



Corporate Reporting of Intangible Assets: A Progress Report

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ABOUT THIS PAPER AND ACTION REQUIRED

At its last meeting, the Committee agreed to contribute to the Organisation's two-year horizontal project on *New Sources of Growth: Intangible Assets*, with a report covering the reporting of intangible assets (IA) and progress made in this area in recent years. This report provides an update on the nature and quality of reporting on intangible capital in member countries, building on prior work of the Committee in this area.

This report explores four interlinked issues related to reporting of intangible assets, namely: 1. collection and management of information on intangibles, 2. external reporting on intangibles, 3. use of such reporting by analysts and investors, and finally 4. political economy of reform.

The report seeks to shed light on potential reasons for the varied adoption of intangibles reporting by companies and explore factors accounting for this. In its concluding section, it outlines several potential options available to governments interested to facilitate better intangibles disclosure.

As agreed by the Committee during its November 2011 meeting, an abstract of this paper as well as key messages for the May 2012 OECD Ministerial were approved by the written procedure of the Bureau. These are provided in Annex I of this paper. This paper was de-restricted by the Committee during its April 2012 meeting.

INTRODUCTION

Already in the early 1990s, the importance of intangible resources and the difficulty of accounting for them were raised and has grown steadily ever since. Today, intangible assets (IA) such as employee skills, knowledge, trade secrets software, copyrights and patents, customer and supplier relationships are increasingly recognised as important corporate assets, contributing significantly to a firm's competitiveness. Recent years have even seen the rise of a "conceptual company", characterised by low relevance of physical assets in favour of intangible intensive activities.¹

Estimates of the value of intangibles, particularly in human capital intensive, high technology, innovative companies have increased, though they vary by country. For example, finance directors surveyed as part of one study believed that 50% or more of corporate value is attributable to intangible assets (APCA, 2010). At the same time, the ability to incorporate IA in current accounting frameworks appears to be limited² and hence, the value relevance of accounting information has deteriorated, especially in sectors characterised by high intangible capital.

This observation raises serious questions about the continued relevance of financial reporting and places growing expectations on non-financial reporting to bridge the information gap. There is a growing consensus among practitioners and policymakers that better reflection of intangibles is required in non-financial reporting in order to improve its relevance to users. Much academic research has focused on exploring this question, and in so doing, trying to establish the value of improved IA reporting for company valuations or access to credit, which has proven difficult given concerns about causality.

Despite this active interest in promoting IA reporting, progress appears weak. Information about the adoption of IA disclosure frameworks by companies is not readily available. However, there are indications that adoption has not been widespread. This is indeed the central issue that this report attempts to explore by examining the entire chain of management of IA information, from collection of data and asset management, to reporting of intangibles information by companies and its use by investors and analysts.

As a first step, Part I of the report examines the incentives and challenges faced by executives, management and boards in collecting information and managing IA assets. While the motivation for executives to adopt relevant management tools should be in principle strong, the assumption needs to be examined in light of practical obstacles and organisational dynamics. The incentives for disclosure of information on intangibles are examined in Part II of the report, which seeks to present a picture of current reporting practices and establish how and why companies choose to communicate IA information.

¹ Zambon (2009) refers to the "conceptual company" as one implementing flexible business models, simultaneously delocalising low knowledge activities such as manufacturing or distribution.

² One prominent study investigated market-to-book value ratio for S&P 500 companies and concluded that that over 80% of company valuations were not included in the financial statements (Lev, 2002). Likewise, Beattie and Thomson found that the mean market-to-book ratio of UK FTSE 100 companies rose to 7 in 2010, from of 2.5 in 2005 (ICAS, 2010). That said, such studies often assume that the difference between market and book values of companies is necessarily attributable to intangible capital but other factors such as future expectations are important.

Part III of the report examines the use of IA reporting by analysts and investors, seeking to establish whether it is valuable in satisfying specific information gaps and improving narrative reporting more generally. Finally, Part IV of the report reviews the political economy of intangibles reporting in the context of other initiatives to improve narrative reporting. Independently of the quality of IA reporting, the quality of narrative reporting has and continues to be subject to frequent criticism, despite the fact that its volume has grown tremendously to address compliance concerns and to communicate with stakeholders on a wider set of issues.

