





### TABLE OF

### CONTENTS

Introduction	5
PART 1: THE RISE OF THE INTANGIBLE ECONOMY	7
Characteristics of intangible capital	8
A snapshot of the local intangible economy	8
New intangible assets are coming online	10
Financing alternatives are springing up	13
PART 2: ACCOUNTING'S PLACE IN THE INTANGIBLES DILEMMA	15
Is there an intangible-shaped black hole in markets?	16
If accounting is the problem, why isn't it part of the solution?	18
PART 3: THE ACCOUNTING DEBATE ON CAPITALIZING INTERNALLY GENERATED INTANGIBLES	21
The case for capitalizing internally generated intangibles	22
The case against capitalizing internally generated intangibles	24
Is disclosure the catalyst to move the debate forward?	25
The horse has bolted: Tech companies have moved on without us	26
Dinosaurs in a digital era?	28
Bridging the knowledge gap on SaaS-based metrics in tech	29
PART 4: MOUNTING MOMENTUM AROUND RETHINKING INTANGIBLES	31
Intangibles are being quantified more precisely	31
Could the lack of data on intangibles be driving frothy markets?	32
Standard-setters and authorities are looking again at the rise of intangibles	33
ESG and I: Will efforts to standardize sustainability reporting flow through to other intangibles?	35
PART 5: WHERE TO FROM HERE?	37
New opportunities for the CPA profession	37
How should CPAs proceed?	38
How is the profession adapting to the intangible economy?	38
ACKNOWLEDGEMENTS	41
DEFEDENCES	40





### YOU CAN'T TOUCH THIS:

# THE INTANGIBLE ASSETS DEBATE

### INTRODUCTION

Twenty years ago, at the peak of the dot-com boom, innovative accounting thinker Baruch Lev warned that the accounting profession's bread and butter – producing and auditing financial statements – was losing relevance in the digital economy. For the most part, accounting rules did not recognize the internally generated intangible assets that fuel companies based on tech and innovation, like those blossoming in Silicon Valley at the time.

While intangibles can take many forms, common examples include algorithms, software as a service (SaaS), intellectual property (IP) such as patents and copyrights, research and development, brand value, human capital such as training and organizational capital in the form of management structures.<sup>2</sup>

Fast-forward two decades and Lev's prediction has come to pass. The intangible-intensive technology sector not only dominates markets, but our lives too. Its primacy has been cemented the world over by the covid-19 pandemic. And, although the stakes have risen, accounting rules have still not changed much in response.

For decades, regulators, standard-setters and accounting academics have been trying to push the needle on the complex question of accounting for intangibles. Despite the profession's ongoing efforts to solve this issue, the pace with which the intangible economy is accelerating is outstripping the process of developing standards. But reconciling historical fact-based accounting practices with forward-looking bets on lottery-like intangibles remains a big challenge.

While the accounting profession wrangles with this dilemma, the intangible horse has bolted. Technology start-ups and scale-ups, and the innovation

ecosystem, have not waited. Many in tech consider financial regulatory filings a box-ticking exercise and have instead come up with their own unstandardized and unaudited performance measures.

Concern about the looming irrelevance of traditional accounting in the digital economy has not been dispelled in recent public debates about intangibles. When economists and policy commentators propose initiatives to boost or measure the innovation economy, they rarely consider the role that accounting plays in facilitating intangible capital. Because it appears that accounting writes intangibles off the balance sheet, so to speak, the debate about how to account for intangibles has written accountants off.

The profession's taciturn position in the broader debate downplays its relevance in the digital economy. And in the context of today's jaw-dropping valuations for start-ups and tech stocks, and the monetization of new digital assets like cryptocurrency, carbon offsets and non-fungible tokens, the CPA's rigorous, unembellished approach to applying the rules may be precisely what is needed to help buffer against the risks of frothy markets.

Of course, some in the profession think it is unnecessary to rehash the discussion about intangibles. But the recent formalization of corporate disclosures and accounting standards related to environmental, social, and governance (ESG) considerations points to the valuable role CPAs can play in bringing certainty and consistency to a contested set of intangibles. Developments like these and the exponential growth of the intangible economy are putting decades-old questions back on the table. Is it time for the profession to think again about intangible assets?





#### PART 1

# THE RISE OF THE INTANGIBLE ECONOMY

Until the 1970s, businesses tended to focus their investments on tangible value drivers like machines, vehicles and property. But since then, in advanced economies it is intangible assets – value drivers without a physical embodiment, like software – that make up a greater proportion of business value.

In their book Capitalism without Capital, Jonathan Haskel and Stian Westlake describe the trend to invest more in intangibles: "Once, firms mostly invested in physical stuff: machines, vehicles, computers. As society gets richer, though, more and more business investment goes toward things you can't touch: research and development, branding, organizational development, and software. The change is not just the result of information technology; the data show that it began well before the Internet. Indeed, as far as we can tell, the shift seems to be a long-term trend: as economies get richer, intangible investment becomes more important."<sup>3</sup>

Companies across all sectors that invest in intangibles grow more than those that don't. This is most pronounced in financial services, where the growth rate associated with intangible investments is more than five times that of tangible investments.<sup>4</sup>

Today, intangible assets are recognized as the key source of innovation and growth, an economic golden goose, which is why business leaders and governments alike want to develop more of them. This is the case here in Ontario too. The Ontario Chamber of Commerce argued in 2020 that the

province's competitiveness depends on capitalizing an important intangible, data, and particularly on scaling up and commercializing high tech, knowledge-economy businesses.<sup>5</sup> But that will be hard if accounting rules stand in the way.

In a nutshell, accounting rules require the investments that companies make during the research phase on intangible assets inside their organizations to be expensed, while investments in tangible assets can be capitalized. Discordantly, intangibles generated internally by one company can be capitalized if they are acquired by another. "It's complicated by the fact that companies may invest in intangibles like artificial intelligence with the intention of integrating it with tangibles like selfdriving cars," points out Patrick Coady, FCPA, FCA, FCBV, a partner at KPMG LLP in Ottawa. "Whether intangibles are developed internally or acquired externally, the end goal for accounting should be providing useful information about them to the public and markets," says Coady.

The International Valuation Standards Council notes that the inconsistency in the way intangibles are treated permeates the impairment testing process as well.<sup>6</sup> As more companies have developed and monetized intangibles like the algorithm-powered innovation in the search engine that underpins Google's multibillion-dollar ad platform, the inconsistencies in accounting rules look out of touch.



### CHARACTERISTICS OF INTANGIBLE CAPITAL

Intangible capital has a number of distinct characteristics. One of the most striking differences from traditional assets is that many intangibles are highly scalable. They can be used simultaneously by multiple parties, and their value does not necessarily depreciate with repeated use, unlike that of, say, a vehicle.

Consider LinkedIn: it can scale up its revenues with minimal variable costs, if any, for each additional user that joins the platform. And the company enjoys the knock-on flywheel effect that more users joining begets more users again. This is what Haskel and Westlake describe as the quality of being non-rival, meaning that one person's use of an intangible does not impede someone else from using it simultaneously.

The authors also point out that intangibles may have little market value, which means that the cost of producing them is almost entirely sunk. However, intangibles generate positive spillovers that benefit people other than the producer and work more effectively when combined.

It is more difficult to prove ownership of an intangible asset than a tangible one, which can cause contention as well as claims that certain things should not be owned at all, for example human capital. As a result, intangible assets tend to be difficult to define and value, and may be impossible to resell as distinct assets, although this too is changing as new tools emerge to calculate their value.

### A SNAPSHOT OF THE LOCAL INTANGIBLE FCONOMY

Canada's levels of intangible investment grew faster than tangible investments between 1976 and 2016, according to Statistics Canada. Although the pace of growth slowed following the 2008 global financial crisis, as it did in other OECD countries, it remains in a significant upward trend. Canadian investment in data alone has grown by a staggering 400% in the last 15 years, with data-related assets being worth \$217 billion in 2018. This is more than two-thirds of the value of the country's crude oil reserves.<sup>7</sup>

Public Policy Forum and RBC Economics estimated that around 70% of the value of the Toronto Stock Exchange in 2019 consisted of intangible assets.<sup>8</sup> The same share for the S&P 500 in the United States is much higher, at 91%. Compared with other advanced economies, Canada's ratio of intangibles to market capital sits somewhere around the middle. In Europe, for example, it is 77%.

While the available figures are relatively old, in Ontario, business spending on intangibles shot up from \$22.2 billion in 1998 to \$51.6 billion in 2008, eclipsing investment in tangible assets. In fact, intangible capital accounted for more than a quarter of the province's labour productivity growth between 1998 and 2008, according to Ontario government economist Tatiana Muntean.<sup>9</sup> She found that in 2008 alone, the Ontario business sector spent almost \$26 billion on brand equity, firm-specific



human capital and organizational change, around \$17 billion on innovative property and \$8.4 billion on computerized information, mainly software.

Statistics Canada's analysis saw organizational capital comprising the greatest share of intangible capital in Ontario, followed by R&D, software, advertising, and architecture and engineering design.<sup>10</sup>

## THE COVID-19 PANDEMIC HAS ACCELERATED THE SHIFT TOWARD INTANGIBLES

The covid-19 pandemic is another factor that has accelerated the size and importance of intangibles in Ontario's economy. In March 2020, around 2.5 million Ontarians suddenly shifted to working from home. Out of necessity, firms stepped up their investments in digitization and carried out organizational overhauls to enable digitally powered remote work. The volume of investment was unprecedented and SaaS companies were big beneficiaries.

According to Microsoft, shortly after the covid-19 outbreak, the number of users of Teams, its software for online collaboration, climbed nearly 40% in a single week.<sup>12</sup> Other tech companies reported similar spikes in usage. Web-conferencing platform Zoom saw its revenue increase by 169% year-over-year.<sup>13</sup> The investments firms are making in these technologies are not one-offs. PwC's annual survey reported 71% of Canadian CEOs planning to increase their digital investments in the coming years.<sup>14</sup>

The application of intangible assets has been at the forefront of society's collective response to the pandemic, says financial expert firm Ocean Tomo, underpinning tactics from tracking the spread of the virus with contact tracing to ordering home-delivered meals. The digitalization of the economy enabled telemedicine, telework and online education during lockdown. Online shopping grew significantly.<sup>15</sup>

When the pandemic prompted lengthy lockdowns, it was Ontario's intangible-heavy, innovation-oriented firms that flourished. While companies reliant on bricks-and-mortar tangible assets to sell to and serve customers suffered the most. Accommodation and food-service industries shed a third of their workers in Ontario, while intangible-powered sectors like finance, and technical and professional services, grew throughout the pandemic.<sup>16</sup>





### NEW INTANGIBLE ASSETS ARE COMING ONLINE

Even before the pandemic, interest in intangibles had been heating up thanks to the creation and monetization of a new cohort of intangible assets. Cryptocurrencies, carbon offsets and, more recently, non-fungible tokens (NFTs), have shot onto mainstream markets. This has stirred debate as to whether and how regulatory and accounting rules should be applied to these new markets.

