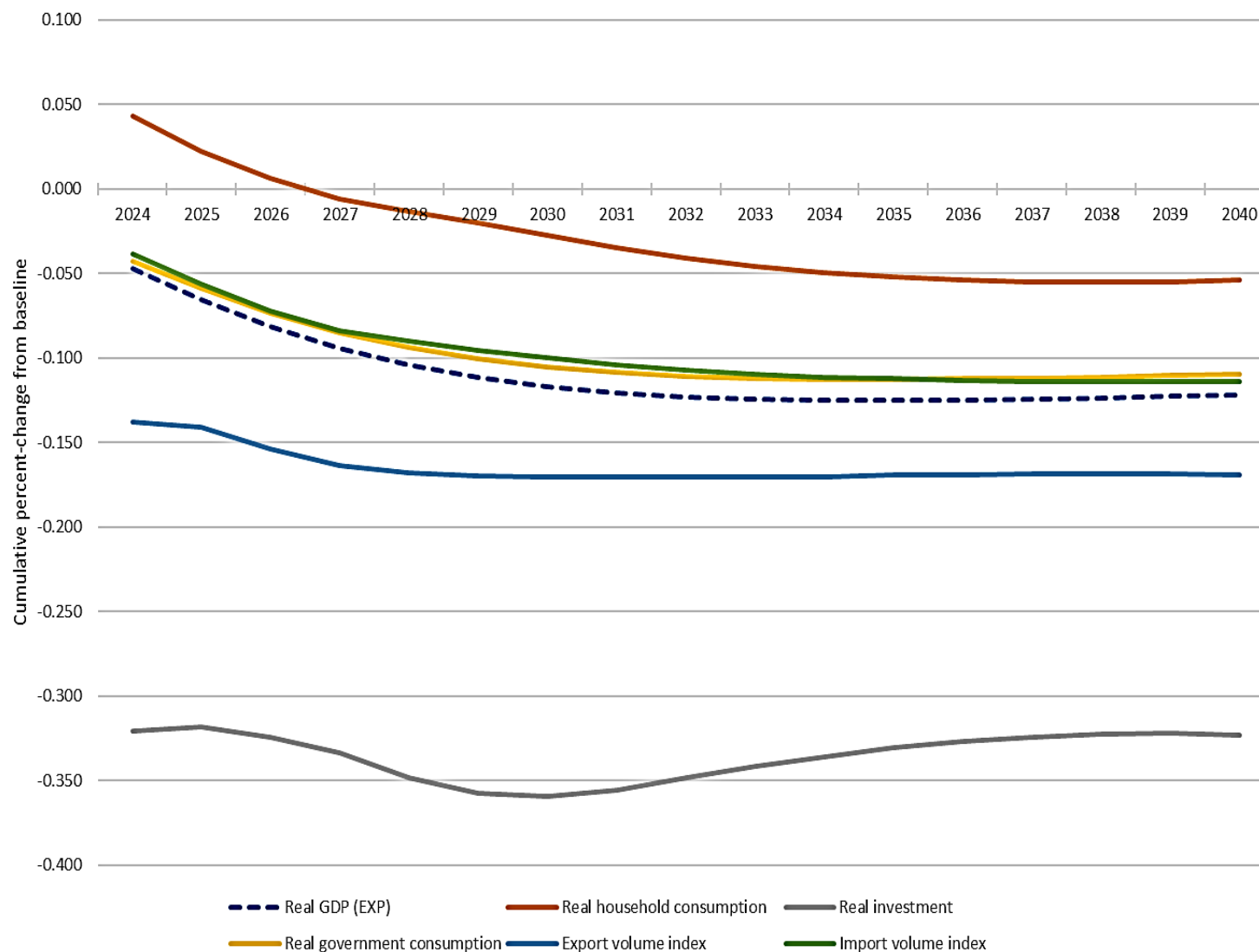
Key simulation results

Macroeconomic numbers from our key simulation are discussed in the charts below, which show the dynamics, i.e., the “path”, of the results. Cumulative results show the accrued or accumulated impacts between 2024 and the year in question.

It is important to note that the data necessary for calculating/estimating shocks for appropriately designed and formulated simulation scenarios of this issue remains scarce at the time of writing. It would require a more extensive study to identify and collect more satisfactory source data. In that vein, this project should be seen as an initial attempt to provide quantitative estimates for the Board proposal's impacts in the US. Our sense is that the shocks applied here should be seen (for now) as upper-bound estimates in the case of the intermediate cost shocks, but in the case of the investment-related shocks as most probably conservative in magnitude. As the investment-related shocks drive most of the impacts, and the data was sourced from another global region, we took an intentionally conservative approach to translating the implications of the various European studies into the cost of capital impacts for simulations in the US context.

The economic model provides a large amount of output data from each simulation, and the economic mechanisms can be complex and challenging to understand for non-expert readers. More detail on these simulations is available from the project team. We present the headline results of the central simulation in a series of charts of key macroeconomic impacts with brief commentary on each below, and in tabular form in *Appendix 4: Tables of Results*.

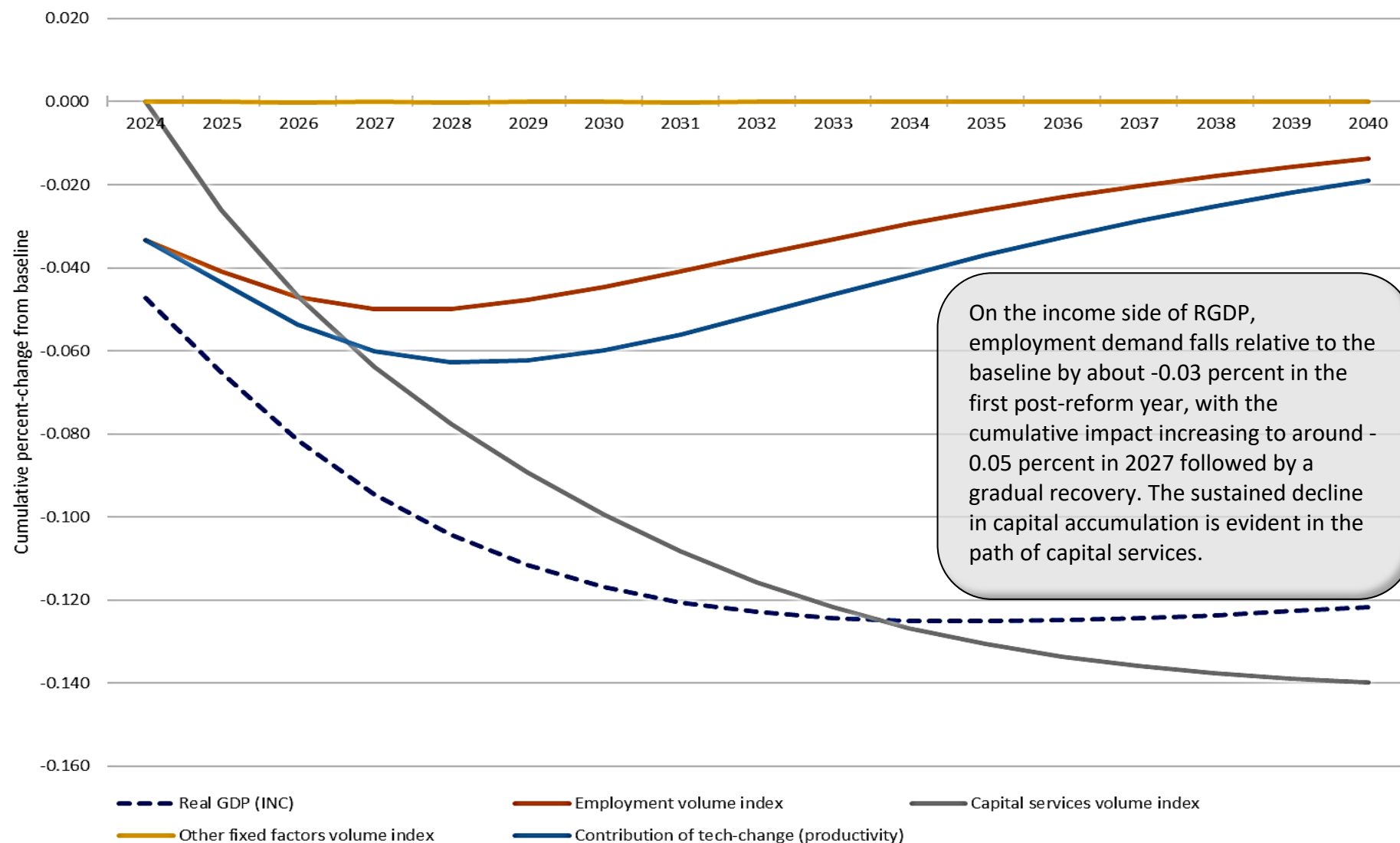
Components of Gross Domestic Product (expenditure side view, constant dollars)