In responding to concerns regarding the relatively weak adoption of IA reporting, the report does not take for granted that better disclosure is always justifiable. It rather takes a more pragmatic view that such reporting may not be feasible for some companies in view of its costs. That is, enhanced IA reporting, in so far as it remains voluntary, should be perceived by companies as having specific benefits such as easier access to credit, improved stakeholder relations or enhanced analyst coverage. Policy options to facilitate IA disclosure are therefore clearer. Examples of such policy measures are presented at the end of the report.

PART I. COLLECTION AND MANAGEMENT OF IA INFORMATION

Motivation and resources for data collection

While a great deal of research attempts to elucidate the benefits of better IA management and reporting, few surveys of executives have been conducted that aim to understand their information needs and management practices. Better understanding of whether measurement and management of intangible assets is perceived as being beneficial by executives and for what purposes is crucial to better grasping how intangible assets are treated within the firm. It is important to differentiate the perceptions of executives and lower level management, who often has better understanding of how intangibles fit in the value creation process.

Several key questions can be raised in this regard. First of all, how do firms select a suitable framework for management and reporting on their intangibles? How are the key performance indicators (KPIs) selected for which data can be collected? What organisational structures and process are necessary to support this effort? While these questions may sound banal, answering them is difficult and the structure of IA management systems is complex, particularly in large companies where size and complexity of processes make even internal reporting difficult.

More often than not, companies wishing to set up processes for IA management require dedicated human resources and expert support. Such support is offered by consulting companies, business and professional associations, and even boutique firms specialising in intangible asset management. Private equity or other professional investors may provide targeted support insofar as they may require their investee companies to establish IA management mechanisms and to report on specific key performance indicators.

The ultimate motivation for companies to introduce IA data reporting and management tools varies depending on the maturity of the company, the availability of resources to support this exercise and other factors. Corporate efforts to collect IA information are not exclusively driven by companies' desire to report externally. On the contrary, interviews with industry participants highlight that many companies,

especially young ones, collect data or information on their IA strictly with the view to improve their management of such assets (InCas, 2012).

Generally speaking, the collection of information on intangibles is conditioned by whether information is seen as being valuable for the overall strategy of the firm or for a particular decision. Research demonstrates that management may be interested in one or more specific components of IA and not the wider picture, because this particular component of IA relates to the growth and development of the firm and is therefore critical for board monitoring. This observation is indeed corroborated by prior research that finds that some specific intangibles have greater impact on the performance of individual firms than others (Clarke, 2011).

There are several key reasons for collecting information on intangibles for decision-making, including focusing attention on key assets, supporting risk management and innovation, creating resource-based strategies and monitoring the effects of certain strategies, translating business strategy into actionable measures and improving management of the enterprise as a whole (Andriessen, 2004). IA data collection can be motivated by more specific reasons such as due diligence in the context of a merger or an acquisition. In fact, one of the main motivations of IA reporting is in fact a better understanding of intangibles and the learning process that companies need to go through to arrive at it (Sveiby, 2010).

One of the key questions that arise with respect to internal management of IA is what incentives do managers have to establish systems to collect and manage the company's intangible capital and how they select which assets, and therefore what metrics, are more appropriate than others. This question cannot be adequately answered without consideration of company dynamics and their complexity. Fundamentally, managers' perspective regarding the utility of collection of IA-related information are dependent on their view of the importance of intangibles in getting easier access to capital, higher company valuations or better analyst coverage.

A number of studies have made positive associations between better management and disclosure of intangibles and financial performance (measured as company valuation or profitability), although the issue of causality and impact of other variables have not been fully addressed. A criticism often made of available studies is that because IA management processes are costly to introduce, only relatively successful enterprises can afford to put them in place. Therefore, it is difficult to say unequivocally whether it is IA management and reporting that improves their performance.