The treatment of the decentralized digital currency bitcoin, the world's largest cryptocurrency by market capitalization, under financial accounting standards is problematic, says Deloitte partner Diana De Acetis, CPA, CA. That is chiefly because cryptocurrencies generally fit within the definition of an intangible under accounting rules. "Bitcoin is a difficult issue," De Acetis says. "Many holders of bitcoin would like to see changes in the market value of bitcoin reflected in the financial statements. However, existing accounting standards do not explicitly address cryptocurrency. They deal with it through the process of elimination - it is not cash or a financial asset and depending on the business model it may not qualify as inventory - in which case, it is generally accounted for as an intangible asset measured at cost. Some people are not satisfied with this outcome and believe standard-setting is necessary to better address the accounting for these instruments."



The global pandemic has exposed several key insights, but one of the most important is how the intangibles economy has become such a critical ingredient for our economies and societies.

Sean Speer, Robert Asselin and Royce Mendes, New North Star II: A Challenge-Driven Industrial Strategy for Canada, Public Policy Forum<sup>17</sup>





In practice, bitcoin doesn't qualify as a financial asset because there is no contractual right to cash from the purchased bitcoin. There is no contract with an identifiable counterparty to pay a certain amount of money – this is simply how cryptocurrencies work. This is why many eyes are on Tesla's regulatory filings with its US\$1.5 billion investment in bitcoin.<sup>18</sup> If the value of the volatile cryptocurrency drops, Tesla would have to write down its value and take an impairment charge.

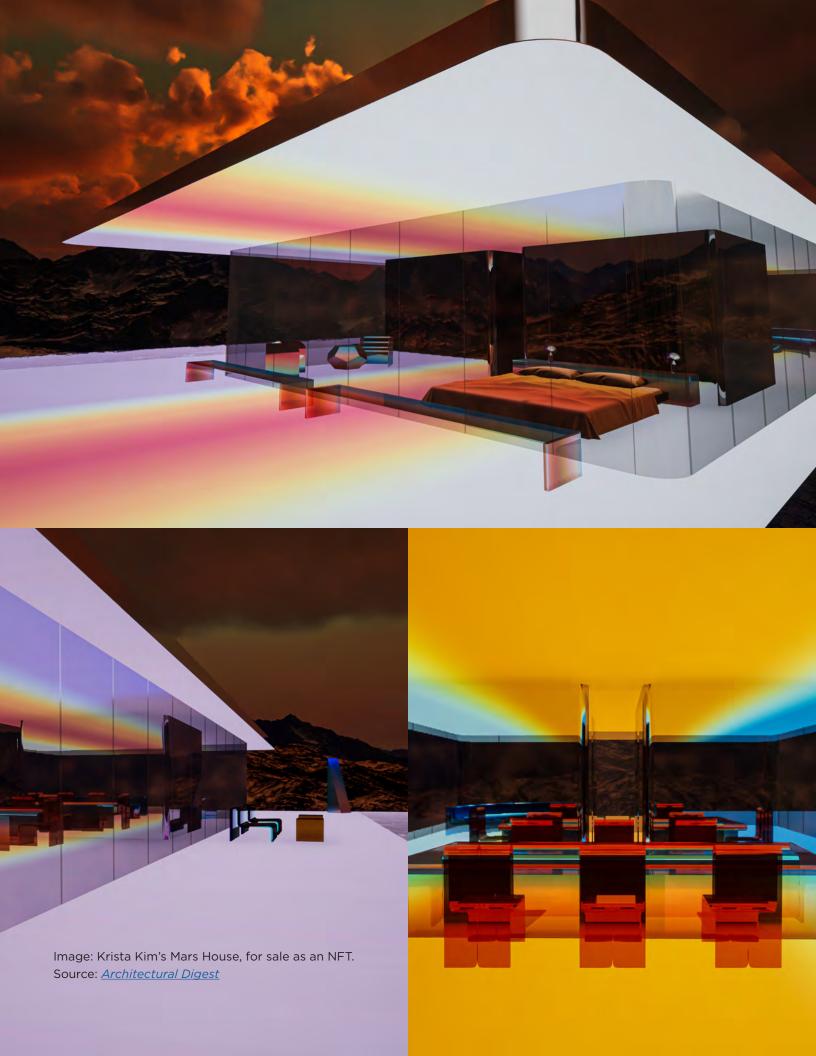


Image: Nyan Cat, Chris Torres

In 2021, NFTs captured headlines. From animated cats and fan merchandise to conceptual artworks, these digital assets are encrypted with unique blockchain code that serves as a title deed conferring ownership of the asset. Digital artist Beeple sold an NFT artwork at Christie's auction house for \$69.3 million in March 2021. The Nyan Cat GIF was

remastered as an NFT<sup>20</sup> and the Toronto Raptors basketball team auctioned off an NFT collection as part of its seasonal marketing campaign.<sup>21</sup> Toronto's booming housing market, too, has inspired an intangible doppelganger, with an architect-designed 3D mansion sold as an NFT for \$500,000 in 2021 (see images overleaf).<sup>22</sup> Similarly to cryptocurrencies, the market pricing for unregulated NFTs fluctuates wildly and a suspected insider-trading scandal at the biggest NFT trading site, OpenSea, has already reared its head.<sup>23</sup>

While holding NFTs may not be ubiquitous across Ontario's economy, cloud computing certainly is gaining in popularity. But it, too, is "throwing a bit of a monkey wrench into things", says Deloitte's De Acetis. "A number of companies are doing significant implementations of cloud-computing arrangements. Rather than going out and buying software, they're entering into a software-as-aservice arrangement. Under these arrangements, the customer typically pays a fee in exchange for a right to receive access to the supplier's application software hosted on the cloud over a specified term. What's catching a few people by surprise are recent interpretations of the IFRS standards ... that say, in essence, 'If you can't control the software because it's all within the control of the supplier, you're not going to be able to capitalize payments for that software'."





### FINANCING ALTERNATIVES ARE SPRINGING UP

A well-known hurdle in the intangible economy is 'the curse of collateral' which stems from the distinction accounting rules make between tangible and intangible assets.

Firms that are intangible-intensive typically lack collateral in the form of machinery and buildings, which makes them less attractive to traditional debt financiers.<sup>24</sup> This is thought to slow the pace of expansion among intangible-dependent companies, particularly start-ups, as has been reported anecdotally here in Ontario.

But, thanks to the emergence of more sophisticated data analytics, alternative lending models are beginning to emerge.

Financing platform Pipe bills itself as the "Nasdaq for revenue" and has become a market leader by creating a new asset class to sell: software subscription revenue streams. Founders can now sell the recurring revenue from a cohort of software customers, as an easily tradable asset, to fund their growth. "I think we've unlocked the largest untapped asset class in the world," said Harry Hurst, the chief executive of Pipe, in the Financial Times.<sup>25</sup> He added that Pipe plans to securitize the revenue streams on offer.

While Pipe is available to Canadian start-ups, homegrown venture debt providers are also springing up, including Wellington Financial, Espresso Capital, FirePower Capital and Flow Capital. Similarly, Toronto-based Clearco provides intangible invoice financing via revenue-share agreements with startups.<sup>26</sup> Lenders like these tap into their customers' real-time data to calculate monthly revenue, customer churn, ad spend and other SaaS-based performance metrics to provide loans against it.

The sheer economic weight of intangible assets has financial institutions redoubling efforts to find new and better ways of measuring and loaning against them. "In the U.S., we are seeing many more traditional financial institutions do IP-backed lending," says Lally Rementilla, CPA, CMA, Managing Partner for IP-Backed Financing at BDC Capital. "These days, the likes of JP Morgan and Bank of America are listed among the USA's top holders of patents because they're taking patents as collateral on loans." Rementilla says that "at BDC Capital, we are blazing the trail and operationalizing IP-backed lending in Canada, and inspire likeminded stakeholders to work alongside us to support more Canadian companies becoming leaders in the IP space."

Both the public and private sectors are moving quickly to capitalize on this opportunity. In 2019, the U.K. government funded Inngot, an IP-valuation firm, to develop the use of IP as collateral for lending. That same year, Deloitte acquired ClearViewIP, a global IP consulting firm that helps clients value and exploit IP. Other global players such as Aon and Houlihan Lokey have also expanded their IP solutions practices in recent years.

The growing groundswell in activity around intangibles is a clear indicator that developing them is a business imperative that factors into financial value and transactions.





### PART 2

# ACCOUNTING'S PLACE IN THE INTANGIBLES DILEMMA

A feature of Canadian conversations about intangibles is why we appear so far behind other developed economies in developing and commercializing them. From the Public Policy Forum and the Brookfield Institute to the Ontario government's Expert Panel on IP and Innovation, commentators raise concerns that we punch below our weight in generating and commercializing intangibles. Data is regularly published that shows Canada ranking poorly, and sometimes in last place, on international league tables of IP investment and other intangible enablers.<sup>27</sup> And, in response, policy thinkers prescribe measures to boost the intangible economy. But those measures rarely address the implications of accounting for intangibles, which will likely hobble their effectiveness.

As explained in more detail in Part 3, accounting rules require expenditures on research- or exploration-stage intangibles to be expensed immediately rather than capitalized. Critics argue that taking intangibles out of the equation in this way has created a phenomenon of intangible-intensive companies being undervalued in or on financial statements. These contentious figures, it's argued, then flow through into official macroeconomic calculations, leading to underestimates of crucial economic data like productivity and GDP figures used to inform policy decisions.

Respected economist Carol Corrado put this issue on the map while examining economic growth at the U.S. Federal Reserve in the early 2000s. She called for all types of capital aimed at enhancing the value of a firm to be treated the same as tangible capital in national accounting systems.<sup>28</sup> Otherwise, assessments of economic growth would be way off. Corrado and her colleagues put the figure of intangible capital excluded from GDP at US\$3 trillion back in 2003. It can only have ballooned since then.

As the intangible economy has continued to grow and surpass the tangible, more economists are agreeing with Corrado's view. "If you were to look only at GDP numbers, you'd think that the digital revolution never happened," write Avinash Collis and superstar economist Erik Brynjolfsson in the Harvard Business Review. "The contribution of the information sector as a share of total GDP has barely budged since the 1980s."29 In 2020, the OECD connected 30 years of lagging productivity growth with the challenges innovative companies have in funding their intangible investments.<sup>30</sup> In response, Statistics Canada called for better estimates of intangible investments that are not fully consumed during the period when the expenditures are incurred, to right underestimated growth rates.31





At the macroeconomic level, policymakers have made considerable efforts to measure the growth and impact of intangible investments on productivity and economic growth, but it is often done on an adhoc basis, write Creig Lamb and Daniel Munro at the Brookfield Institute.<sup>32</sup> They conclude that identifying better measures of intangibles is an urgent priority because being unable to properly assess intangibles' market performance inhibits our understanding of their impacts on the economy.