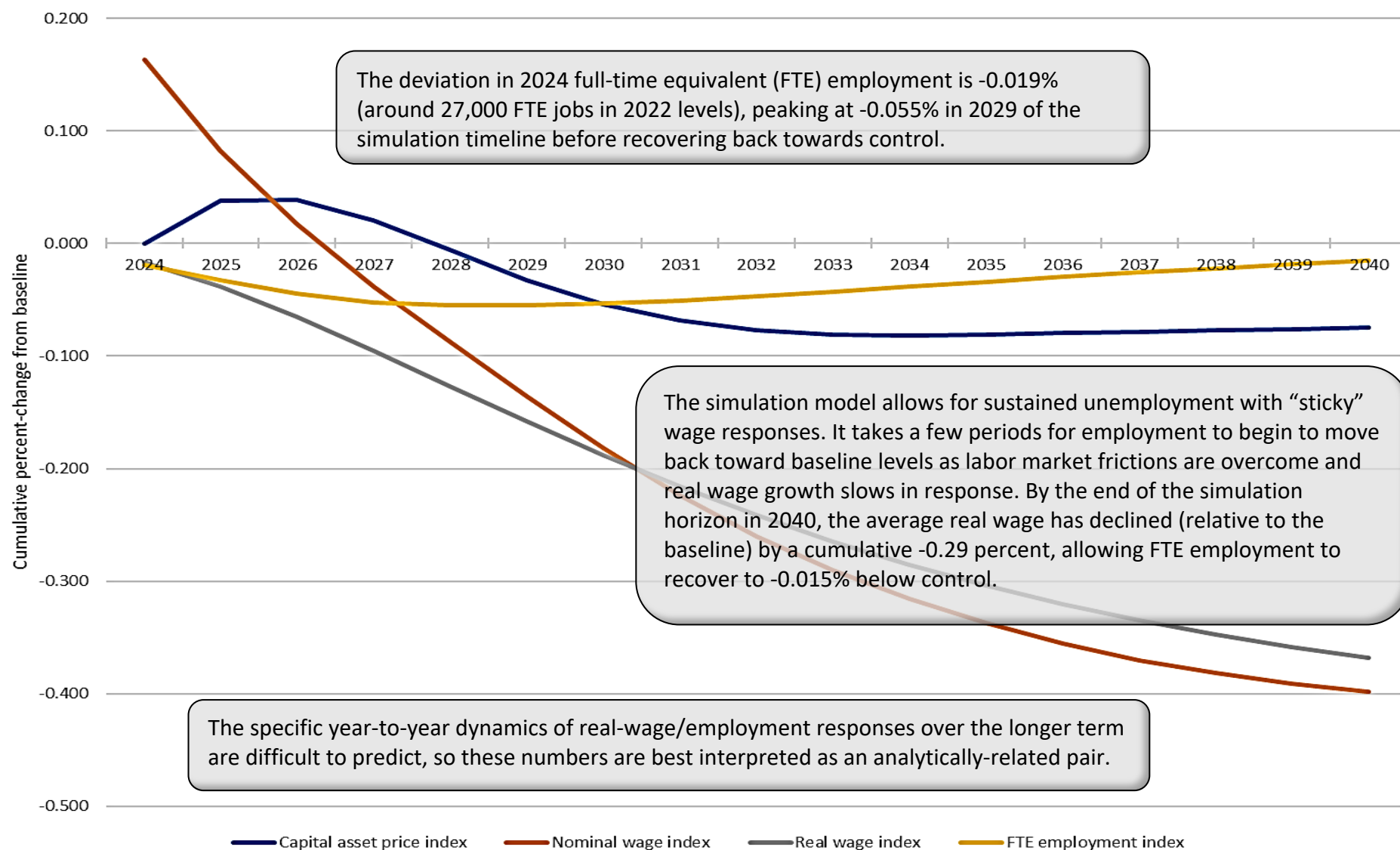
The impact on real gross domestic product (RGDP) is about -0.047 percent in the first post-reform year. This is equivalent to a little over \$12 billion in terms of US 2022 gross domestic product (of around \$25.6 trillion). Thereafter, the permanent productivity shocks and the slower growth rates of industry capital stocks due to higher capital costs lead to further negative year-on-year impacts that accumulate over time.

On the expenditure side of RGDP, investment impacts explain most of the fall, with lower levels of household consumption and imports flowing from slightly lower income levels compared to the baseline.

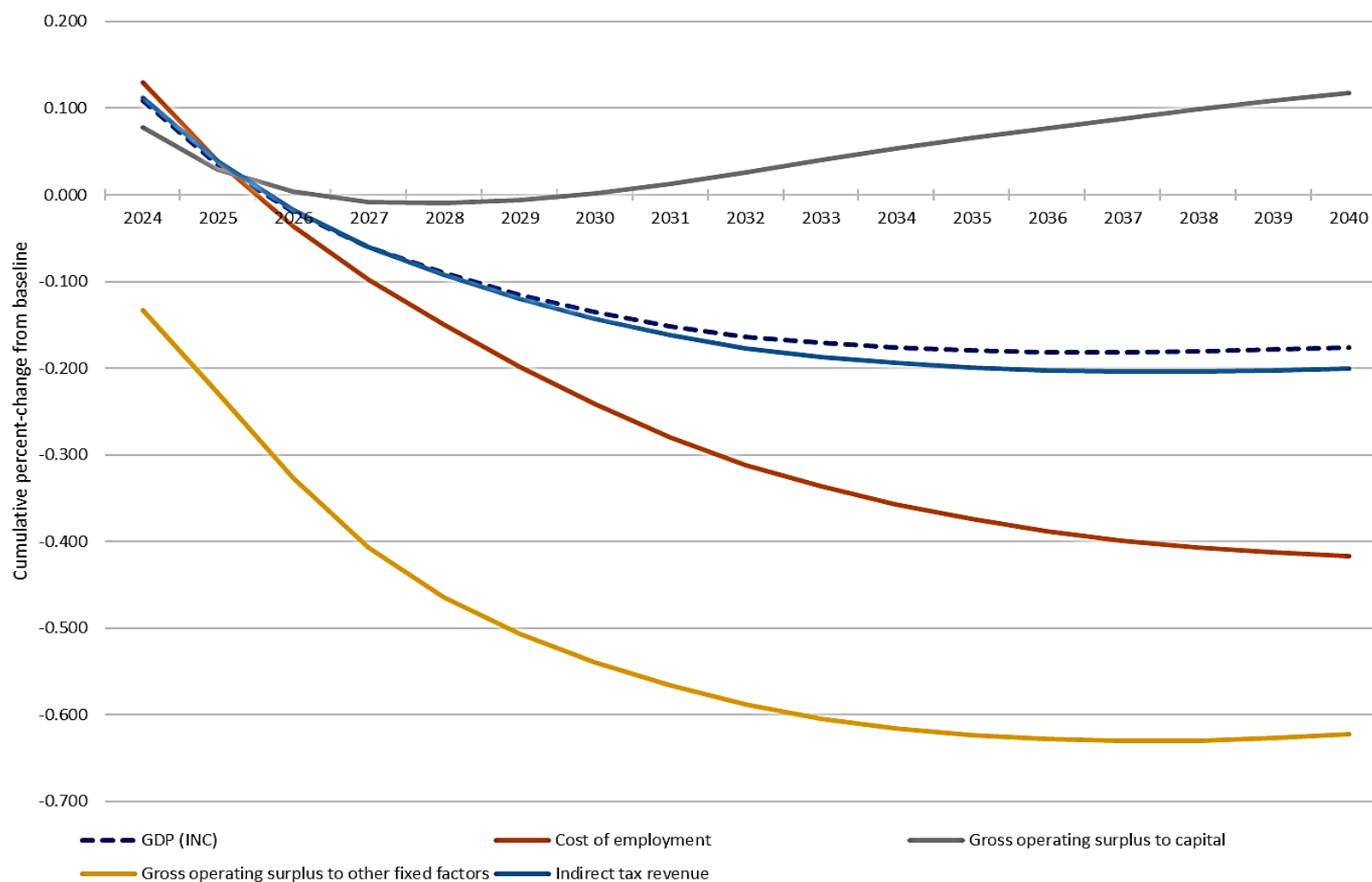
Components of Gross Domestic Product (income side view, constant dollars)