Board members should have an incentive to inform themselves about the company's intangibles where relevant. The OECD Principles advocate that board members should act on a fully informed basis and that they are responsible for reviewing and guiding corporate strategy and major plans of action. Whether boards can act on a fully informed basis in companies characterised by significant intangible assets is an important question. So far, there is little evidence that boards explicitly demand information about intangible capital. In KPMG's survey of non-executive directors (2003), more than 60% noted that they were not very knowledgeable about non-financial performance indicators due to the fact that information provided by executives is mainly financial; this situation does not appear to have evolved significantly.

Available methodologies and instruments

There are a number of methodologies for measuring and reporting of intangibles. The evolution of reporting frameworks to accommodate IA disclosure began in 1990s and was primarily driven by private sector interest and academic research. OECD's previous report on *Intellectual Capital and Value Creation (2006)* presented a variety of approaches for measurement and reporting. Although these approaches have been refined and extended over the past 5 years, the major conceptual foundations of this work were laid

down in this earlier period. Annex II provides a summary of over 40 approaches documented by Sveiby in 2010, less than a quarter of these have been developed in the last 5 years.³

Most reporting frameworks developed to date favour a qualitative approach where intangibles are reported in a narrative format, to complement financial reporting. Very few approaches to date have sought to develop a methodology for valuation of intangibles, recognising the difficulty of incorporating such valuation figures in the financial reporting. On the national level, only one approach developed by a French organisation, l'Observatoire de l'Immateriel, and supported by the French Ministry of Finance provides a methodology for the valuation of intangibles to complement existing financial reporting.

More generally, quantitative methods for valuation of intangibles take the form of either 1. "direct valuation methods", which estimate the monetary value of intangible assets by identifying its various components and directly evaluating them, either individually or collectively, 2. "market capitalisation methods" which calculate intangible assets as the difference between a company's market capitalisation and its stockholders' equity, or 3. "return on asset methods" which seek to calculate companies' annual earnings from intangibles (Sveiby, 2010).

An alternative classification is provided by the French Thésaurus-Bercy which identifies 1. "the cost approach" which seeks to estimate the cost of replacement of a particular asset, 2. "the comparability approach" which seeks to estimate the value of a particular asset with reference to other transactions in similar asset types, 3. "the cash flow approach" which seeks to gauge cash flows arising from a particular intangible asset and finally 4. "the real options approach" which seeks to estimate the cost of a right, with no obligation, to purchase a given intangible asset at fixed price on a given day.

Few OECD member countries have introduced national recommendations or guidelines on reporting of intangible assets. With the exceptions of Denmark and Japan, most guidelines, even at the national level, were developed by private sector initiatives to support better narrative reporting which was expected to lead to better company valuations. The French guidelines are unique in trying to go beyond providing a disclosure framework to outlining a methodology for quantifying intangibles. This does not imply that such estimates should be part of the financial accounts. Box 1 provides additional information about national reporting guidelines.

³ Indeed, when Andriessen did a similar analysis in 2004, he already identified approximately 30 methods.

Box 1. National guidelines on IA management and reporting

France: In October 2011, the *Observatoire de L'Immateriel* released an instrument for the valuation of intangible capital, prepared by a group of experts at the request of the former Finance Minister Christine Lagarde. This instrument, called *Thésaurus Bercy*, proposes an extension of reporting under IAS or IFRS that allows assigning a financial value to assets that cannot be recognised in the current accounting frameworks. This approach does not propose to extend the scope of traditional accounting, nor does it focus on narrative reporting, which has been the approach of most other jurisdictions. Instead, it proposes to value IA and disclose a valuation as an extension of financial reporting. This approach, initially developed 5 years ago, has been used by many French companies wishing to formally communicate their IA or to develop internal metrics for tracking IA.

Japan: the Ministry of Economy, Trade and Industry (METI) of Japan has been at the forefront of global efforts on intangibles reporting, releasing an *Intellectual Property Policy Outline* in 2002, which was followed up by a *Pilot Model for Disclosing Patent and Technical Information* in 2003. Finally, the *Guidelines for Intellectual Property Information Disclosure* were released by METI in 2004, marking a turning point in the focus of the Ministry on IA more broadly as opposed to research and development, patents and other more narrow asset classes. The Ministry has also issued some suggestions for SMEs on how they can make more effective use of their intangible assets. It is estimated that close to 200 SMEs in Japan have so far published IC reports and 600 companies have publicly disclosed some information on their IC strategy and its implementation.