It's very difficult to understand how to value the intangible assets that are being created. We have measures of intellectual property, but I would argue that we are understating their value in the economic data.

Royce Mendes, Executive Director and Senior Economist, CIBC Capital Markets



### IS THERE AN INTANGIBLE-SHAPED BLACK HOLE IN MARKETS?

Setting aside the question of whether treating intangibles as intermediate expenses distorts policy, the more immediate question for business is whether it has a similarly distorting effect on management decision-making and investment.

Intangibles are thought to explain at least some of the widening gap between tech company valuations and their book value. While book value is no substitute for fair market or business value, the widening of this financial reporting black hole correlates with the growing volume of intangible capital.

Intangible-enabling advocates suggest that capitalizing intangibles has a 'Trojan Horse' effect boosting equity across the board.<sup>33</sup> Guido Giammattei, Head of Research for RBC Emerging Markets Equity, put this to the test, examining what would happen if tech companies capitalized some of their intangible spending on R&D and advertising. "It showed the earnings are understated, but also the return on investment capital and the return on equities of these firms are understated too. It shows that the valuations you're seeing are not necessarily accurate," says Giammattei.



This hasn't been lost on investors. Preliminary findings from a study for the Institute of Chartered Accountants of Scotland, led by Professor Stefano Zambon, Secretary General of the Italian Foundation for Business Reporting, identified a disconnect between the views of users and preparers of financial statements. Almost 93% of users say financial reporting of intangible assets is inadequate, compared with 61% of preparers.<sup>34</sup> The biggest gaps in information were related to R&D, human capital, intangible risks and opportunities, IP and brands. In a separate study, U.K. investors said that information about intangibles is unreliable, incomplete and inaccurate.<sup>35</sup> This is a challenge for Canadian CFOs and financial controllers too. According to an EY survey, the lack of a formal intangible reporting framework is among the top barriers to these professionals in attempts to measure and report on their organizations' long-term value.36



Despite the heroic efforts by regulators to improve accounting and corporate transparency, financial information no longer reflects the factors that create corporate value for important industries in our economy.

Howard M. Armitage, Gary Pooley and Soren Campos, Performance Metrics in an Increasingly SaaS-Based World, CPA Ontario Centre for Performance Management Research and Education at the University of Waterloo<sup>37</sup>



CPA ONTARIO INSIGHTS



Writing off internally generated intangibles is also thought to create risk-management challenges. "Participants in the financial reporting ecosystems, such as auditors and regulators, focus on matters that are material to the financial statements. Given their nature and the indirect way they impact the financial statements, unrecorded intangibles may not be considered material, or at least may receive less focus than tangible assets," points out Andreas Ohl, a partner at PwC in the United States. Unsurprisingly, insurers like Lloyd's<sup>38</sup> and Aon have twigged to the potential market for intangible asset protection. Research from the Ponemon Institute compared insurance levels between tangible and intangible company assets. It found that intangible risks like data leakage and patent breaches cost more than losses in tangible assets like property, plant and equipment, but the latter had three times the insurance coverage.39

Not everyone agrees that intangibles are inadequately represented in financial reporting. Skeptics of the 'intangible black hole' explanation for the gap between valuations and book value suggest that it is better explained by low interest rates and plentiful capital fuelling investors' appetite for bigbet start-ups. Indeed, skyrocketing valuations may themselves answer concerns about under-leveraged intangible assets holding back growth in intangible-heavy sectors.

### IF ACCOUNTING IS THE PROBLEM, WHY ISN'T IT PART OF THE SOLUTION?

Despite recognition that the accounting treatment of intangibles is the cause of much debate and anxiety, economists and policy advocates weighing into the discussion aren't looking to the profession to understand why, or whether the issues can be resolved.

Haskel and Westlake's seminal book Capitalism without Capital received widespread global media coverage, from the Wall Street Journal and The Guardian to the South China Morning Post. But out of its more than 250 pages of detailed analysis on intangibles, the accounting factor only garnered four pages of attention, indicating the relatively little interest that is paid to the role of accounting in this debate.

Even when accounting is directly fingered as the culprit restricting the intangible economy, as McKinsey Global Institute did in 2021, the profession doesn't rate as a problem-solver or participant in the debate. The authors said business and markets "are 'trapped' in accounting norms that are not necessarily fit-for-purpose" and called for the problematic accounting treatment of intangibles to be reconsidered in order to better value the knowledge economy. Then the authors promptly turned to economists to figure out how this could be done.



The lack of dialogue between accountants and economists or intangible policy advocates may be the cause of the impasse on intangibles. Carol Corrado, Distinguished Principal Research Fellow in Economics at The Conference Board, who has been at the forefront of discourse on the issue for decades, sees little crossover or connection between macroeconomic policy thinkers and bodies that deal with accounting standards and regulations.

Thomas Linsmeier, Professor at the University of Wisconsin and former member of the Financial Accounting Standards Board (FASB), agrees that economists need to understand the accounting complexities around intangibles. But accountants also need to better understand the economic context. "Economists think there are assets there and accounting is hindering growth that could come from it, so they want the accounting fixed. But we've got huge accounting problems in recognizing internally generated intangibles as assets," says Linsmeier. "For example, what amount would be recorded? If it is the costs incurred to develop the intangible, they will likely be incomplete and limited to costs incurred after we know that there is an asset? Or, if it's a current measure of the value of those intangibles (which likely will exceed the costs incurred), would users of financial reports be comfortable with the entity recognizing unrealized gains in the current period that reflect the expected net income to be generated by those intangibles in future years? Both measures have issues that may then not be useful on financial statements and it throws up a lot of subsequent accounting problems."

In comparison to the volume of others in the public debate, the accounting profession elicits little more than a whisper. But if the economic and policy momentum to further stimulate growth in intangibles continues apace, the profession may need to raise its voice and insist the accounting implications of intangibles are addressed before rushing further ahead. As the next section of this paper explores, accounting for intangibles is not nearly as easily packaged up as intangible advocates assume.



This issue has been at a standstill for a very long time. And meanwhile, the intangible economy just continues to grow. Now everybody's talking about data and data-driven assets being really important to companies' internal strategies. But we're still dealing with the same set of issues.

Carol Corrado, Distinguished Principal Research Fellow in Economics at The Conference Board. The Conference Board







#### PART 3

# THE ACCOUNTING DEBATE ON CAPITALIZING INTERNALLY GENERATED INTANGIBLES

As the importance of intangibles to global business increases, the debate about whether they should be classified as expenses or assets is gaining momentum. Those in the accounting profession who assumed the question was settled long ago are finding that not everyone wants to maintain the status quo.

On one side, advocates in favour of capitalizing internally generated intangibles argue that the accounting profession needs to get on board so markets and managers can leverage more intangible value. If not, balance sheets will cease to be a useful guide to a company's performance, and CPAs will not be seizing new opportunities to provide value to their organizations. This is what Baruch Lev argued is happening in his provocatively titled 2016 book, The End of Accounting. 41 But arguably, accountants and auditors will always have 'relevance'. The immediate question is how much additional fair market value information accountants - and particularly those who are valuation specialists, like CPA CBVs - should endeavour to provide, either with or in the note to financial statements.

The opposing side claims that intangibles aren't sufficiently measurable and fungible, and that attempts to value them risk accountants and auditors becoming associated with overhyped valuations.

Take, for example, WeWork's failed IPO in 2019,

which saw its valuation drop by almost US\$40 billion in a rapid "unicorn extinction event". 42 More recently, Scott Galloway, Professor of Marketing at NYU's Stern School of Business and a podcast host, analyzed Aspiration, a fintech that reported positive cash flow via a novel accounting measure, EBITDAM, where the M stands for subtracting marketing expenses, which are forecast to be 52% more than the company's expected revenue in 2021.43

"While there are a number of different approaches to providing more information with respect to intangibles," says Andreas Ohl of PwC, "they have cost-benefit considerations that tend to be weighed differently by preparers and users of financial statements."

Intangibles have become a divisive, perennial bone of contention in the accounting community. One pundit describes the debate as a 'holy war'. Standard-setters, regulators and academics have examined and re-examined the matter via projects, studies, calls for comment, expert groups and committees.<sup>44</sup> Intangibles remain on the agenda for standard-setters, as set out in more detail below in the section 'ESG and I' in Part Four, but the speed of the intangible economy has shot ahead of the accounting debate.

Let's dive in and explore both sides.



### THE CASE FOR CAPITALIZING INTERNALLY GENERATED INTANGIBLES

Intangible assets should be classified as capital to avoid distortions in business investment and resource allocation, wrote Ontario government economist Tatiana Muntean in 2014.<sup>45</sup> That is to say, when financial statements fail to capture and reflect the contribution internally generated intangibles make to a company's value, they create distortions between those companies that generate their own intangible assets and those that acquire them.<sup>46</sup>

Balance sheets do report internally generated intangible assets acquired through a purchase that creates a third-party transaction which is then measurable and confirmed by market value. When Microsoft paid \$26.2 billion for LinkedIn in 2016, a third of which was allocated to intangible assets, it was in part buying a network.<sup>47</sup> The value of LinkedIn's network, comprising more than 400 million users at the time of sale, was reported in Microsoft's financial statements in 2019 as \$3.6 billion of "customer-related" intangible assets. Even though that network and revenue from it has grown year on year since the acquisition, accounting rules required Microsoft to amortize LinkedIn's intangible assets by a fifth that year.<sup>48</sup>

The accounting basics that go into preparation of the income statement and balance sheet don't reflect the value inside digital corporations, says Associate Professor Anup Srivastava, Canada Research Chair in Accounting at the University of Calgary. Unicorns with multibillion-dollar valuations, like Uber and Airbnb, appear unprofitable. Their reported assets are often a minuscule portion of what investors consider as their market values: the current market-to-book ratio for Apple is 28:1, and for Microsoft, 14:1.49

"As a CPA myself, it is ridiculous to think we can't value these assets," says Jim Malackowski, CEO of Ocean Tomo. "We do it all the time. When self-developed intangibles are acquired, the first thing we do is a purchase-price allocation." PayPal CFO John Rainey agrees, telling the Wall Street Journal that "it's definitely possible to value intangibles," but that it is resource-intensive for already pressed finance teams. <sup>50</sup>

In July 2021, Accountancy Europe encouraged the International Accounting Standards Board (IASB) to revise the capitalization requirements of internally generated intangibles in IAS 38 to "better reflect the ever-increasing importance of intangibles in today's business models".<sup>51</sup> In the U.K., researchers have suggested that the inconsistent way intangibles are capitalized, or not, in different industries is a reason to support changes to IAS 38.<sup>52</sup>



Some contend that recognizing intangibles could have other benefits, such as incentivizing adaptation to climate change. Sustainability advocate Rethinking Capital has proposed a new "normative accounting" model that treats company expenditures on intangible assets like net-zero strategies as investments in the company's licence to operate. 53 Advocates argue passionately for changing accounting rules to promote green investments. "Much more needs to be done to properly measure and classify intangibles," says Robert Zochowski of the Harvard Impact-Weighted Accounts project. "If we don't get this right, then investors are investing in a vacuum. The accounting profession needs to stay with the times."