Various Capital and Labor Indexes

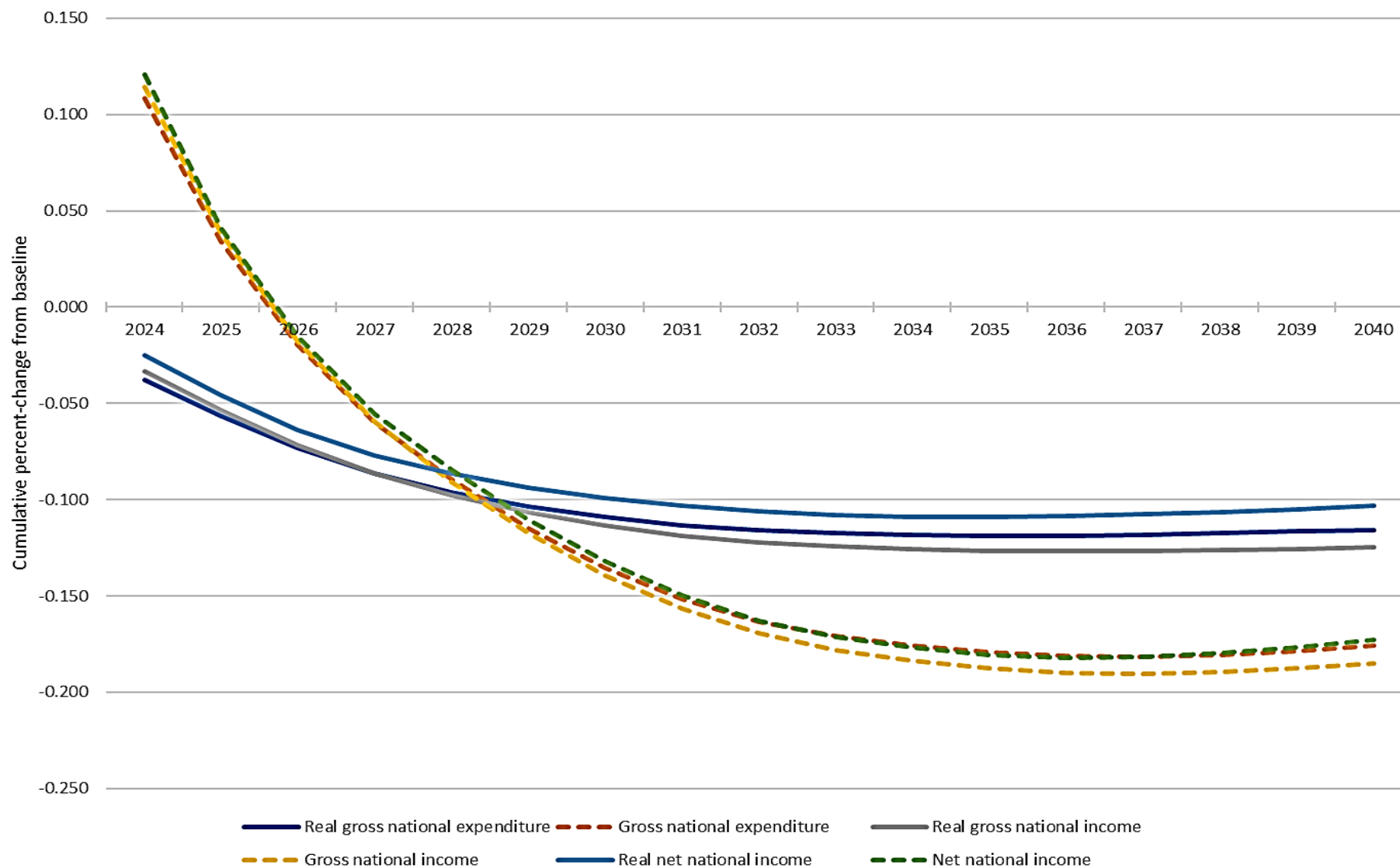


Components of Gross Domestic Product (income side view, current dollars)

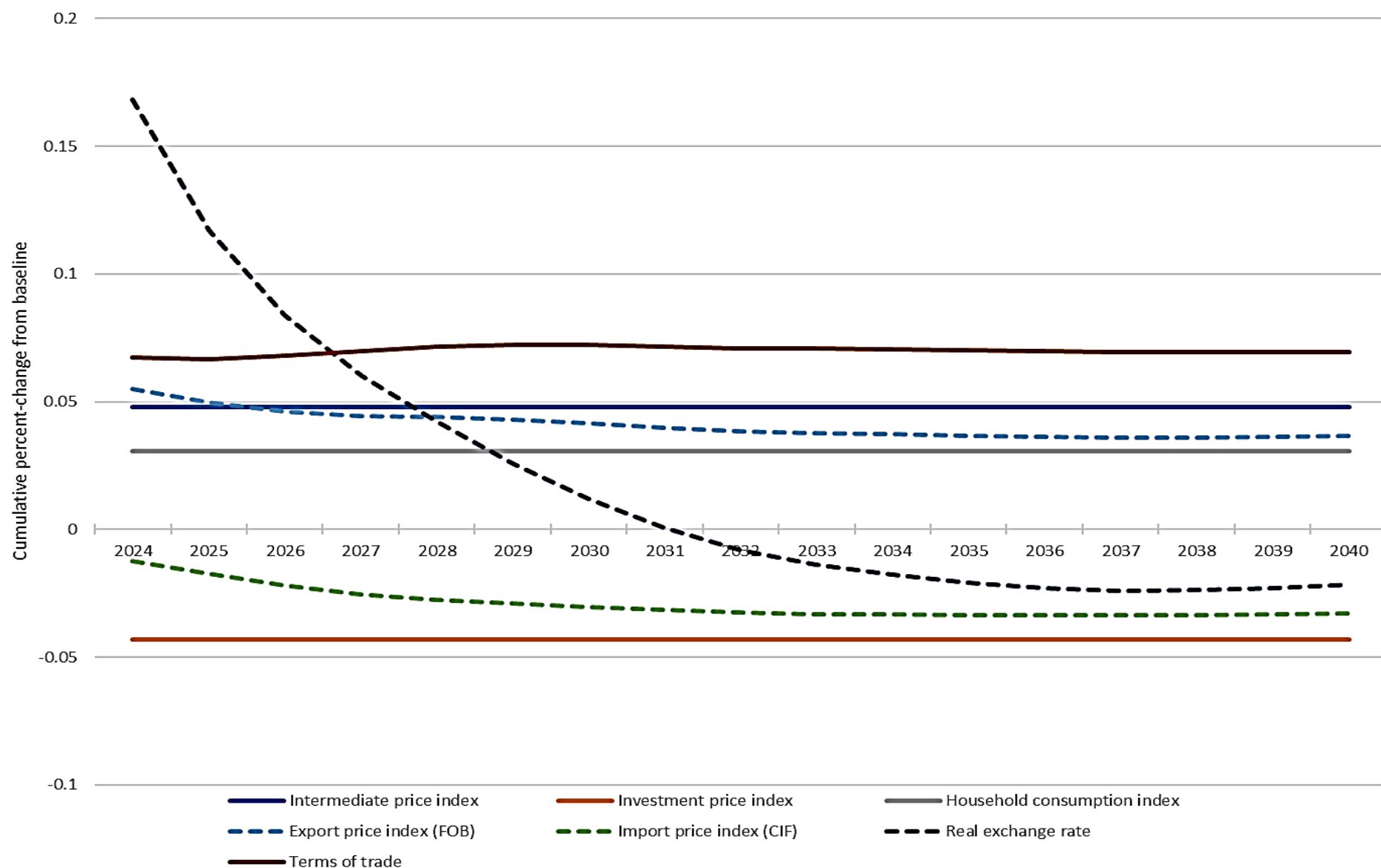


With capital stocks lower compared to the baseline due to lower investment levels, gross operating profits (gross operating surplus) is lower by a cumulative -0.14 percent by 2040

Misc. Macroeconomic aggregates (both constant and current dollars)



Various macroeconomic price aggregates





Appendix 1: Survey Details

Responses were received from 152 firms across 37 broad industry categories. The respondents were people in executive and management roles in related business function areas. They were asked a series of questions regarding their role at the firm and their outlook on the cost impact of compliance with enhanced FASB reporting requirements. Questions included:

- Which of the following best describes your job title / responsibilities?
- How involved are you at your company in each of the following?
 - Accounting strategy / compliance
 - Financial forecasting
 - Hiring decisions
 - Selecting network security software
 - Investor relations
 - Selecting enterprise software providers
 - Diversity / Inclusion efforts
- For accounting purposes, is your company considered a public or nonpublic entity?
- Do you work for a publicly traded company?
- For accounting purposes, is your company considered a public or nonpublic entity?
- What is your specific job title?
- How familiar or unfamiliar are you with:
 - the Financial Accounting Standards Board (FASB)?
 - Generally Accepted Accounting Principles (GAAP)?
 - the proposed GAAP changes requiring increased disaggregation of Income Statement Expenses?
- To the best of your knowledge, will your firm be subject to the proposed GAAP changes requiring increased disaggregation of Income Statement Expenses?
- Generally speaking, do you approve or disapprove of the proposed GAAP changes requiring increased disaggregation of Income Statement Expenses?
 - In a few sentences, why do you approve of the proposed GAAP disaggregation changes?
 - How large or small of a burden will compliance with the proposed GAAP disaggregation changes be for your company?
 - In a few sentences, why do you disapprove of the proposed GAAP disaggregation changes?
- Under today's GAAP rules, approximately how much does your company spend on accounting and compliance across the following categories?
 - Accounting headcount / FTE
 - Software fees / package updates
 - Outside accounting consultation
 - Legal consultation

- Audit preparation
- Training expenses
- Other expenses
- In the first year after these proposed GAAP disaggregation changes are implemented, how much do you estimate your company will spend across the following categories?
 - Accounting headcount / FTE
 - Software fees / package updates
 - Outside accounting consultation
 - Legal consultation
 - Audit preparation
 - Training expenses
 - Other expenses
- What is your company's approximate annual revenue?
- Which of the following best describes the industry your company works in?