Denmark: the Ministry of Science, Technology and Industry released its first *Guidelines on Intellectual Capital Reporting* in 2000; revised Guidelines were made available in 2002. These guidelines aim to support the development of Intellectual Capital Statements by Danish companies, which are to include a description of the corporation's four knowledge resources: employees, customers, processes and technologies. The same initiative produced, in 2003, a framework for *Analysing Intellectual Capital Statements* in order to offer analysts a systematic method for reading and interpreting them. Denmark is unique in that its Accounting Law requires companies with significant IA assets to report on them. Verification of such assets by external auditors is a common practice and is subject to existing recommendations.

Germany: In 2004, a consortium of several companies and institutions launched an initiative that developed *ICS-Made in Germany* framework. The experiences of this project inspired the emergence of a German guideline on reporting of IC *Wissensbilanz-Made in Germany* and later the launch of the *InCas guidelines* in 2008 to promote disclosure in Germany but also to identify common grounds of IA reporting in Europe. These guidelines are targeted towards SMEs. The categories of intangibles included in these guidelines are human, social and relational capital. Currently, few listed companies in Germany have embraced IA reporting but it is reported that adoption among SMEs is much more widespread.

Sweden: Since 1986, Statistics Sweden conducts a voluntary survey on intangible assets that covers all manufacturing companies with more than 500 employees. Although the government had debated introducing mandatory guidelines on IA disclosure for all companies with more than 100 employees, this proposal has never been submitted to the Parliament. However, in 1993 the Swedish Council for Service Industries issued a recommendation for its member companies to use a number of indicators describing their human capital in annual reports. Furthermore, the Ministry of Industry, Employment and Communications has supported EU's MERITUM Project (discussed later in this paper) and continues to support research in this area.

The motivations for introducing national IA reporting guidelines appear to have been different. For the most part, these initiatives were piloted by Ministries of Finance as part of a wider attempt to better capture economic value-added or by Ministries of Economy or Industry in connection with initiatives designed to support innovation, primarily in small and medium size enterprises (SMEs). Jurisdictions where governments were involved in the development of guidelines on IA reporting have tended to view their national value-added and productivity undervalued by traditional methods and by markets. In Japan, government interest in encouraging companies to report on intangible assets was driven by low company valuations and their vulnerability to takeovers, including by foreign competitors.

It is unclear whether these national guidelines have advanced disclosure much further than in jurisdictions with no such guidelines. For instance, while the incidence of IA disclosure in German listed

companies is extremely low, in Spain, all IBEX 35 companies provide intangible capital disclosures (Sanchez, 2011). On the other hand, IA reporting is said to be quite developed in German SMEs, whereas it is seen as lacking in Spanish SMEs. That said, a related challenge is that because guidelines are voluntary⁴ and because no central government entity is charged with the mandate of monitoring the IA reporting, the extent of adoption of these guidelines, either among listed or privately owned companies is largely unknown.

Irrespective of existing guidelines, country characteristics play a role in determining the extent and the format of IA disclosure. In OECD member countries, the incidence of IA disclosure appears to be highest in Norway, Sweden, Spain, Denmark, and Japan, although statistics are not readily available. This is due to the fact that these countries are characterised by a relatively large stock of intangibles in their economies. As noted earlier, some, but not all of these jurisdictions, have introduced voluntary guidelines for reporting on intangibles.

27. Guidelines on IA disclosure developed as a result of international efforts also have this voluntary nature (Box 2). The benefit of these guidelines is that their adoption could in principle result in some consistency in reporting beyond national boundaries. The other benefit of these frameworks is that they were created through an effort that allowed for diverse inputs to be taken into account. So far, few of these existing guidelines have an explicit ambition of becoming an internationally recognised reference. There is currently no evidence of companies gravitating to one of these frameworks.