Even among those without strong views for or against capitalizing intangibles, there are concerns about the lack of transparency around company R&D spending that result from the status quo. Commentators like Bill Armitage, CPA, CA, CBV, a partner at EY in Toronto, says we need improved disclosure of R&D spending, especially when it comes to amortizing the costs of developing iterative technologies with long lifespans. "Look at Microsoft Windows: it has been running for 30 years and now Teams is giving it more market share. We're required to amortize these on a straight-line basis, but that's not how they decline in value; accounting is sometimes a blunt object."

Alan Teixeira, Global Director of IFRS Research at Deloitte in the U.K., points out that the distinction made between recognizing tangibles and intangibles harks back to the development of the standard IAS 38 Intangible Assets in the 1970s.<sup>54</sup> "It's an artificial divide," he says, "we don't always know what the difference is, so we should just talk about assets more generally and be done with it."

Looking at the bigger picture, intangibles expert and accounting historian Professor Stefano Zambon says accounting has survived the centuries by adapting to the changing needs of institutions and industries. From double-entry bookkeeping in the 15th century to management accounting in the 19th, "history shows us that accounting and reporting has the capacity to change as new, more complex economic realities emerge. So, I don't understand why, now, accounting should not change," says Zambon.



### THE CASE AGAINST CAPITALIZING INTERNALLY GENERATED INTANGIBLES

Those who support the status quo contend that accountants should not lend credibility to problematic valuations like those that include intangibles. Moreover, CPAs must meet their professional obligations by taking reasonable steps to ascertain the veracity of data going into intangible valuations. Valuing intangibles that might generate a fortune in revenue or nothing, akin to a lottery ticket, would require too much crystal-ball gazing for it not to be risky territory for the profession.

"Intangibles ... are the sort of asset that 10 people could have 10 different opinions on," says Associate Professor Matt Sooy at Western University's Ivey Business School. "You're not only betting on what you think the value will be, but you're also betting on what the other 10 will think it might be. That kind of speculation is fuel for market bubbles."

"Trying to capture the value of intangibles is a hugely subjective exercise and would pose enormous recognition and measurement challenges," said former IFRS head Hans Hoogervorst in 2019.55

Peter Ott, CPA, CA, CBV, is a specialist in valuing intangibles. As a Chartered Business Valuator (CBV), he is often engaged by management to undertake intangible asset valuations in business combinations. "I've been valuing intangibles now for 20 years, and in doing that, you're relying heavily on management assertions about future plans and scenarios," he says. "How do you charge an accountant, absent any third-party-verifiable information, with assessing whether or not what management is telling them

about the company's internally generated intangibles makes sense?"

While everything in business valuation is indeed an opinion that is supported by estimates, market data and assumptions, it is understandable that intangibles make some accountants very nervous. But by including the voices of CPA CBVs in the discussion, we can better understand both sides of the debate and help bridge the gap between CPAs with a conservative position on intangibles and those with a more progressive one.

Accounting standards expert and blogger John Hughes, CPA, CA, can see both side of the debate but questions whether a resolution, if it can be found, would result in better decision-making. "No one should be happy with a balance sheet that represents such a small portion of a company's value. It's not a good accounting model," says Hughes, "but given the frequent emphasis on EBITDA-type measures that reverse out the effects of amortization, it's reasonable to wonder whether having more intangibles on the balance sheet would in itself significantly affect decision-making."



"The risk in having accountants report on this forecast information through valuing intangible assets is that readers of financial statements stop believing the information that accountants normally report on, and then where would we be?"

Peter Ott, CPA, CA, CBV





### IS DISCLOSURE THE CATALYST TO MOVE THE DEBATE FORWARD?

A third position acknowledges the intractable issues with expensing or capitalizing internally generated intangibles and instead suggests sidestepping protracted standards changes in favour of other forms of disclosure. A first step proposed by Anup Srivastava and colleagues could be disaggregating company expenses to distinguish between what is spent on running the business and investments in generating future revenues.<sup>56</sup> Enhanced disclosure would prevent accountants from chasing their tails by putting intangibles on their balance sheet and income statement, believes intangible-economy advocate Jim Balsillie, FCPA, FCA, Chair of the Canadian Council of Innovators. He suggests leaving the financial statements as they are and "really going to town on disclosure".

"The sweet spot is in that disclosure space," agrees Professor Richard Barker from the Saïd Business School at Oxford University. "Regulated disclosure outside of the financial statements is a way to unlock the growth potential of intangibles." Economist Carol Corrado suggests starting with a relatively easy intangible disclosure like expenditures on employee training for digital skills. "Just tell us how much you're spending to generate this capacity," she says. "Companies don't have to put a value on that increase in capacity. Just knowing what they're spending to enhance those skills would give us good information on intangibles and help inform the analysts arriving at the company's market capitalization."

In fact, digital powerhouses like Apple, Google, Microsoft and Salesforce do disclose information on their investments in innovation and human capital, although it's not standardized. "It's a bit of a Wild West situation; it's underdeveloped," says Professor Barker.

However, there is doubt whether companies will disclose competitively sensitive information about their intangible value drivers, even if measurement frameworks for them are agreed, unless they're forced to by regulators. This is particularly so among intangible-heavy technology companies that face few challenges in attracting capital.

While the debate may not be new, it continues to be contested. CPAs looking at an increasingly digital future economy should familiarize themselves with the arguments on all sides and consider where they stand.



### THE HORSE HAS BOLTED: TECH COMPANIES HAVE MOVED ON WITHOUT US

While the accounting profession has been focused elsewhere, the fast-growing tech sector has eschewed traditional financial reporting, and its requirement for assurance, in favour of alternative performance measures. Start-ups and tech companies use operational metrics that aren't captured in financial statements to report their value. Some of these metrics are outlined in the diagram below.

Yet there is no one way to calculate and report these metrics. This is a sticking point for accounting, which requires company information to be consistent and comparable. "We can all say that a measure such as customer churn would be useful," says Andreas Ohl of PwC. "But the challenge is the absence of a standard on how to do it. For example, if I lose 1 of 100 customers, but that customer is 10% of my revenue, is that 1% or 10% churn?"



If start-ups are making money in terms of being profitable, they're probably not going fast enough.

Derek Szeto, angel investor and founder of life-insurance start-up Walnut



As Anup Srivastava and his co-authors write, the more a digital company invests in its future, the more it is penalized by accounting with higher reported losses. Returns on intangible assets like algorithms and apps increase as more people use them, but accounting rules treat them like depreciating tangible assets. So, at the end of the day, its reported profits or losses do not accurately reflect its ability to generate future profits.<sup>58</sup>

This is why many tech CFOs consider financial reporting an exercise in mere regulatory compliance and think spending on audits and financial reporting is a waste of shareholder money.<sup>59</sup> Toronto-based tech investor and CPA Ontario Council member Brice Scheschuk, CPA, CA, who is Managing Partner of Globalive Capital, explains that "right across the tech ecosystem, financial reporting tends to be disregarded. But my own experience has shown that CPAs who embrace the entrepreneurial finance skills associated with the start-up founder mindset will improve the way the profession intersects with the start-up innovation community."

Whereas accountants are typically cost-driven and focused on finding savings, the tech ecosystem is focused on revenue and growth. "You can cut costs but it's not going to make you a big company; it's going to make you a smaller company with a little bit higher margin," says Scott Chester, CPA, CA, Senior Director of Finance at Wealthsimple. That's not what tech entrepreneurs and investors are looking for. They would prefer start-ups lose money in the early days in an effort to 'grow big or go home'. Although ironically, writing off investments in R&D helps start-ups minimize taxes and supports the growth-focused business model, says Derek Szeto, an angel investor and serial entrepreneur.

#### **5 LEADING METRICS FOR SaaS BUSINESSES**

The researchers found that these are the five leading metrics used by SaaS businesses executives:

#### ARR, MRR or DRR

Annual, monthly, or daily recurring revenue, the most important metrics

#### **Customer churn**

The percentage of customers that stop using a company's product or service within a time frame

#### **Sales funnel traction**

Detailed information about how many leads pass from each stage in a sales funnels to the next

#### CAC

Cost of acquiring customers

#### Cash burn

The rate at which a business spends capital, usually per month, as it works towards generating positive cash flow

## How many executives track these metrics? 92%









From *Performance Metrics in an Increasingly SaaS-Based World*, CPA Ontario Centre for Performance Management Research and Education at the University of Waterloo<sup>57</sup>





In any case, suggests Scott Chester, the start-up world would be better served by the accounting profession if it agreed on a set of auditable and comparable definitions for customer metrics like those used by SaaS businesses, rather than going down the path of trying to capitalize intangibles. "A clear set of auditable metrics would allow accountants to provide better insight to the market without getting mixed up in intangible valuations," says Chester. Verifying customer metrics may well be an area where CPAs and CBVs can helpfully weigh in.

### DINOSAURS IN A DIGITAL ERA?

Sometime around 2007, the year the iPhone was launched, the intangible-powered digital economy began its meteoric climb. Consumer apps and SaaS business models flourished. Even leading up to that point, Professor Moren Lévesque, CPA Ontario Chair in International Entrepreneurship at York University's Schulich School of Business, observed fewer of the entrepreneurs advising her students in the mid-2000s had accounting backgrounds. "At least 50% of the entrepreneurs who came as guest speakers to my classes had accounting backgrounds before the advent of the SaaS business model," she says. It seems that just when intangibles took off, accountants started withdrawing from the picture.

And since then, with CPAs (rightly) bound to accounting standards, even when they're an ill fit for digital companies, tech CFOs have tended to look to others when building their teams. In a qualitative study published in the Harvard Business Review, the CFO of a trillion-dollar company commented that they now avoid inviting their chief accountant to strategy meetings because they distract the team with talk about rules, regulations and reporting that is out of alignment with the company's valuecreation strategy. Another CFO said that CPA certification is considered a disqualification for a top finance position. These views are no doubt a bitter pill for CPAs to swallow but, since the accounting profession has a crucial role to play in protecting the public interest, it is essential to address these concerns as the tech ecosystem continues its upward trajectory.



To be fair, CPAs are not burying their heads in the sand on this, but the rate of growth in the intangible economy is pushing them into risky territory while the standards are still being hashed out. In the meantime, profession-wide initiatives such as the Foresight project on value creation have produced resources for CPAs eager to move ahead in this space. In addition, the new CPA Competency Map will be a blueprint for the future of learning for the profession which will begin to be rolled out in 2022. This new approach will refocus the skills and competencies CPAs will need for the future and equip the profession with the know-how to grapple with changes in the digital economy.