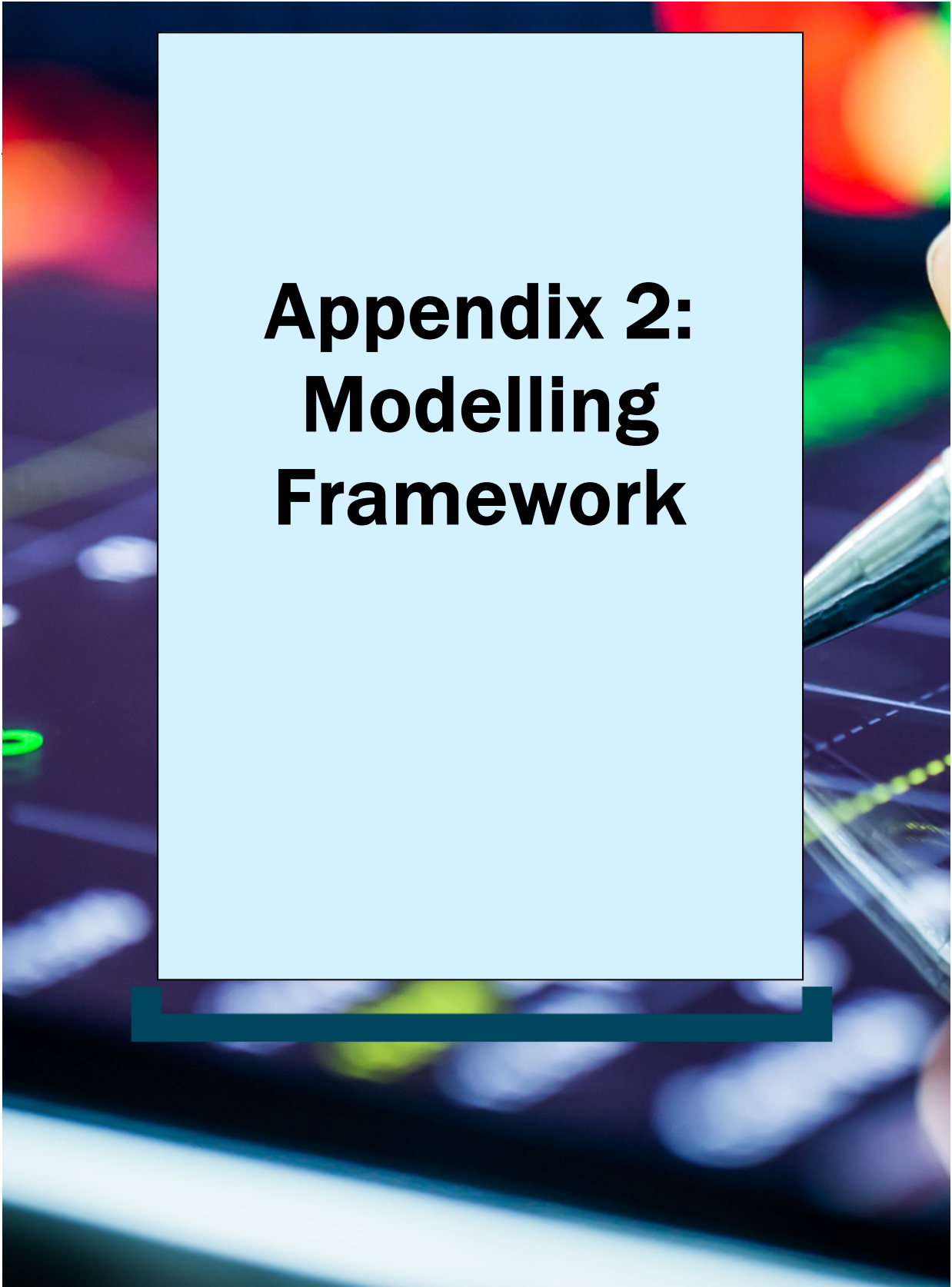
Responses were both qualitative and quantitative, the latter including their estimates of cost impacts on various relevant business functions. Survey results were assessed and analyzed, and various recording or interpretation errors in responses were adjusted where appropriate. For example:

- There were a number of “outliers” that appeared to be the result of entry errors (e.g., before and after numbers were different by a magnitude of 10/100/1000).
- Where the costs were significantly lower ‘after implementation’, we assumed that these were interpreted by respondents as the incremental cost and not the total costs after implementation.
- The reported company revenues were used to understand the coverage of the survey. These were reported as revenue bands. To estimate the overall revenues across the companies surveyed and by sector, the median of each company income band was used.

Overall, the survey indicated significant variations in cost change expectations, with respondents reporting cost impacts ranging from negligible to a 62% increase in costs for the related business functions (see Table 2, on the following page). These cost estimates varied across firms, with no clear pattern across industries or different sized companies. **The average estimated cost increase from the proposed GAAP disaggregation changes, across all respondents and reported business functions and firms surveyed, was 9.9%.**

Table 2: Survey results

Broad Industry	Number of Complying Survey Responses	\$ change (millions) in Accounting and Compliance Costs							% change in Accounting and Compliance Costs	Estimated Revenue from Complying Survey Respondents	Average reported burden (all companies surveyed)
		- Internal Labour	- Software	- Accounting and Audit	- Legal	- Training	- Other	Total Change			
Accounting	3	1.17	1.10	0.26	0.20	1.25	1.40	5.38	61.9%	2,787	A large burden
Agriculture/Fishing	1	0.01	0.05	0.01	0.01	0.007	0.00	0.08	47.2%	37	Somewhat of a burden
Retail/Wholesale trade	4	2.80	6.40	1.65	0.20	0.25	0.05	11.35	45.4%	6,750	A large burden
Construction	2	0.06	0.90	0.08	0.01	0.03	0.00	1.09	42.0%	1,125	A large burden
Advertising	5	1.51	4.00	1.51	2.01	3.00	0.00	12.03	37.4%	5,200	Somewhat of a burden
Insurance	5	2.57	1.78	2.05	0.11	0.12	0.06	6.70	25.9%	4,932	Somewhat of a burden
Manufacturing	16	2.73	2.10	3.49	0.59	0.87	0.20	9.97	22.2%	21,775	Somewhat of a burden
Printing Publishing	1	0.00	0.10	0.10	0.15	0.00	0.00	0.35	21.9%	175	Somewhat of a burden
Education	2	0.35	0.21	0.34	0.11	0.02	0.00	1.02	18.6%	2,750	A small burden
Fashion/Apparel	1	0.10	0.00	0.01	0.00	0.01	0.00	0.11	17.7%	750	A large burden
Marketing	1	7.00	25.00	4.00	2.00	1.00	2.00	41.00	16.3%	375	A large burden
Information Technology/IT	11	4.46	0.61	1.91	1.12	1.34	0.76	10.20	16.2%	14,742	A large burden
Other	1	0.00	0.00	0.04	0.00	0.00	0.00	0.04	15.2%	175	Somewhat of a burden
Chemicals/Plastics/Rubber	1	0.20	0.00	0.10	0.05	0.03	0.00	0.38	12.2%	2,000	Somewhat of a burden
Healthcare	12	1.27	0.89	1.11	-0.03	0.04	2.01	5.27	12.1%	10,710	Somewhat of a burden
Pharmaceuticals	4	0.08	0.03	0.03	0.01	0.02	0.00	0.17	12.0%	2,387	Somewhat of a burden
Food/Beverage	2	0.10	0.01	0.05	0.02	0.01	0.00	0.18	10.6%	55	Somewhat of a burden
Consulting	2	0.00	0.00	0.05	0.00	0.01	0.00	0.06	7.8%	2,375	Somewhat of a burden
Transportation	1	0.13	0.10	0.03	0.02	0.01	0.00	0.28	7.3%	175	A large burden
Bio-Tech	4	0.43	0.11	1.33	0.36	0.36	0.25	2.82	6.6%	2,385	Somewhat of a burden
Computer Software	7	0.40	0.05	0.23	0.05	0.02	0.01	0.76	6.4%	7,712	Somewhat of a burden
Shipping/Distribution	2	0.24	0.00	0.00	0.05	0.00	0.00	0.29	6.0%	4,000	A large burden
Consumer Packaged Goods	2	5.00	2.15	10.10	0.00	0.10	0.00	17.35	5.6%	2,750	A large burden
Media/Entertainment	6	1.05	2.00	3.00	0.50	0.55	0.00	7.10	5.5%	9,125	A large burden
Banking/Financial	28	4.81	6.46	5.98	1.24	1.19	0.13	19.81	4.1%	44,280	Somewhat of a burden
Hospitality/Tourism	2	0.10	0.05	0.05	0.03	0.00	0.03	0.25	3.9%	1,125	A large burden
Energy/Utilities/Oil and Gas	7	0.14	0.51	0.53	0.01	0.12	0.10	1.41	3.4%	10,825	Somewhat of a burden
Internet	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.1%	2,000	A large burden
Engineering	1	0.10	0.00	0.05	0.00	0.00	0.00	0.15	2.6%	2,000	Somewhat of a burden
Real Estate/Property	2	0.00	0.00	0.10	0.00	0.00	0.00	0.10	1.8%	4,000	A large burden
Market Research	1	0.00	0.01	0.01	0.00	0.00	0.00	0.02	1.4%	37	Somewhat of a burden
Telecommunications	1	0.00	0.00	0.00	0.02	0.00	0.10	0.12	1.3%	2,000	Somewhat of a burden
Non Profit/Social services	2	0.02	0.00	0.00	0.00	0.00	0.00	0.02	1.2%	182	Somewhat of a burden
Automotive	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	2,000	A large burden
Brokerage	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	7	Somewhat of a burden
Computer Hardware	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	2,000	Somewhat of a burden
Consumer Electronics	1	0.00	0.00	0.01	0.01	0.00	0.00	0.02	0.0%	2,000	Somewhat of a burden
All companies	145	36.81	54.60	38.17	8.82	10.33	7.10	155.83	9.9%	177,708	Somewhat of a burden



Appendix 2: Modelling Framework

The GSMUS3 model is the current incarnation of a suite of models developed for a variety of US government agencies over the last 20 years, including the well-known USAGE model operated by the United States International Trade Commission (USITC), the International Trade Administration (ITA) in the Department of Commerce, and the Economic Research Service (ERS) in the U.S. Department of Agriculture (USDA)). The USAGE model was co-authored by the project lead on the study conducted for this report.