⁴ Companies are generally not mandated to provide reporting on their intangibles, barring specific circumstances such as bankruptcy and re-organisation or in support of litigation or dispute resolution related to, for instance, infringement of intellectual property rights (Andriessen, 2004).

Box 2. International Frameworks and Guidelines

The World Intellectual Capital Initiative (WICI), established in 2007 with the OECD's assistance, is one of the key institutions driving the IA reporting agenda globally. WICI is a private-public sector collaboration established with the objective of developing a global framework for measuring and reporting overall corporate performance to shareholders and other stakeholders. WICI's basic premise is that companies need to make clear the value creation mechanism, the specific assets that are linked to value creation, the company's perspective regarding future risks, as well as opportunities and strategy. The emphasis on innovation and value creation through explicit links with KPIs is a unique aspect of the WICI framework.

A key output of WICI's work is a *Framework and Guidance for Integrated Business Report* which encourages comprehensive reporting on the landscape, strategy, resources and processes, as well as value creation and its drivers. It is supported by XBRL. To supplement this framework, WICI has focused on the development of KPIs that reflect a range of market, industry and company specific factors. Industry KPIs have been developed for the automotive, telecommunications, electronic devices and pharmaceuticals sectors; others are currently under preparation. Examples of sector specific KPIs include: number of new models of eco cars and their sales performance for the automobile sector or number of test cases for the pharmaceutical industry.

The European Commission issued the MERITUM Guidelines in 2002. These guidelines provide a conceptual framework for reporting and management of intangibles, including the preparation of an Intellectual Capital report. The MERITUM guidelines were created out of an EC supported project that identified best practices in European firms and constituted the first attempt to create an international conceptual framework for intangibles management and reporting. The Guidelines describe how to prepare an Intellectual Capital Report and outline its contents (i.e. vision of the firm, summary of intangible resources and activities and a system of indicators). The Guidelines conclude with recommendations on how to collect the relevant information, who should prepare the information and the frequency of reporting.

InCas is a reporting model designed to help SMEs with the management and reporting of IA in the form of an intellectual capital statement and certified by professionals from Fraunhofer Institute for Production Systems and Design Technology in Berlin. InCas aims to provide a pan-European model for IA reporting for SMEs, even though it is not formally adopted by the EC. The originality of the model is that it proposes an internal version of an IA statement to be prepared, on which the external model is structured. InCas is currently looking to implement its reporting model in other countries in Europe and also in Latin America, with the support of business associations in the respective countries. So far, this model has not been implemented widely in Europe, and can be best described as a well developed pilot project.

The European Federation of Financial Analysts Societies (EFFAS) has established a Commission on Intellectual Capital and has issued the *Principles for Effective Communication of Intellectual Capital* in 2008. These principles advocate that companies prepare a separate intellectual capital report as well as include information on intellectual capital in Management Discussion and Analysis. The aims of the EFFAS in issuing these Principles are to: promote the measurement and disclosure of IA, highlighting the needs of financial professionals; to promote standardisation of the disclosure format to keep costs to the minimum and facilitate benchmarking; and to foster the valuation of the information on intangibles by financial analysts.

PART II. DISCLOSURE OF INFORMATION ON INTANGIBLES

This second part of the paper focuses on the objectives and impact of IA disclosure to shareholders, analysts and the wider market. In particular, the scoping paper proposed to investigate why some companies decide to publicly disclose information on their intangibles, while others chose not to. In line with this objective, this section explores the factors leading to the disclosure of certain types of IA

information, the format of such disclosures, the benefits that accumulate to companies which have adopted IA reporting, and the corporate governance variables that might affect company reporting practices.

Reporting on IA is in principle motivated by the same considerations as any other type of voluntary disclosure – that is, the desire to increase market valuation, enhance access to credit and attract investors. Disclosure is principally targeted at investors, although it may be also targeted at partners in cases of mergers or acquisitions or even to more specific categories of users such as potential employees, lawyers and bankruptcy judges in the cast of bankruptcy proceedings. In many cases, IA disclosure is intended for multiple audiences and is thus prepared in such a way as to satisfy these specific categories of users.