It is difficult to deny that the scale of the shift from tangible to intangible investment has created headaches for the accounting profession. And as the intangible economy grows, we can expect those headaches to worsen.

### BRIDGING THE KNOWLEDGE GAP ON SAAS-BASED METRICS IN TECH

Researchers at the CPA Ontario Centre for Performance Management Research and Education at the University of Waterloo asked SaaS business leaders and investors about the disconnect between traditional accounting and SaaS metrics. They received a "consistent recommendation from participants" that post-secondary training and professional accounting bodies need to do more to prepare CPAs with a sufficient understanding of these innovative business models and SaaS reporting metrics. <sup>50</sup>

The research finds, "SaaS strategic resources (patents, brands, content, funnel management, specific vendor agreements, minimum churn, processes that are hard to imitate) are seldom the topic of conversation in management or cost accounting curricula. Cloud-based business models, the subscription economy, the impact of 'sunk cost' investment in research, development and marketing expenses, top line focus and extended pathways to profitability are all issues with which future finance and accounting professionals should have more exposure." 61

Read <u>Performance Metrics in an Increasingly</u> <u>SaaS-Based World</u>.





#### PART 4

# MOUNTING MOMENTUM AROUND RETHINKING INTANGIBLES

Recent developments in markets and technology look set to drive more demand for the accounting profession to reconsider its splintered stance on intangibles.

### INTANGIBLES ARE BEING QUANTIFIED MORE PRECISELY

Concern about the difficulty of measuring the value of intangible assets compared with their tangible cousins, and about the challenge they pose to conventional ideas of ownership, has seen some accountants toss intangibles into the too-hard basket. "But," says Tom Strezos, CPA, CA, CBV, "the valuation of intangibles has evolved. It has become more formulaic. They're more standardized now... But a lot of it still comes down to professional judgment." Jim Malackowski from Ocean Tomo, a specialist technology and IP consulting firm, rejects the pushback from segments of the profession against doing more to put a value on intangibles. "We have a robust IP-valuation process; we value these things all the time." But for many time-pressed finance teams, valuing and auditing intangibles may be too resource-intensive.

A decade ago, intangible-heavy start-ups were valued based on rudimentary proxy measures such as the number of engineers on staff, where each head counted was allocated a nominal value of \$500,000 or \$1 million. Similarly, arbitrary proxies have served as indicators of intangible value at

the macroeconomic level. In its 2020 analysis of intangible capital in businesses, Statistics Canada used an estimated 20% of managers' compensation and fees spent on consulting services to serve as a measure of company investments in organizational capital, while brand equity was estimated at 60% of advertising spend.<sup>62</sup>

No doubt some data is better than none, but as the economy continues to digitize, advances in data analytics, artificial intelligence and quantum computing may make valuing complex intangibles fast and affordable. But in the meantime, though their efforts may be fragmented, economists and analysts are gaining confidence in putting figures to otherwise unquantifiable intangibles.

The U.S. Bureau of Economic Analysis estimated the value of free content and its impact on GDP.<sup>63</sup> LinkedIn data on the employment of IT workers has been used by researchers to provide firmlevel measures of prices and quantities of digital intangible capital – a step forward in analyzing human capital, which can be hard to pin down.<sup>64</sup> Brand value, often considered a squashy, subjective measure, is regularly estimated and ranked. In 2021, TD topped the rankings as Canada's most valuable brand at \$21 billion and in Ontario, Brookfield gained 15% in value to be named the province's fastest growing brand, valued at almost \$11 billion.<sup>65</sup>

Arguably, as these measures become more precise and ubiquitous, companies will gain the sophistication required to quantify their intangibles.





### COULD THE LACK OF DATA ON INTANGIBLES BE DRIVING FROTHY MARKETS?

Despite economic realities on the ground, the covid-19 pandemic has spurred surging growth in intangible-dominated markets. Low interest rates are driving swathes of capital toward intangible-driven tech companies and their potential 'lottery-like payoffs'. This is spurring tech valuations to grow faster than ever. Since the start of the pandemic, shares in Ottawa's Shopify Inc. rose by more than 400%.<sup>66</sup>

Intangible evangelists see this as just the beginning of the sector's rise. While other investors have expressed concern that this may be an overvalued asset bubble, with history repeating itself during this century's 'roaring twenties'. "I never thought after 2002, the dot-com era and the wreckage of that market, I would see that type of market again in my investing lifetime," veteran short-seller Jim Chanos told BBC Radio in late 2020. "Gig-economy companies like Uber are the triumph of narrative over analysis in this market. They've convinced investors they're something they're not." 67

Tom Strezos, CPA, CBV, presciently explored this issue in 2001. "I was wondering how these companies have billion-dollar valuations when they have very little revenue and no profit. During the dot-com boom when a dog food company was trading on eyeball counts on their website, it blew my mind,"

says Strezos. "But when the meltdown happened in March 2002, commentators changed their view to come back to the business fundamentals of cash flow and revenue." Since then, the value of technology, brand and customer lists have solidified, giving a clearer sense of forward-looking revenue. And, while valuations may seem "loopy", Strezos suggests they're better grounded on real intangible assets today than they were 20 years ago.

The unrecognized value of intangible assets is often seen when businesses file for bankruptcy. RadioShack's brand and customer data sold for US\$26.2 million when it was wound up. Locally, the collapse of notorious tech company Nortel in 2009 saw its IP assets sold years later for US\$4.5 billion. "The company clearly had a lot of value, but those assets were de minimis on its balance sheet," says Bill Armitage, a partner at EY. "Anyone involved could see that the technology and its patents still had tremendous value and many years of life in them."

But in the absence of standardized digital metrics, "fraud-splaining", as Scott Galloway colourfully terms it, remains a problem.

Arguably, unassured SaaS-based metrics are easier for growth-obsessed companies to fudge compared with traditional financial performance measures. This is allegedly the case with Silicon Valley start-up HeadSpin. In August 2021, the company's CEO was charged by the U.S. Securities and Exchange Commission with falsely inflating customeracquisition metrics to push its valuation up to



the coveted \$1 billion and attain unicorn status.<sup>68</sup> Similarly, the aptly named Hindenburg Research pointed out that a number of start-up emperors, like electric-vehicle manufacturer Nikola<sup>69</sup> and fintech outfit HUMBL, were wearing no clothes but reported strong metrics.<sup>70</sup>

If a tech bubble pops again, we can expect commentators to wonder where the cool-headed accountants and auditors were when the market needed more rigorous reporting and a dose of professional skepticism. In fact, when asked, both companies and investors say information about intangibles should be audited by an independent third party.<sup>71</sup> But while intangibles remain below the auditor's radar, they will dodge the scrutiny that the market expects.

### STANDARD-SETTERS AND AUTHORITIES ARE LOOKING AGAIN AT THE RISE OF INTANGIBLES

At the moment, the conversation about the treatment of intangibles is just that – a conversation. However, momentum is building for the development of policies.

Upon taking up his role as chair of the IASB in July 2021, Andreas Barckow acknowledged "the rise of self-generated intellectual property and its non-addressal in the accounts" as one of the challenges for the organization.<sup>72</sup> Pundits suggest that intangibles may therefore make it onto the IASB's agenda in 2022. In its agenda consultation, the IASB reported most respondents consider a project on intangible assets a high priority and would like to see IAS 38 modernized to better reflect the increasing importance of intangibles and new types of assets that didn't exist when the standard was created.<sup>73</sup>

"The issue of intangible assets has been on the agenda of standard-setters and regulators for some time, and it is increasingly gaining momentum," write Dionysia Dionysiou and her co-authors in a paper for the University of Glasgow and ACCA Global. Among those weighing in to advance the standardization of reporting on intangible assets are the European Securities and Markets Authority, the U.K.'s Financial Reporting Council and the European Financial Reporting Advisory Group.





In the United States, the FASB announced that it, too, is working on a research project to consider ways of improving accounting for and disclosures of internally generated intangibles and R&D.75 Running in parallel are efforts by U.S. policymakers to bring more transparency to intangible measures. As part of its implementation of a tax on global intangible low-taxed income in 2020, the U.S. Congress agreed on a method for determining income from intangible assets.<sup>76</sup> In addition, U.S. senators in 2019 proposed a bill known as the DASHBOARD Act, which would require big tech companies to disclose how much their users' data is valued at every 90 days. No doubt, the market data and revenue-tracking of intangibles coming out of efforts like these will elicit new measurement capabilities inside companies and contribute to determining the value of intangible assets in the years to come.

Governments around the world are also looking to boost their intangible economies in pursuit of strategic advantage. The Singaporean government is expanding availability of finance for the intangible economy by working with commercial banks to develop a local market for IP-backed loans. "Singapore has a 10-year plan to make themselves an international hub for intellectual property and intangibles," says Lally Rementilla, CPA, CMA, Managing Partner, IP-Backed Financing, BDC Capital. "They're having discussions with the accounting and

valuation profession on what is it going to take to to put in place relevant valuation practice standards and guidelines with respect to intellectual property and intangibles. Policymakers are encouraging this conversation, bringing experts in to talk about valuation of intangibles and try to influence disclosure standards."

In Australia, business is talking with government to reform tax-depreciation rules for cloud-based services. "We want to make sure tax settings recognise digital investment in the same way as a physical one," says Business Council of Australia President Tim Reed, the former CEO of accounting software service MYOB Australia.<sup>77</sup>

Closer to home, CPA Canada is involved with the Data Governance Standardization Collaborative, a group of Canadian organizations developing standards around data. "The accounting profession needs to... design a consultation strategy so that CPAs can begin the granular work of supporting standards, gaining experience in an emergent discipline, and, finally, establishing themselves as authorities," analytics expert Michel Girard told CPA Canada in 2020.<sup>78</sup>



# ESG AND I: WILL EFFORTS TO STANDARDIZE SUSTAINABILITY REPORTING FLOW THROUGH TO OTHER INTANGIBLES?

Moves to standardize disclosures on environmental, social and governance factors – a set of intangibles – require more consistent and comparable methods to measure them. As we set out in our 2021 whitepaper CPAs and the *New Social Contract: Rise of the Warrior Accountant*, CPAs have an important role to play in the standardization and implementation of ESG reporting. As the process of solidifying sustainability metrics for intangibles like carbon offsets gets underway, progress is also likely to be made in the debate on intangibles more broadly.

The covid-19 pandemic boosted international appetites for harmonizing the 'alphabet soup' of ESG reporting frameworks. Likewise, pandemic-driven growth in the intangible economy may also boost momentum around addressing accounting for intangibles. Whether or not this takes place at the level of international accounting standards, it may drive demand for greater disclosures of intangibles.