GSMUS3 explores how the entire economy adjusts over time to changes in policy settings or shifts in the economic environment. It captures the interlinkages between industries, households, government, workers, investors, etc. ('economic agents') and the emissions associated with production and consumption.

The GSM suite of models has been applied in the development, assessment, and analysis of a large range of US national and sub-national policy reforms. In addition, variants of this modeling suite have also been developed for over 30 countries outside of the US and have been applied in policy analysis and development for a wide range of policy and economic matters around the world.

The GSM3US database is built on official US statistics from sources like the BEA, BLS, Congressional Budget Office (CBO), Environmental Protection Agency (EPA), Department of Energy (DoE), Treasury, and others. The industry and product structure is built on the BEA 71-order input-output tables, expanded to 115 sectors/products to include enhanced detail in areas like agriculture, energy, manufacturing, and utilities.

The model's database and equations cover a comprehensive range of economic variables and include a range of dynamic (time-related) mechanisms that allow year-to-year forecasting and deviation analysis to be conducted. The model offers flexibility for experimental design, with a flexible closure (see below) capability and the ability to conduct both comparative-static ("what-if" style) and dynamic analysis.

The closure of a CGE model refers to the elements that we tell the model about (**exogenous variables**) and those which we want the model to tell us about (**endogenous variables**).

In our modelling suite, the closure setting options provide great flexibility, allowing us to incorporate a wide variety of inputs into simulations depending on the availability of data in a particular country, often including expert speciality forecasts from official or other expert sources.

We can adjust the closure assumptions from year to year, depending on the policy simulations we are considering. There is no need, for example, to assume full employment in all years.

The **deviation or 'policy' simulation** is the run that includes the shocks for the economic or policy experiment itself. The number of shocks can vary from a single shock to dozens or hundreds of shocks.

The results are reported as deviations – that is, as the difference between the baseline rerun results and the policy simulation results for each variable. This enables us to report results that capture only the impact of the experimental shocks themselves.

The policy simulation closure looks much more like a ‘standard’ economic closure. By this we mean that if we were to write down an economic model’s equation in a standard theoretical manner, most of the left-hand side variables would be endogenous in the deviation simulation.⁸

Closure choice, across all simulation types, reflects choices about the economic environment and normally goes beyond a simple assessment of matching exogenous variables with shocks.

GSMUS3 is built and run in the GEMPACK software suite.⁹

CGE models are commonly used tools for policy analysis. Such models typically consist of:

1. A **database** that represents an economy in a certain year based on input-output (IO) tables. The database specifies the interactions and relationships between various economic agents including firms, workers, households, the government and overseas markets.
2. Behavioural **parameters** governing agents’ responses to relative price changes (e.g., elasticities).¹⁰
3. A **system of equations** that define the model specification or theory, which is generally based on standard economic assumptions¹¹, but not necessarily constrained by them (for example, in the always-and-everywhere attainment of equilibrium after shocks are imposed).

⁸ There are some exceptions: for example, if a path has been endogenously generated for a certain productivity metric in the forecast, these results might be used as shocks in the deviation simulation if we believe that the nature of the experiment does not lead to additional productivity change. However, sometimes the deviation experiment does require further accommodation of shocks by productivity shifts, in which case we would leave it endogenous and report the difference between the baseline and deviation experiments.

⁹ See Horridge et al (2018).

¹⁰ We rely on published studies for elasticity estimates to calibrate GSMUS3. Elasticities are set at values widely understood to be valid in the modeling community and can be replaced by country- or industry-specific estimates where available for specific projects.

¹¹ These include, for example, consumers maximize their utility subject to their budget constraints; firms maximize their profits by buying intermediate goods and inputs (labor and capital) and selling outputs to other domestic and international firms, households and government; there is a market for each commodity (final and intermediates) and in equilibrium market prices are such that demand equals supply in all input and output markets; and under the standard assumption of constant returns to scale firms earn zero pure profit. Alternative theoretical specifications can be incorporated as required.

From an initial equilibrium where demand equals supply in all factor, final demand, and intermediate input markets,¹² the system is then ‘shocked’ by changing one or more variables that represent a policy change or other change in economic conditions.

By comparing the pre- and post-shock databases, we can then observe the effects of the shock in question in terms of changes to GDP, employment, wages, industry output, etc.

Core dynamic features of include ‘sticky wages’ labour market adjustment, capital accumulation based on expected rates of return, the accumulation of net foreign liabilities to fund current account deficits, and public sector debt that accounts for fiscal deficits over time.

Static CGE models consider only ‘before’ and ‘after’ the policy shock. There is no ability to consider the nature of the adjustment path between equilibria.

A dynamic CGE model allows the user to examine in each intervening period (usually each year) how variables adjust from the time when a shock is implemented to the time when all its effects have worked through the economy (which may be several years).

GSMUS3 contains four key **dynamic mechanisms** that link successive years:

1. The deviation in the real wage rate away from its forecast path in year t caused by a policy shock equals the deviation in year $t-1$ plus a term reflecting the gap in year t between the employment deviation and the deviation in labour supply. That is, real wages deviate from the baseline based on the gap between the changes in the labour supply and employment caused by a policy shock.

Real wages are sticky in the short term, meaning labour market impacts are felt more through changes in employment. Further out in the projection period, employment gradually returns to the baseline, meaning impacts are more commonly seen through real wage changes.

2. Capital at the start of year t equals capital at the end of year $t-1$.

Capital stock in an industry at the end of year t equals the capital stock at the start of year t , depreciated at a given rate, plus investment in year t for that industry.

Investment in year t for an industry is a function of the expected rate of return (i.e., gross operating surplus) in that industry. The expected rate of return is a function of the

¹² This is true in both a theoretical and real-world sense. For example, goods market clear because the macroeconomic accounting used in these models accommodates inventory accumulation (or decumulation), and labor markets allow for structural unemployment and other factors that allow something like a NAIRU to act as the market-clearing condition.

rental and asset prices of that industry's capital in year t , depreciation, taxes on capital, and expected changes in those variables.¹³

3. Net foreign liabilities at the start of year t equal net foreign liabilities at the end of year $t-1$. Net foreign liabilities at the end of year t equal net foreign liabilities at the start of year t plus the current account deficit for year t .

The current account deficit for year t is imports less exports plus interest payments for foreign liabilities less exports of royalties, and less net transfers from foreigners to US residents.

4. Public sector debt at the start of year t equals public sector debt at the end of year $t-1$.

Public sector debt at the end of year t equals public sector debt at the start of year t plus the public sector deficit for year t .

The GSMUS3 model is generally solved in recursive dynamic mode, as this has clear advantages in terms of (for example) realistic behavioural responses that can include errors in expectations.

We can also conduct comparative static analyses of both short- and long-run timeframes, along with (much less frequently) forward-looking or 'rational expectations' dynamic simulations that capture anticipation effects but that impose arguably unrealistic 'clarity of foresight' assumptions on simulation output.

Impacts estimated from elements of the survey results were combined with official economic statistics and empirical outcomes from relevant overseas studies and were then translated into model-consistent shocks in industry-specific impacts on intermediate input costs, labor costs by occupation, and impacts on required rates of return for investment.