Factors affecting external disclosure

The previous section has already explored the motivation for executives and lower level management to systematically collect and manage data and information on intangibles, and report them to the board. However, the incentives for reporting this information externally may differ. Perhaps the primary motivation for disclosing such information is to bridge the information gap created by the inability of the current accounting frameworks to communicate the value of intangibles. While the overall rationale disclosing additional information on intangibles to the market is clear, company-specific motives differ.

Industry differences, ownership, and company size are often used in the literature as factors explaining the scope and sometimes even the channels of disclosure. It is difficult to draw generalisations from these since most studies focus on a single jurisdiction and hence, their conclusions drawn may not be applicable to other jurisdictions. The additional difficulty faced by these studies is that "establishing relationships indirectly between disclosure and other firm characteristics involves both constructing a measure of disclosure (which is problematic) and using proxies to capture the unobservable disclosure incentives and disincentives, such as those related to information asymmetry and competition" (ICAS, 2010).

There is no conclusive evidence that company size dictates the extent of IA disclosure. Some studies have found that younger companies provide more IA disclosure because they are more likely to seek capital as opposed to mature listed firms that have access to funds. Recent evidence confirms that IA reporting by younger, technology intensive companies is beneficial. For instance, a project carried out by experts from the academia, government and companies in Spain in 2010 showed that a reliable and comparable report on intangibles is highly beneficial for these companies (Sanchez, 2011). OECD's prior work also found that financial markets especially reward SMEs for increased disclosure (OECD, 2006).

That said, young, developing companies face financial and human resource constraints when it comes to introducing IA management and disclosure frameworks. While they might stand to most benefit from enhanced IA disclosure, their capacity to report on it may be limited by lack of resources, but also due to the lack of standardisation. Since the EC's RICARDIS report (2006) which encouraged policy initiatives to foster the standardisation of IA reporting practices for research-intensive SMEs, not much progress in this area has been made. That does not, however, mean that smaller companies do not track their intangible capital; it may just be the case that their ability to report it formally is constrained.

It appears that better disclosure occurs in high technology sectors where IA are significant and where the gap between accounting and market values tends to be large. For instance, a recent study focusing on the Australian market found that although disclosures about intangibles was generally low, companies operating in high technology or knowledge-intensive industries had more extensive disclosure (Whiting, Woodcock, 2011). Likewise, Vafaei *et al.* (2011) conclude that IA disclosure is noticeably higher in non-traditional industries in Britain and Australia, whereas it was found to be relatively minimal in traditional industries, even though they might have important skills and know-how. A study of IA disclosure of pre-

IPO firms on Copenhagen Stock Exchange also found that industry classification and ownership were variables found to most influence the extent of IA disclosure (Bukh *et al*, 2005).

Recent surveys show that capital market-related incentives for IA disclosure are extremely important (ICAS, 2010) and indeed some evidence confirms that IA disclosure has a positive impact on market capitalisation of companies (Abdolmohammadi, 2005; Lajili and Zéghal, 2005). However, the hypothesis that IA disclosure can positively affect share price is not unambiguous. One study of disclosure of IA information in prospectuses of firms conducting an IPO on the Singapore Stock Exchange found a negative association between such disclosure and post-issue stock performance (Singh and Van der Zahn, 2009).⁵ That said, one of the primary motives for better disclosure by listed firms is to correct an undervalued share price and to reduce the cost of capital.

While most of this section has dealt with the benefits of external IC disclosure, the benefits for management or specific shareholders of not disclosing certain assets need to be also addressed. First, the risk of litigation in connection with information disclosed in a narrative format – even without trying to quantify IA as the French guidelines suggest – exists. In the United States, the Management Discussion and Analysis section is governed by specific regulations and is subject to SEC oversight, leading to a more legalistic approach to narrative reporting by companies (PWC, 2007). In addition, companies might find it difficult to find auditors willing to issue an opinion on their intangibles.