ESG and intangibles have been firmly bundled together in Japan, where the Financial Services Agency has added IP and human capital disclosure provisions into its regulatory code on ESG.<sup>79</sup> Connections like this are seen by some as the catalyst needed to bring corporate carbon-reduction efforts to fruition. Robert McGarvey, a founder of Rethinking Capital, warns that accountants expensing intangibles like net-zero investments will impact share prices and delay climate action.<sup>80</sup>

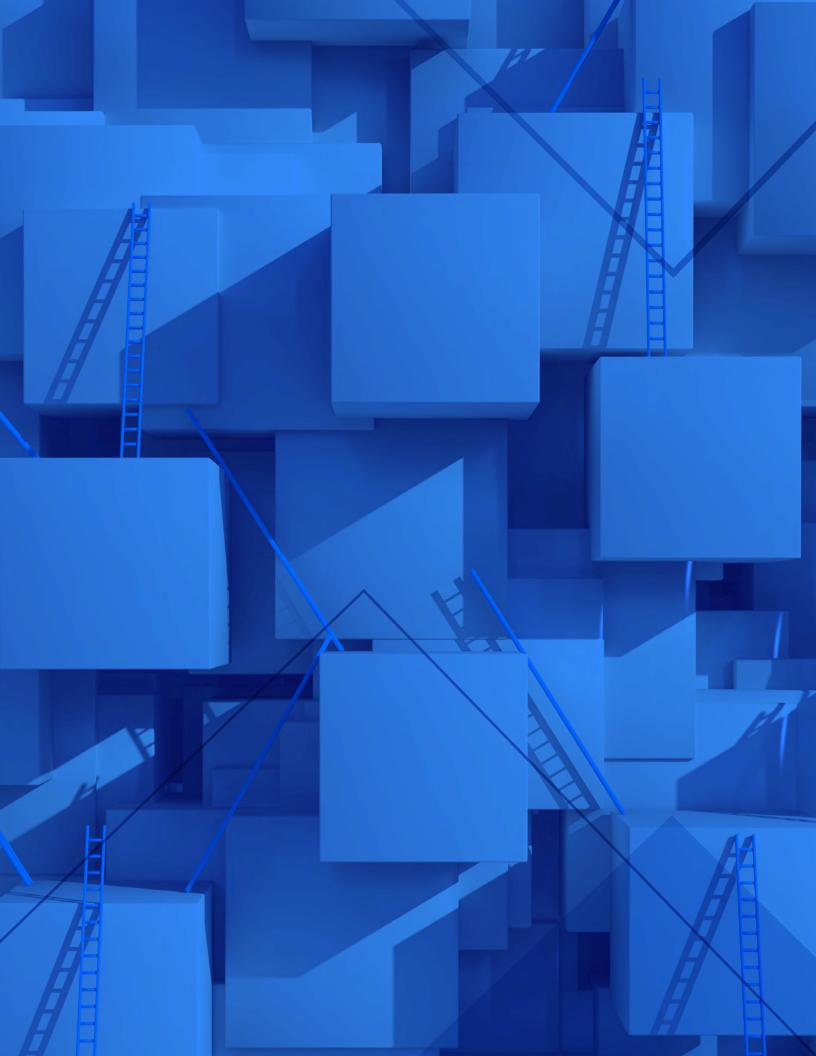
While there are no short answers to the question of how to account for intangibles, there is undoubtedly a great deal riding on it.



Imagine what difference it would make if the financial accounting system we employ were designed to recognize intangibles like corporate reputation or environmental assets or business processes in place to implement net zero. This kind of accounting would accelerate the transition to net zero.<sup>81</sup>

Robert McGarvey, founder, Rethinking Capital







#### PART 5

## WHERE TO FROM HERE?

## NEW OPPORTUNITIES FOR THE CPA PROFESSION

In light of the growing importance of intangibles, future-focused sections of the profession are encouraging CPAs to reposition themselves in the intangible economy. In an interview, Jim Balsillie has said, "The shrewd CPA will be the one that says, 'I seek to fulfill this intangible asset generation and controllership function.' They then become a critical aspect of the innovation commercialization function by helping to generate intangible stock assets ... The CPA then becomes an engine of the market capitalization of the firm. Trust me, if you're an engine of the market cap of the firm, you're into the C-suite."<sup>82</sup>

Balsillie believes that CPAs have transferable skills to equip themselves to tackle intangibles in a different way. For example, the structure for generating and controlling intangible assets is not wholly different from the structure for planning a sophisticated tax strategy. "This skill set is learnable," he adds. "It's not a case of needing to learn a new language. It's learning a syntax; the profession is already conversant in the language."

Moren Lévesque, CPA Ontario Chair in International Entrepreneurship at Schulich School of Business, York University, sees this as an opportunity for both CPAs and start-ups. "Successful entrepreneurs often remark how important it is to pay close attention to the numbers in their business, often verifying them over again, especially as their start-ups grow," she says. "These are skills accountants already have and applying more of that knowledge to the entrepreneurial ecosystem would be a great benefit."



I see no reason why this couldn't be a direction for the profession to take given the centrality of intangibles to the competitiveness of firms in this new era.

Jim Balsillie, Chair, Canadian Council of Innovators







As the issue of how to value intangibles tops agendas in the coming years, CPAs should inform themselves about the various opinions of those in the profession who are already working in the space. BDC Capital's Lally Rementilla has already seen demand rising among Canadian firms for guidance about IP and intangible assets. She advises CPAs to get ready to support their clients with this or risk losing them to advisers who are savvier on intangibles and IP.

# HOW SHOULD CPAs PROCEED?

While CPAs have an opportunity to expand the scope of their practice by applying professional skepticism and analytical tools to intangibles, it is crucial that they know where to draw the line in accordance with their fiduciary obligations.

Coming out of the covid-19 pandemic into the 'roaring twenties', CPAs may find themselves in the risky position of being associated with overly built-up valuations. And while the standards debate continues, CPAs will need to lean further back onto their fundamental principles of professional skepticism, duty of care and enhanced disclosure.

Accountants will no doubt shudder at the potential liability they could be exposed to by users of financial statements relying on contested valuation information. To be sure, CPAs must take reasonable steps to ascertain everything they can in this regard.

That means being fully transparent and disclosing everything so that users and the public are clear on what their assumptions are. For example, disclosing information about the intangibles in question and whether they are measurable, the valuation metrics that are being used, and the risks and conflicts associated with this information.

While CPAs must continue to apply existing standards for intangible assets, they are not hamstrung when it comes to accounting for intangibles. The profession is well versed in providing greater disclosure about their intangible assets and risks. Disclosure is the key. Putting more information into the hands of investors, especially those who are newer to the intangible economy, could help dislodge the intangibles debate from the impasse it has been stuck in.

# HOW IS THE PROFESSION ADAPTING TO THE INTANGIBLE ECONOMY?

Efforts are underway nationally to embed digitaleconomy skills into CPA education. The new Competency Map will roll out its redesign for CPA education requirements. It will layer additional skills and values into CPA competencies around understanding social trends and applying technology in the global economy, such as business-model innovation and data analytics.



A crucial element of the new Competency Map for the world of intangibles is integrated decision-making. This approach to making decisions with complex and integrated information helps CPAs develop the nuanced judgment required to strike a balance between the potential of intangibles and the need to remain grounded in fact rather than hypothetical values. With competencies like these designed for the knowledge economy, the next generation of CPAs will be well versed in guiding business through the shift toward intangibles.

Across the board, CPAs can position themselves to better grapple with the challenges of a growing intangible economy through awareness and education. Training will be an important first step in alleviating some of the profession's hesitancy around intangibles.

For those 97,000 CPAs already working in Ontario, the profession is developing pathways to upskill our members to grapple with intangibles. Two of those are new training opportunities for CPAs in entrepreneurial finance and innovation governance.

CPA Ontario, in conjunction with York and Queen's universities, is creating a course that deliberately connects CPA competencies with the entrepreneurial mindset of start-ups. This micro-credential in entrepreneurial finance and accounting is focused on fostering an entrepreneurial mindset. "The curriculum will help our members develop a founder's mindset and become proficient in SaaS business models and how to measure them effectively," says Carol Wilding, FCPA, FCA, President and CEO of CPA Ontario. CPA Council Member Brice Scheschuk, Managing Partner of Globalive Capital, says, "This will be a win for tech companies, too, as CPAs help them build financial and accounting rigour into their business early on."

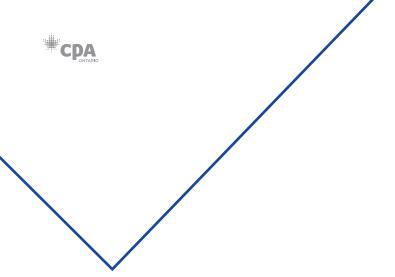


Finance and accounting cannot be a place where invention, innovation and start-ups die. We need to think differently about accounting as a partner rather than a blocker.

Brice Scheschuk, CPA, CA, Managing Partner of Globalive Capital



CPA ONTARIO INSIGHTS



A second opportunity for CPAs to upgrade skills related to the intangible economy is through CPA Ontario's partnership with the Council of Canadian Innovators' new Innovation Governance Program (iGP). This training program equips executives with the skills and resources to help fast-growing companies apply strong governance structures to the ways they can harness the value of intangible assets. "This program will not only help to expand the pool of qualified board directors with intangible governance capabilities, but it provides a pathway for more diverse board representation in the tech ecosystem," says Carol Wilding. "Many CPAs are board directors, or aspire to become one as their careers progress," she says, "and CPA Ontario is very pleased to support our members in developing the leadership capabilities necessary for the intangible economy."

In addition, CPA Ontario has developed a series of online training seminars to help members understand the issues surrounding intangibles. This professional development course, The Impact of Intangibles on Financial Reporting, offers CPAs a deeper understanding of the growing importance of intangibles, their distinctive economic characteristics, the challenges of accounting for them and some potential solutions for financial reporting.

To complement the intangibles focused course, CPA Ontario collaborated with the University of Waterloo and Ivey Academy at the Ivey Business School respectively to develop a <u>Digital Certificate in Predictive Analytics</u> and a <u>Certificate in Leadership</u> tailored for CPAs.

Beyond education and training, CPA Ontario encourages CPAs to engage in the conversation about the intangible economy. It is important for the accounting profession to consider that this discussion is not only taking place in the realm of technical accounting standards, but also across the business and policy communities. CPAs should have a voice in these discussions and weigh in on the complexities and opportunities of the intangible economy.

A place to start is CPA Ontario's speaker insights series, which aims to provide a platform for debate about Ontario's intangible economy. In addition, CPA Ontario has developed a webpage with links to further resources and the latest developments in this space. Read more.

CPA Ontario members interested in the Innovation Governance Program are encouraged to connect with the Council of Canadian Innovators. Be sure to provide your CPA Ontario member ID with your expression of interest.



## ACKNOWLEDGEMENTS

CPA Ontario would like to thank the following people who generously offered their time and expertise in the development of this paper.