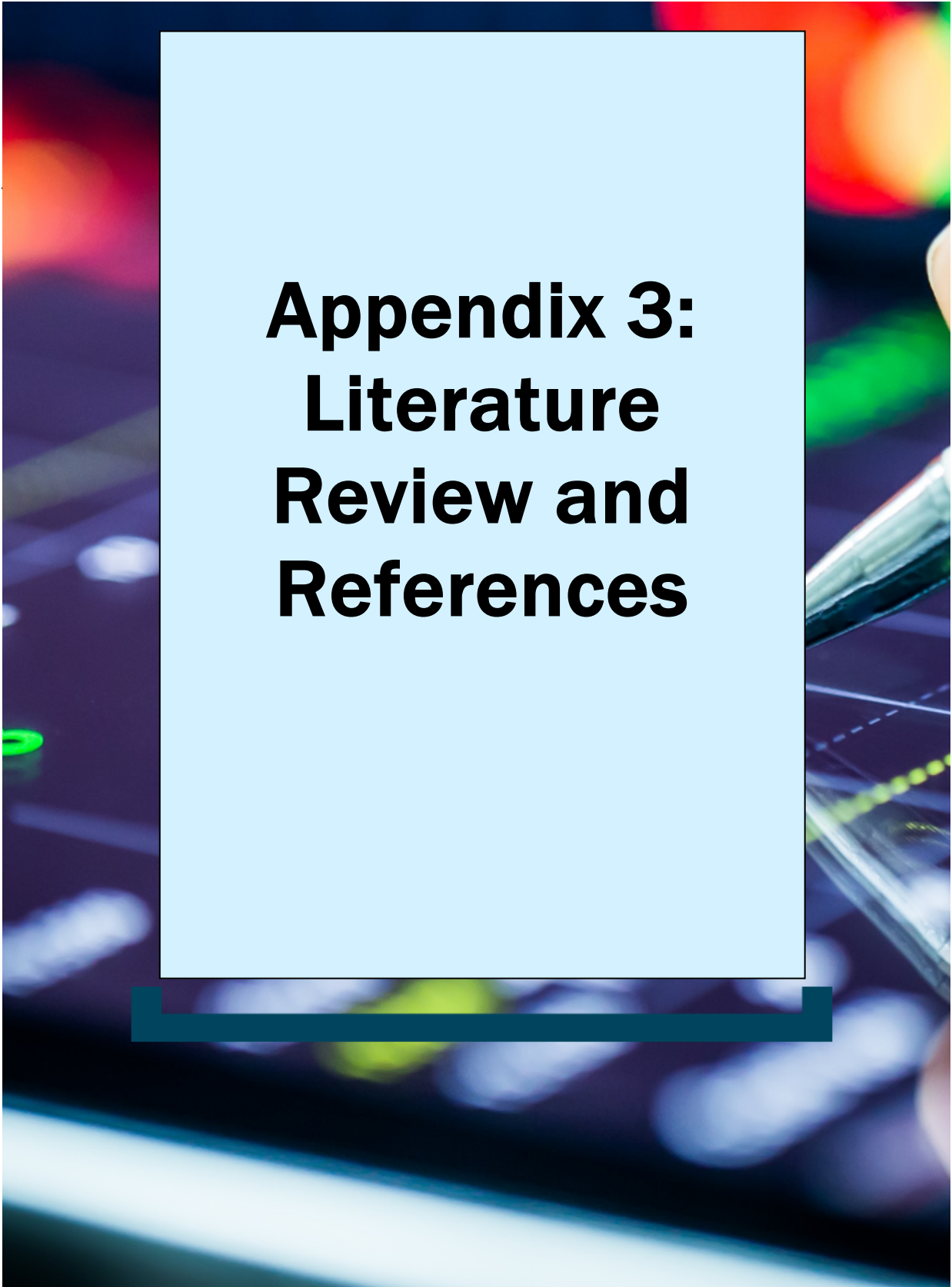
The model's database uses the latest available BEA IO data for 2021 and a large range of other official data from economic accounts in that year including the balance of payments, international trade, government finance (including taxing and spending), labor market and occupational, and many others. The baseline forecast is informed in part by a variety of official US government forecasts: for example, near-term macroeconomic projections are developed using the long-term economic projections released from the CBO. The baseline forecast underpinning this project was run year-by-year from 2021 to 2040.

The deviation simulation – the simulation including the policy reform shocks - runs year-by-year from 2024 to 2040, in a sense re-computing the baseline simulation *but* with the imposition of

¹³ A novel feature of GSMUS3 is the inclusion of "slack capital" capabilities for dynamic projections using nested complementarity relationships. This allows for endogenously determined proportions of productive capital stocks and other "fixed" factors (like land and other natural endowments) to become idle at low rates of return during periods of falling demand. Along with the labor market treatment described above, the modelling suite is capable of more realistic dynamic simulations through the business cycle, tempering a standard dynamic CGE tendency to create unrealistically fast recoveries from downturns in response to low primary factor prices.

the policy shocks. The deviation – i.e., the difference in results between the two simulations – thereby provides an estimate of the impact of the shocks on the structure and growth path of the US economy at the macroeconomic and industry / product level, and for thousands of related economic variables.

More details are available from the project team.



Appendix 3: Literature Review and References

Literature Review



How do investors value the publication of tax information? Evidence from the European public country-by-country reporting

In this 2021 report, Müller, Spengel and Weck examined the impact or investor reaction to the European Country-by-Country Reporting (CbCR) regime. Overall, they found that investors indicated that the reputational risks and competitive disadvantages associated with this additional transparency outweighed the benefits associated with the access to extra information and the potential for more sustainable taxation strategies. This was reflected in their estimate that the announcement of the reform led to a fall in the cumulative average abnormal return (CAAR) of 0.699%. Interestingly, the

negative impact was greater for firms reporting low effective book tax rates and those operating in a more competitive environment.

The Bid to Impose “Tax Reporting Standards” on American Employers

Pete Sep examines the FASB proposed public CbCR in the US (2023-ED100) on behalf of the National Taxpayers Union. His key conclusions are that:

- Complying with public CbCR rules are costly in both time and money for multinational businesses – this is because of the significant differences in tax and financial reporting and reconciling these for a public reporting regime will be difficult and costly. Sep refers to one submission to the FASB from a hotel company that estimated the audit costs alone would be 30% higher. Further costs are expected in internal financial monitoring to check whether a firm’s activities in each jurisdiction remains under or over the threshold for disaggregating tax burdens.
- This reporting would present stakeholders with an incomplete look at a country’s tax treatment - this is because of jurisdictional differences in tax codes and accounting standards make it difficult to understand and compare tax treatments. Further complications arise in trying to explain the different bilateral tax agreements and transfer pricing arrangements in public disclosures without risking disclosure of sensitive government and company data. Sep also argues that there is questionable utility in all this information to investors suggesting “quantity ... may not be better than quality”.
- The requirements would harm investors and the economy more broadly, through losses in the value of investments – Sep drew on Müller, Spengel and Weck’s study (above) to re-



iterate that there are costs beyond the operational costs imposed by a CbCR regime, often impacting the returns to investors.



Tax strategy disclosure: A greenwashing mandate

In 2022, Bilicka, Casi, Seregini and Stage investigated whether mandating qualitative tax disclosures led to intended outcomes (more useful tax information and a reduction in tax avoidance). For this, they examined the impacts of the 2016 UK reform that required the disclosure of tax strategies for firms over a certain size threshold. They found that, while firms tended to disclose more information in their annual reports, it was a quantity not quality effect. The firms tended to add information to show that they were a “good tax citizen.” There was no significant impact on tax avoidance practices.

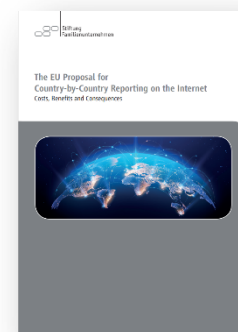
The EU Proposal for Country-by-Country Reporting on the Internet Costs, Benefits and Consequences

An analysis of the implications of CbCR was developed by ZEW – Leibniz Centre for European Research in 2020. This analysis focused on the potential costs and benefits of a CbCR and found that the costs were likely to exceed the benefits.

The study found that the costs not only include direct costs of first-time implementation and ongoing reporting, but also potential implicit costs. These implicit costs are in the form of unwarranted damage to a company’s reputation, compromised tax confidentiality, a higher risk of double taxation and the threat of competitive or locational disadvantages if the CbCR obligations are not applied across the board.

The authors also indicated that the purported benefits were questionable.

- They believe that any additional information that the CbCR data provides to tax authorities and legislators would be limited, with the majority of the tax-planning measures adopted within the law and already public knowledge. The empirical evidence on the CbCR for EU financial institutions indicates that companies have changed the way they plan their taxes in response, however, there is no evidence that this has led to an overall reduction in tax avoidance. As an additional cost, there has been evidence of the re-allocation of capital expenditure and employment to low-tax countries, and of attempts to avoid reporting obligations by reducing revenues at the margin.
- They also believe that it is difficult to predict how CbCR data will benefit capital markets, as investors and analysts already have a lot of detailed information. Indeed, they believe that it is possible that given there is already so much information available, investors and analysts may be unable to process any additional data.



- In terms of the public, in addition to a likely lack of expertise to properly interpret the data, the authors question whether generating public pressure is the right way to influence company tax planning. Studies of other tax transparency measures show that, while the public have a more negative view of companies with reported tax minimization measures, there is little evidence that this affects consumer buying behavior.
- Further, while there is more information provided as a result of CbCR, it is believed that the inconsistent methods applied in the preparation of reports can limit the comparability and meaningfulness of the data for all users.



Do Investors Value Corporate Tax Return Information? Evidence from Australia

This paper by Shannon Chen, released in 2017, examined how the 2013 law change in Australia requiring public disclosure of corporate tax items by the national tax office were perceived to impact the country and whether these disclosures were of value to investors.

Chen found that investors expected an overall benefit from reduced information asymmetry and improved monitoring of company tax across the board. However, there was a small negative market reaction to firms that were likely to face increased scrutiny.

While there was an expectation of benefits, there was no evidence of actual benefits once the first report was issued. He found no significant market reaction to the report itself, which he interpreted as indicating that the information had little incremental value to investors. He also found, using limited time series data, that there was no evidence that firms reduced their tax avoidance behavior because of the change in reporting requirements.

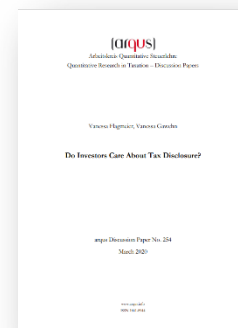
Do Investors Care about Tax Disclosure?

A more recent paper by Flagmeier and Gawehn (2020) examined investor reactions to a potential introduction of public CbCR in Europe. In contrast to the Australian public disclosure reform, the European institutes CbCR required all multinational institutions with their headquarters in Europe to disclose six financial statement items on a country-by-country basis.

Some key observations included:

Investor Perceptions

- Investors generally saw CbCR as beneficial, but this perception varied among different types of companies.



- Large international European companies experienced a negative market impact compared to smaller or domestic firms.

Impact on Firms

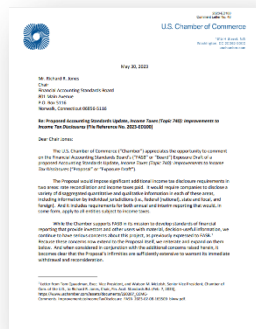
- If investor's view CbCR as burdensome, firms might take actions to avoid these regulations.

Benefits of CbCR

- Hanlon (2005 and 2018) discussed potential benefits, including increased transparency of a company's geographic activities, better understanding of business units and turnover, and more efficient allocation strategies.
- Investors benefit from increased transparency as it helps them predict future cash flows.
- CbCR can prevent managers from using complex financial strategies to extract excessive profits from companies.

Potential Costs of CbCR

- Costs include creating efficient reporting processes, expenses related to tax disputes, additional tax costs, and potential damage to a company's reputation.
- It is unclear whether the benefits outweigh the costs, making it an empirical question of how investors evaluate public CbCR.



U.S. Chamber of Commerce submission to the Proposed Accounting Standards Update: Improvements to Income Tax Disclosures

In its submission to the FASB, the U.S. Chamber of Commerce highlights their view that the reforms would involve significant costs to firms, with little improvement in the public decision-making data available.

- The Chamber indicates that “the implementation of the Proposal’s income tax disclosure requirements would impose substantial costs on companies, many of which will have to hire additional employees to compile the rate reconciliation table and implement new procedures and controls over the process.”
- The Chamber also argues that the complexity of tax laws across jurisdictions, the availability of different tax credits or arrangements with other countries, and different tax measurements can all limit the usefulness of detailed tax disclosures. “Disclosure of the granular information as proposed—both quantitative and qualitative—would not be decision-useful because understanding it would require much more extensive context and time-series (multi-year) information than can or should be provided in GAAP footnotes. Simply put, the proposed income tax disclosures would raise more questions than they answer.”

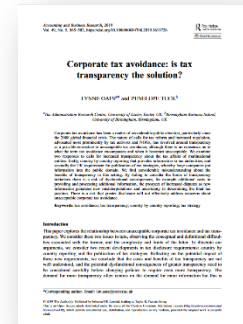
Corporate tax avoidance: is tax transparency the solution?

Oats and Tuck investigate the idea of increased tax transparency as a possible corrective to unacceptable tax avoidance in their 2019 paper.

They find there is quite a mix of views about the benefits of transparency. While transparency can address the asymmetric aspects of information, there are also concerns that too much information can lead to confusion and uncertainty.

In addition to potential benefits, there are also costs associated with greater transparency, such as significant additional costs in providing and processing additional information, unintended behavioral changes, and the potential for misinterpretation and uncertainty in determining the final tax position.

- Compliance costs for firms will be higher as they gather, frame and disclose additional information to wider audiences, and respond to different tax authorities and increased scrutiny. There will also likely be one-off costs for new systems and processes to integrate the required tax data within their organizations. There will also be additional costs to society as tax authorities face additional processing and auditing requirements.
- The authors also note that transparency requirements may lead to changed behavior, but not necessarily in the way supporters of the reform expect. There is a risk that greater disclosure will not effectively address concerns about unacceptable corporate tax avoidance, but simply be a way for companies to provide overwhelming detail that obscures underlying activities.



On the determinants and effects of corporate tax transparency: Review of an emerging literature

This 2020 paper summarizes emerging literature on corporate tax transparency. One of the areas it looks at is the impact of increased tax transparency on firms and their stakeholders.

Key findings around the costs and benefits of increased transparency include:

- CbCR data may provide additional country coverage data that improves existing profit shifting information. However, this usefulness may be limited by the incomplete nature of the required data and issues with comparability across reports. Future research is needed with more complete data sets to better understand whether CbCR or similar data requirements are beneficial.

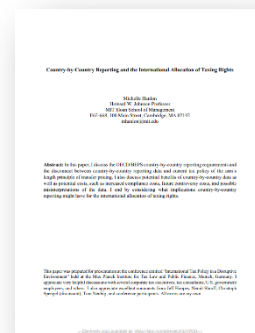
- The report showed that there was evidence indicating that firms try to prevent falling under additional disclosure rules because to comply is costly.

- In terms of tax avoidance, there was some evidence of firms adjusting their tax planning strategies. However, most showed no conclusive evidence of overall improvement in the level of tax avoidance. On the other hand, some more recent studies showed that firms responded by changing the nature of their activities instead (e.g., location of investments and employment), showing some of the unintended consequences of transparency mandates.
- The authors also examined the impact of additional data on users of this information. In terms of investors, the research examined in this study focused on changes in stock prices, which only capture the aggregate costs and benefits that investors expect. Also, while there was some evidence (through surveys and experiments) that showed that more transparency around corporate tax planning can negatively impact a consumer's perception of a firm, there is no evidence that this affects their consumption choices.

Country-by-Country Reporting and the International Allocation of Taxing Rights

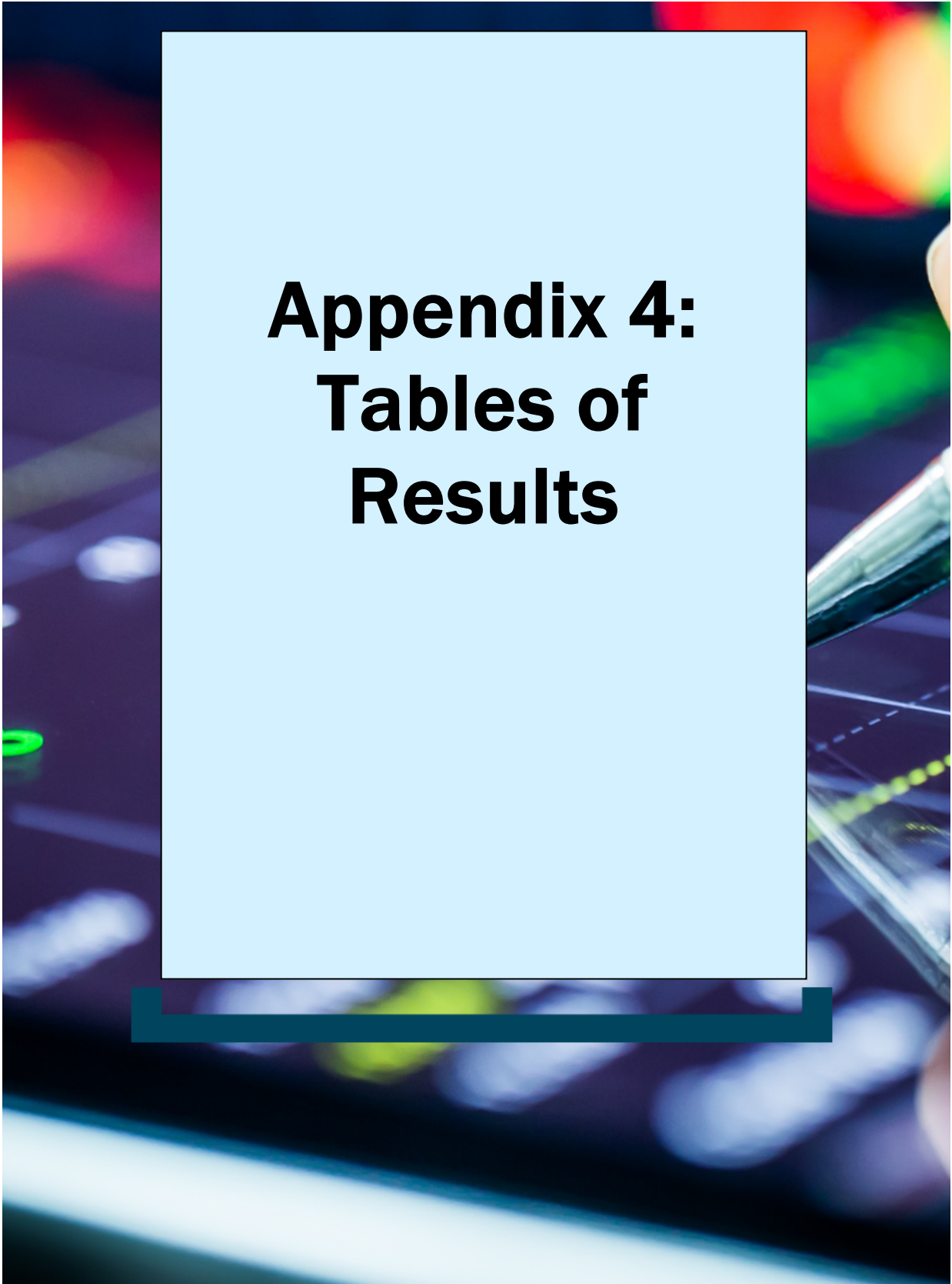
Hanlon (2018) examines, among other things, the potential costs and benefits of country-by-country data based on the OECD's CbCR proposal in Base Erosion and Profit Shifting (BEPS) Action Plan. Potential benefits of CbCR might be (1) tax authorities may gain a better understanding of a company's transfer pricing strategies, company structure and location of economic activity; (2) greater understanding on the part of the companies themselves, and (3) behavioral responses on the part of companies (either alter where taxable income is reported to better align with economic activity, or move economic activity to where they want to report income).