Bill Armitage, CPA, CA, CBV, Partner, Toronto Valuation Services Group, EY

Jim Balsillie, FCPA, FCA, Chair, Canadian Council of Innovators

Richard Barker, Professor of Accounting, Saïd Business School, University of Oxford

Scott Chester, CPA, CA, Senior Director of Finance, Wealthsimple

Patrick Coady, FCPA, FCA, FCBV, Partner, KPMG LLP

Carol Corrado, Distinguished Principal Research Fellow in Economics, The Conference Board

Diana de Acetis, CPA, CA, Partner, Audit, Deloitte

Claudia Dessanti, Senior Policy Analyst, Ontario Chamber of Commerce

Elizabeth Demers, Professor of Financial Accounting, University of Waterloo

Guido Giammattei, Head of Research, Emerging Markets Equities, RBC Global Asset Management U.K.

Laura Girella, Senior Technical and Research Manager, Value Reporting Foundation

John Hughes, CPA, CA, Financial Disclosure and Compliance, Canadian Securities Exchange

Moren Lévesque, CPA Ontario Chair in International Entrepreneurship, Schulich School of Business, York University

Thomas Linsmeier, Professor of Accounting and Information Systems, University of Wisconsin

Jim Malackowski, CEO, Ocean Tomo

Richard Martin, Head of Corporate Reporting, Association of Chartered Certified Accountants

Royce Mendes, Executive Director and Senior Economist, CIBC Capital Markets

Robert McGarvey, Founder, Rethinking Capital

Andreas Ohl, Partner, PwC USA

Peter Ott, CPA, CA, CBV, President, Peter Ott and Associates Inc.

Lally Rementilla, CPA, CMA, Managing Partner, IP-Backed Financing, BDC Capital

Matthew Sooy, Assistant Professor, Managerial Accounting and Control, Ivey Business School, Western University

Anup Srivastava, Canada Research Chair in Accounting, Financial Disclosure and Compliance, University of Calgary

Tom Strezos, CPA, CA, CBV, Senior Business Advisor, Valuations Group, Grewal Guyatt LLP

Derek Szeto, Founder, Walnut

Alan Teixeira, Global Director IFRS Research, Deloitte

Stefano Zambon, Professor of Accounting and Secretary General, Italian Foundation for Business Reporting

Robert Zochowski, Director, Impact-Weighted Accounts Initiative, Harvard Business School

This paper was produced by CPA Ontario's research and thought leadership team. The lead author is Leonie Phillips, Director of Research and Thought Leadership, with contributions from Jessica Mudditt and Julia Siciliano.



### REFERENCES

- 1 Baruch Lev. Intangibles: Management, Measurement and Reporting. The Brookings Institution, 2001.
- W. Gu and R. Macdonald. Business Sector Intangible Capital and Sources of Labour Productivity Growth in Canada. Statistics Canada, February 12, 2020.
- 3 Jonathan Haskel and Stian Westlake. Capitalism without Capital: The Rise of the Intangible Economy. Princeton University Press, 2018.
- 4 Eric Hazan, Sven Smit, Jonathan Woetzel, Biljana Cvetanovski, Mekala Krishnan, Brian Gregg, Jesko Perrey and Klemens Hjartar. *Getting Tangible about Intangibles: The Future of Growth and Productivity?* McKinsey Global Institute, June 16, 2021. <a href="https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/getting-tangible-about-intangibles-the-future-of-growth-and-productivity">https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/getting-tangible-about-intangibles-the-future-of-growth-and-productivity</a>
- 5 Claudia Dessanti. *In Data We Trust: Unlocking the Value of Data in Ontario*. Ontario Chamber of Commerce, 2020. https://occ.ca/wp-content/uploads/OCC-DataReport.pdf
- 6 International Valuation Standards Council. *Time to Get Tangible about Intangible Assets, Part One: The Case for Realigning Reporting Standards with Modern Value Creation.* Perspectives Paper, September 2021.
- 7 "Study: The Value of Data in Canada: Experimental Estimates." Statistics Canada (July 10, 2019). https://www150.statcan.gc.ca/n1/daily-quotidien/190710/dq190710a-eng.htm
- 8 Sean Speer and Robert Asselin. "An Increasingly Intangible Economy Ruled by the Innovation Sector Requires Shifts in Determining Competitiveness." *The Globe and Mail* (March 31, 2019).
- 9 Tatiana Muntean. "Intangible Assets and their Contribution to Labour Productivity Growth in Ontario." *International Productivity Monitor 27* (Fall 2014).
- W. Gu and R. Macdonald. "Business Sector Intangible Capital and Sources of Labour Productivity Growth in Canada." Statistics Canada (February 12, 2020).
- 11 This figure was 37% of workers aged 15-64. "Working From Home During the COVID-19 Pandemic, April 2020 to June 2021." Statistics Canada (August 4, 2021). https://www150.statcan.gc.ca/n1/daily-quotidien/210804/dq210804b-eng.htm
- James E. Malackowski and Yuliana Sameroynina. "Accelerating Economic Inversion in the Post COVID-19 Economy." les Nouvelles Journal of the Licensing Executives Society LV, 1 (February 2021). <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3715018">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3715018</a>
- Ron Miller and Alex Wilhelm. "SaaS Earnings Rise as Pandemic Pushes Companies More Rapidly to the Cloud." Tech Crunch (June 4, 2020). https://techcrunch.com/2020/06/04/saas-earnings-rise-as-pandemic-pushes-companies-more-rapidly-to-the-cloud/
- 14 PwC, 24th Annual Global CEO Survey, Canadian Survey (March 11, 2021). https://www.pwc.com/ca/en/ceo-survey/24th-ceo-survey.html
- 15 James E. Malackowski and Yuliana Sameroynina. "Accelerating Economic Inversion."
- "Labour Market Report, January 2021." Ontario Ministry of Labour, Training and Skills Development (February 12, 2021). https://www.ontario.ca/page/labour-market-report-january-2021
- 17 Sean Speer, Robert Asselin and Royce Mendes. New North Star II: A Challenge-Driven Industrial Strategy for Canada. Public Policy Forum, April 2020. <a href="https://ppforum.ca/wp-content/uploads/2020/04/NewNorthStarII-PPF-APRIL2020-EN.pdf">https://ppforum.ca/wp-content/uploads/2020/04/NewNorthStarII-PPF-APRIL2020-EN.pdf</a>
- Harry Robertson. "Elon Musk's \$1.5 Billion Bet on Bitcoin Has Exposed Tesla to 'Immense' Risk that Could Wipe Out its Profits, Analysts Say." Business Insider (February 9, 2021).

  https://markets.businessinsider.com/news/currencies/elon-musk-tesla-bitcoin-bet-immense-risk-price-fall-2021-2
- 19 Sara Germano. "Beeple Collage Smashes Digital Art Record with \$69.3m Sale." Financial Times (March 11, 2021). https://www.ft.com/content/2f28eac6-547a-43f2-b7d3-593da9f46a3d
- Jacob Kastrenakes. "Nyan Cat is Being Sold as a One-of-a-Kind Piece of Crypto Art." The Verge (February 18, 2021). https://www.theverge.com/2021/2/18/22287956/nyan-cat-crypto-art-foundation-nft-sale-chris-torres#comments
- 21 Raptors Drop Shop. "Toronto Raptors 6ix Keys Collection."

  https://raptors.dropshop.io/?utm\_medium=RAPTORS\_SOCIAL&utm\_source=TW&utm\_content=LINK&utm\_campaign=RAPTORSDROPSHOP\_07202021
- 22 Helen Sullivan. "'Digital Home' Sells for \$500,000 in Latest NFT Sale." *The Guardian* (March 23, 2021). https://www.theguardian.com/artanddesign/2021/mar/23/digital-home-sells-for-500000-in-latest-nft-sale
- Justina Lee. "Insider Scandal Shakes up the Booming World of 'Illiquid JPEGs'." Bloomberg (September 15, 2021). <a href="https://www.bloomberg.com/news/articles/2021-09-15/nft-marketplace-opensea-says-employee-was-front-running-promos">https://www.bloomberg.com/news/articles/2021-09-15/nft-marketplace-opensea-says-employee-was-front-running-promos</a>
- 24 Stephen Cecchetti and Kim Schoenholtz. "Financing Intangible Capital."
- 25 Miles Kruppa. "Silicon Valley Start-Up is Applying Invoice Factoring to Subscription Companies." Financial Times (March 16, 2021). https://www.ft.com/content/54cb4f6f-e8ff-4029-84cc-61c8df3e15b4
- 26 Steph Jouppien. "How New Founders can Get Working Capital with Bad Credit." Clearco (August 19, 2021). https://clear.co/clarity/learn/how-new-founders-can-get-working-capital-with-bad-credit/
- 27 Daniel Munro and Creig Lamb. *The Intangible Shift: Changing Gears to Compete in the New Economy*. Brookfield Institute, February 2020. https://brookfieldinstitute.ca/wp-content/uploads/The-Intangible-Shift-ONLINE.pdf