Potential costs identified by the author include (1) high compliance costs; (2) future controversy costs as authorities in some jurisdictions use the CbCR to incorrectly assess tax; (3) high public relations costs; and (4) potential omissions, limitations and possible misinterpretations of the data.



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Appendix 4: Tables of Results

Table 3: Key Scenario: Various macroeconomic aggregates (cumulative percentage-changes from baseline)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real GDP (EXP)	-0.047	-0.065	-0.082	-0.094	-0.104	-0.112	-0.117	-0.121	-0.123	-0.124	-0.125	-0.125	-0.125	-0.124	-0.124	-0.123	-0.122
Real household consumption	0.043	0.023	0.006	-0.006	-0.013	-0.020	-0.027	-0.034	-0.041	-0.046	-0.050	-0.052	-0.054	-0.055	-0.055	-0.055	-0.054
Real investment	-0.321	-0.318	-0.324	-0.334	-0.348	-0.357	-0.359	-0.356	-0.348	-0.342	-0.336	-0.331	-0.327	-0.324	-0.322	-0.322	-0.323
Real government consumption	-0.043	-0.059	-0.073	-0.085	-0.094	-0.100	-0.105	-0.109	-0.111	-0.112	-0.113	-0.113	-0.112	-0.112	-0.111	-0.110	-0.110
Export volume index	-0.138	-0.141	-0.154	-0.164	-0.168	-0.170	-0.170	-0.171	-0.170	-0.170	-0.170	-0.169	-0.169	-0.169	-0.169	-0.169	-0.169
Import volume index	-0.038	-0.056	-0.072	-0.084	-0.090	-0.095	-0.100	-0.104	-0.107	-0.110	-0.111	-0.112	-0.113	-0.114	-0.114	-0.114	-0.114
Real GDP (INC)	-0.047	-0.065	-0.082	-0.094	-0.104	-0.112	-0.117	-0.121	-0.123	-0.124	-0.125	-0.125	-0.125	-0.124	-0.124	-0.123	-0.122
Employment volume index	-0.033	-0.041	-0.047	-0.050	-0.050	-0.048	-0.045	-0.041	-0.037	-0.033	-0.029	-0.026	-0.023	-0.020	-0.018	-0.016	-0.014
Capital services volume index	0.000	-0.026	-0.047	-0.064	-0.077	-0.089	-0.099	-0.108	-0.116	-0.122	-0.127	-0.131	-0.134	-0.136	-0.138	-0.139	-0.140
Other fixed factors volume index	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Contribution of tech-change (productivity)	-0.033	-0.044	-0.054	-0.060	-0.063	-0.062	-0.060	-0.056	-0.051	-0.046	-0.042	-0.037	-0.033	-0.029	-0.025	-0.022	-0.019
GDP (EXP)	0.108	0.034	-0.020	-0.060	-0.090	-0.115	-0.135	-0.152	-0.164	-0.171	-0.176	-0.180	-0.181	-0.182	-0.181	-0.179	-0.176
Household consumption	0.223	0.143	0.089	0.051	0.026	0.002	-0.021	-0.042	-0.060	-0.072	-0.080	-0.086	-0.089	-0.090	-0.090	-0.087	-0.084
Investment	-0.259	-0.279	-0.306	-0.337	-0.372	-0.395	-0.404	-0.404	-0.399	-0.393	-0.388	-0.384	-0.382	-0.380	-0.379	-0.379	-0.381
Government spending	0.002	-0.085	-0.144	-0.178	-0.199	-0.218	-0.234	-0.248	-0.258	-0.267	-0.272	-0.276	-0.279	-0.282	-0.283	-0.282	-0.282
Exports	-0.083	-0.091	-0.108	-0.120	-0.124	-0.127	-0.129	-0.131	-0.132	-0.133	-0.133	-0.133	-0.133	-0.133	-0.133	-0.133	-0.133
Imports	-0.050	-0.073	-0.094	-0.109	-0.118	-0.124	-0.130	-0.136	-0.140	-0.143	-0.145	-0.146	-0.147	-0.147	-0.148	-0.147	-0.147
GDP (INC)	0.108	0.034	-0.020	-0.060	-0.090	-0.115	-0.135	-0.152	-0.164	-0.171	-0.176	-0.180	-0.181	-0.182	-0.181	-0.179	-0.176
Cost of employment	0.130	0.039	-0.036	-0.098	-0.150	-0.198	-0.241	-0.280	-0.312	-0.337	-0.357	-0.374	-0.388	-0.399	-0.407	-0.413	-0.417
Gross operating surplus to capital	0.078	0.029	0.003	-0.008	-0.010	-0.006	0.002	0.013	0.026	0.040	0.054	0.066	0.077	0.088	0.099	0.109	0.118
Gross operating surplus to other fixed factors	-0.133	-0.228	-0.326	-0.407	-0.465	-0.507	-0.539	-0.566	-0.588	-0.604	-0.616	-0.623	-0.628	-0.630	-0.630	-0.627	-0.622
Indirect tax revenue	0.112	0.039	-0.017	-0.060	-0.092	-0.120	-0.143	-0.162	-0.177	-0.187	-0.194	-0.199	-0.202	-0.204	-0.204	-0.203	-0.201
Real gross national expenditure	-0.038	-0.057	-0.073	-0.086	-0.096	-0.104	-0.109	-0.113	-0.116	-0.118	-0.118	-0.119	-0.119	-0.118	-0.118	-0.117	-0.116
Gross national expenditure	0.108	0.034	-0.020	-0.060	-0.090	-0.115	-0.135	-0.152	-0.163	-0.171	-0.176	-0.179	-0.181	-0.181	-0.180	-0.179	-0.176
Real gross national income	-0.033	-0.053	-0.072	-0.086	-0.098	-0.107	-0.114	-0.119	-0.122	-0.124	-0.126	-0.127	-0.127	-0.127	-0.126	-0.125	-0.125
Gross national income	0.114	0.039	-0.018	-0.059	-0.091	-0.117	-0.139	-0.157	-0.170	-0.178	-0.184	-0.188	-0.190	-0.190	-0.190	-0.188	-0.185
Real net national income	-0.025	-0.046	-0.064	-0.077	-0.086	-0.094	-0.099	-0.103	-0.106	-0.108	-0.109	-0.109	-0.108	-0.108	-0.106	-0.105	-0.103
Net national income	0.121	0.041	-0.015	-0.055	-0.085	-0.110	-0.132	-0.150	-0.163	-0.171	-0.177	-0.181	-0.182	-0.182	-0.180	-0.177	-0.173
Intermediate price index	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048
Investment price index	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043	-0.043
Household consumption index	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031
Government consumption price index	0.050	-0.020	-0.062	-0.084	-0.095	-0.106	-0.117	-0.127	-0.136	-0.142	-0.147	-0.151	-0.155	-0.157	-0.159	-0.160	-0.161
Export price index (FOB)	0.055	0.049	0.046	0.044	0.044	0.043	0.042	0.040	0.038	0.038	0.037	0.037	0.036	0.036	0.036	0.036	0.037
Import price index (CIF)	-0.012	-0.017	-0.022	-0.026	-0.028	-0.029	-0.030	-0.032	-0.033	-0.033	-0.033	-0.033	-0.034	-0.034	-0.033	-0.033	-0.033
Real exchange rate	0.168	0.117	0.084	0.060	0.042	0.026	0.012	0.001	-0.008	-0.014	-0.018	-0.021	-0.023	-0.024	-0.024	-0.023	-0.022
Terms of trade	0.067	0.067	0.068	0.070	0.071	0.072	0.072	0.072	0.071	0.071	0.071	0.070	0.070	0.070	0.069	0.069	0.069
Capital asset price index	0.000	0.038	0.039	0.021	-0.006	-0.032	-0.054	-0.069	-0.077	-0.081	-0.082	-0.081	-0.079	-0.078	-0.077	-0.076	-0.075
Nominal wage index	0.163	0.082	0.018	-0.038	-0.087	-0.136	-0.182	-0.224	-0.260	-0.291	-0.316	-0.338	-0.356	-0.370	-0.382	-0.391	-0.398
Real wage index	-0.017	-0.038	-0.065	-0.095	-0.127	-0.158	-0.188	-0.216	-0.242	-0.265	-0.286	-0.304	-0.320	-0.335	-0.347	-0.358	-0.368
FTE employment index	-0.019	-0.033	-0.045	-0.052	-0.055	-0.055	-0.053	-0.051	-0.047	-0.043	-0.038	-0.034	-0.030	-0.026	-0.022	-0.018	-0.015

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