- 28 C. Corrado, C. Hulten and D. Sichel. "Intangible Capital and U.S. Economic Growth." *The Review of Income and Wealth* 55, 3 (September 2009).
- 29 Erik Brynjolfsson and Avinash Collis. "How Should We Measure the Digital Economy?" *Harvard Business Review* (November-December 2019). https://hbr.org/2019/11/how-should-we-measure-the-digital-economy
- 30 Lilas Demmou, Guido Franco and Irina Stefanescu. "Productivity And Finance: The Intangible Assets Channel A Firm-Level Analysis." Economics Department Working Papers 1596. OECD, 29 January 2020. https://www.oecd-ilibrary.org/economics/productivity-and-finance-the-intangible-assets-channel-a-firm-level-analysis d13a21bO-en
- Wulong Gu and Ryan Macdonald. "Business Sector Intangible Capital and Sources of Labour Productivity Growth in Canada." Statistics Canada (February 12, 2020). https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m/2020005-eng.htm
- 32 Creig Lamb and Daniel Munro. The Intangible Shift.
- Andrew Watson. "Applications of Normative Economics & Normative Accounting for Intangibles: Rethinking Capital's Response to Bill Gates' *How to Avoid a Climate Disaster.*" Rethinking Capital (August 2021).
- 34 Stefano Zambon, Giuseppe Marzo, Stefano Bonnini, Laura Girella and Arianna Pittarello. "The Production and Consumption of Information on Intangibles: An Analysis of Some Preliminary Results." ICAS (July 7, 2021). <a href="https://www.icas.com/thought-leadership/research/the-production-and-consumption-of-information-on-intangibles-an-analysis-of-some-preliminary-results">https://www.icas.com/thought-leadership/research/the-production-and-consumption-of-information-on-intangibles-an-analysis-of-some-preliminary-results</a>
- 35 Columbia Threadneedle Investments. Grasping the Intangible: How Intangible Assets Reveal Latent Value. 2019. https://www.columbiathreadneedleus.com/binaries/content/assets/cti-blog/intangible\_assets\_t\_logo.pdf
- 36 EY. "EY Corporate Reporting Survey Data Tool, 2020." https://www.ey.com/en\_gl/assurance/corporate-reporting-survey-data-tool#1-2020-Reporting%20environment-0-1-Global
- 37 Howard M. Armitage, Gary Pooley and Soren Campos. *Performance Metrics in an Increasingly SaaS-Based World.* The CPA Ontario Centre for Performance Management Research and Education, University of Waterloo, 2020. <a href="https://media.cpaontario.ca/insights/pdf/CPAs-need-new-metrics-to-understand-digital-business-models-BRIEF.pdf">https://media.cpaontario.ca/insights/pdf/CPAs-need-new-metrics-to-understand-digital-business-models-BRIEF.pdf</a>
- 38 Lloyd's and KPMG. Protecting Intangible Assets: Preparing for a New Reality. August 2020. https://assets.kpmg/content/dam/kpmg/uk/pdf/2020/08/lloyds-intangibles-6-aug-2020-.pdf
- 39 Ponemon Institute. 2019 Intangible Assets Financial Statement Impact Comparison Report. April 2019. https://www.aon.com/getmedia/60fbb49a-c7a5-4027-ba98-0553b29dc89f/Ponemon-Report-V24.aspx
- 40 Eric Hazan et al. Getting Tangible about Intangibles.
- 41 Baruch Lev and Feng Gu. The End of Accounting and the Path Forward for Investors and Managers. John Wiley and Sons, 2016.
- 42 Gabriel Sherman. "'You Don't Bring Bad News to the Cult Leader': Inside the Fall of WeWork." *Vanity Fair* (November 21, 2019). <a href="https://www.vanityfair.com/news/2019/11/inside-the-fall-of-wework">https://www.vanityfair.com/news/2019/11/inside-the-fall-of-wework</a>
- 43 Scott Galloway. "Jumping the SPAC." No Mercy/No Malice blog (September 17, 2021). https://www.profgalloway.com/jumping-the-spac/
- Anna-Fani Constantatos, Dionysia Dionysiou, Richard Slack, Ioannis Tsalavoutas and Fanis Tsoligkas. *The Capitalisation of Intangibles Debate: Software Development Costs.* ACCA and Adam Smith Business School Research Report. Association of Chartered Certified Accountants and the University of Glasgow, June 2021.
- Tatiana Muntean. "Intangible Assets and their Contribution to Labour Productivity Growth in Ontario." *International Productivity Monitor* 27 (2014). <a href="http://www.csls.ca/ipm/27/27-tm.pdf">http://www.csls.ca/ipm/27/27-tm.pdf</a>
- 46 "Intangible Assets are Changing Investment." *The Economist* (December 19, 2017). https://www.economist.com/finance-and-economics/2017/12/19/intangible-assets-are-changing-investment
- 47 Ingrid Lunden. "Microsoft Officially Closes its \$26.2B Acquisition of Linkedln". *TechCrunch* (December 8, 2016). https://techcrunch.com/2016/12/08/microsoft-officially-closes-its-26-2b-acquisition-of-linkedin/
- 48 Microsoft. "Annual Report 2019." (August 1, 2019). https://www.microsoft.com/investor/reports/ar19/
- 49 Anup Srivastava. "The Numbers Don't Add Up." Dialogue (September 24, 2021). https://dialoguereview.com/the-numbers-dont-add-up/
- 50 Vipal Monga. "Accounting's 21st Century Challenge: How to Value Intangible Assets." Wall Street Journal (March 21, 2016). https://www.wsj.com/articles/accountings-21st-century-challenge-how-to-value-intangible-assets-1458605126
- Jean-Paul Gauzès, President, Accountancy Europe. "Accountancy Europe Comment Letter IASB's Third Agenda Consultation, EFRAG's Draft Comment Letter and Own Proactive Research Agenda Consultation." (July 13, 2021). <a href="http://eifrs.ifrs.org/eifrs/comment\_letters/587/587\_28500\_JonaBashaAccountancyEurope\_0\_210917IASBThirdAgendaConsultation\_ACEresponse.pdf">http://eifrs.ifrs.org/eifrs/comment\_letters/587/587\_28500\_JonaBashaAccountancyEurope\_0\_210917IASBThirdAgendaConsultation\_ACEresponse.pdf</a>
- 52 Anna-Fani Constantatos et al. The Capitalisation of Intangibles Debate.
- Robert McGarvey, Founder of Rethinking Capital. "Constrained by Accounting." Panel discussion at the Global Solutions Summit, May 27–28, 2021. https://www.global-solutions-initiative.org/events/summit/summit-2021/
- 54 Alan Teixeira. "The Development of IFRS Requirements for Intangibles." Working paper. 2020.
- Hans Hoogervorst. "Speech: IASB Chair on What Sustainability Reporting Can and Cannot Achieve." IFRS. Speech to the Climate-Related Financial Reporting Conference, Cambridge, U.K., April 2, 2019. <a href="https://www.ifrs.org/news-and-events/2019/04/speech-iasb-chair-on-sustainability-reporting/">https://www.ifrs.org/news-and-events/2019/04/speech-iasb-chair-on-sustainability-reporting/</a>
- Vijay Govindarajan, Shivaram Rajgopal and Anup Srivastava. "A Blueprint for Digital Companies' Financial Reporting". Harvard Business Review (August 3, 2018)



- 57 Howard M. Armitage, Gary Pooley and Soren Campos. Performance Metrics in an Increasingly SaaS-Based World.
- Vijay Govindarajan, Shivaram Rajgopal and Anup Srivastava. "Why Financial Statements Don't Work for Digital Companies."

  \*\*Harvard Business Review\* (February 26, 2018). <a href="https://hbr.org/2018/02/why-financial-statements-dont-work-for-digital-companies">https://hbr.org/2018/02/why-financial-statements-dont-work-for-digital-companies</a>
- 59 Vijay Govindarajan, Shivaram Rajgopal and Anup Srivastava. "Why We Need to Update Financial Reporting for the Digital Era."

  Harvard Business Review (June 8, 2018). https://hbr.org/2018/06/why-we-need-to-update-financial-reporting-for-the-digital-era
- 60 Howard M. Armitage, Gary Pooley and Soren Campos. Performance Metrics in an Increasingly SaaS-Based World.
- 61 Ibid
- 62 Wulong Gu and Ryan Macdonald. "Business Sector Intangible Capital and Sources of Labour Productivity Growth in Canada."
- Johary Razafindratsita. "Economic Measurement in the Digital Era: Measuring the Unmeasurable." TD Economics (February 12, 2019). https://economics.td.com/us-economic-measurement-digital-era
- Prasanna Tambe, Lorin M. Hitt, Daniel Rock and Erik Brynjolfsson. "Digital Capital and Superstar Firms." Hutchins Center Working Paper #73. Brookings, March 2021. https://www.brookings.edu/wp-content/uploads/2021/01/WP73-Tambe-et-al.pdf
- Brand Finance. Canada 100 2021: The Annual Report on the Most Valuable and Strongest Canadian Brands. March 2021. https://brandirectory.com/rankings/canada/
- Ross Marowits. "Overheated Stock Market at Risk of Bubble in a Disconnect from Economy, Experts Say." CTV News (February 14, 2021). https://www.ctvnews.ca/business/overheated-stock-market-at-risk-of-bubble-in-a-disconnect-from-economy-experts-say-1.5309779
- 67 BBC Analysis. "Chasing Unicorns." BBC Radio 4 (November 15, 2020). https://www.bbc.co.uk/programmes/m000pfdq
- 68 United States Securities and Exchange Commission, "SEC Charges Former CEO of Technology Company with \$80 Million Fraud." Litigation Release No. 25182. August 25, 2021. https://www.sec.gov/litigation/litreleases/2021/lr25182.htm
- 69 Hindenburg Research. "Nikola: How to Parlay an Ocean of Lies Into a Partnership with the Largest Auto OEM in America" (September 10, 2020). <a href="https://hindenburgresearch.com/nikola/">https://hindenburgresearch.com/nikola/</a>; "We View Nikola's Response As a Tacit Admission of Securities Fraud" (September 15, 2020). <a href="https://hindenburgresearch.com/nikola-response/">https://hindenburgresearch.com/nikola-response/</a>
- 70 Hindenburg Research. "HUMBL: Illusions of Grandeur, Collapsing International Deals and Lurking Dilution" (May 20, 2021). https://hindenburgresearch.com/humbl/
- 71 Stefano Zambon et al. "The Production and Consumption of Information on Intangibles."
- 72 International Financial Reporting Standards Foundation. "Meet the new IASB Chair Andreas Barckow" (July 1, 2021). https://www.ifrs.org/news-and-events/news/2021/07/meet-the-new-iasb-chair-andreas-barckow/
- 73 International Financial Reporting Standards Foundation. "IASB Third Agenda Consultation, Feedback Summary Potential Projects (Part 1)." IFRS Staff Paper (November 2021). https://www.ifrs.org/content/dam/ifrs/meetings/2021/november/iasb/ap24d-third-agenda-consultation-feedback-summary-potential-projects-part-1.pdf
- 74 Anna-Fani Constantatos et al. The Capitalisation of Intangibles Debate.
- 75 FASB. "Accounting for and Disclosures of Intangibles." Updated June 8, 2021.

  https://www.fasb.org/cs/ContentServer?c=FASBContent\_C&cid=1176169433424&d=&pagename=FASB%2FFASBContent\_C%2FProjectUpdatePage#DR\_Intangibles
- 76 Tax Policy Center. What is Global Intangible Low-Taxed Income and How is it Taxed Under the TCJA? Tax Policy Center, May 2020. https://www.taxpolicycenter.org/briefing-book/what-global-intangible-low-taxed-income-and-how-it-taxed-under-tcja
- 77 Matthew Cranston. "Business Push for Cloud Computing to be Tax Deductible." *Australian Financial Review* (May 3, 2021). https://www.afr.com/policy/economy/business-push-for-cloud-computing-to-be-tax-deductible-20210503-p57of6
- 78 Margaret Carig-Bourdin. "Data Governance a Key Focus as CPA Profession Looks to the Future." CPA Canada (January 31, 2020). https://www.cpacanada.ca/en/news/innovation/2020-01-31-data-governance
- 79 Jacob Schindler. "Japan's Corporate Watchdog Calls for High-Level Emphasis on Intellectual Property." IAM Media (August 18, 2021). https://www.iam-media.com/copyright/japans-corporate-watchdog-calls-high-level-emphasis-intellectual-property
- 80 Robert McGarvey, Founder of Rethinking Capital. "Constrained by Accounting." Panel discussion at the Global Solutions Summit, May 27-28, 2021. https://www.global-solutions-initiative.org/events/summit/summit-2021/
- 81 Ibid
- 32 Jim Balsillie. "Guardians of the Innovation Economy." LumiQ. Chapter 1. https://lumiq.luminari.co/episodes/1KIGHmNmCl58kVB4RPYv



### Notes



### Notes