Second, situations where executives or some of the main shareholders do not wish to disclose information on IA such as innovations to be patented or other assets with significant future financial benefit could raise questions about market manipulation.

Format of disclosure

In most jurisdictions, intangible assets were, and continue to be, recognised on the financial statements if their market value can be established through a transaction with a third party, as is the case of patents or trademarks which when acquired as part of a merger, can be considered as part of goodwill and periodically re-valued. The notion of "fair value" continues to dominate the thinking on asset recognition in IAS and IFRS. Many items, such as internally generated goodwill, brands, customer lists and some product development costs cannot be recognised. The recognition of intangibles as part of goodwill has been subject criticism on the basis that "goodwill is like soup, we do not necessarily know what is inside" (Zambon, 2011).

Attempts to value intangibles have been advanced by the work of the International Valuation Standards Council (IVSC) and initiatives such as the Thésaurus-Bercy developed by the l'Observatoire de l'Immateriel in France (refer to Box 1 above). The IVSC, after four years of consultation with valuation professionals, auditors and users of reporting has released updated guidance on the valuation of intangible assets in 2010. Guidance Note 4 identifies principal techniques used for the valuation of intangible assets such as brands, intellectual property and customer relationships, and provides guidance on how these can be applied.

As a result of existing limitations to recognise intangible assets on company's balance sheets, disclosure has gravitated towards the narrative format. Generally speaking, narrative disclosure can take several forms: companies can publish an Intellectual Capital Statement⁶ or include a description of their

⁵ The authors explain this correlation by the fact that greater IA disclosure contributes to investor optimism leading to higher IPO pricing, which may not be sustainable in the longer term.

⁶ A number of models such as those put forth by EU's MERITUM or InCas projects, favour the disclosure of a separate statement. However, this practice has not taken root and most companies make their IA

intangible assets in the Management Discussion and Analysis (MD&A) section or the ESG/sustainability report.

Narrative reporting need not be purely qualitative and can include valuations and external validation of reported figures. Although models to disclose IA qualitatively have abounded, models designed to provide a financial valuation of such capital are fewer and services for audit of valuations of IA can be described as only emerging. A number of IA disclosure methodologies favour the use of KPIs, which can be tailored based on the industry. This approach has been advocated by WICI's framework. It is also consistent with the findings of the OECD's earlier work which recommended that companies release a few significant indicators to support more extensive contextual and narrative reporting, which are standardised, linked to a revenue stream, forward looking and difficult to manipulate (OECD, 2006).

That said, the use of KPIs does not appear to have taken root in the corporate sector. Only 15% of Fortune Global 500 companies report any KPIs, despite the fact that they are very much valued in the investor community (PWC, 2007). In some countries however, disclosure of KPIs appears to be much more advanced. For instance, in Sweden, over 85% the top 30 listed companies claim to communicate non-financial KPIs in their annual reports (Arvidsson, 2011).

Finally, it is impossible to discuss IA reporting without touching on the channels for its disclosure. So far, in evaluating the levels of disclosure, researchers have focused on examining annual financial reports. The focus on the annual report in the analysis of IA disclosure is premised in part on the assumption that what is communicated in these reports is a good proxy of reporting across all channels of communication, and in part due to ease of access to annual reports as opposed to analyst briefings and bilateral discussions between companies and potential investors.

However, the usefulness of the annual report in disclosing new, previously undisclosed information has already been questioned (ICAS, 2010), especially in the light of continuous reporting requirements. Unerman *et al.* (2007) found that preparers of financial statements did not consider the annual report as an appropriate source of communication of IA information and that UK companies disclosed less than a third of total IA disclosure in the annual report. Research confirms that a great deal of IA information is communicated in company road shows and private meetings between companies, investors and analysts (Holland, 2002). Investor conferences, although open to the public, confer access to information to those in attendance (Bushee, Jung and Miller, 2011).

Such conferences and bilateral briefings enable investors to make more informed trading decisions. One piece of research found that a bilateral meeting between a publicly traded firm and an investor changes the probability of increasing a fund's position by 21% on average (Solomon and Soltes, 2011). This indicates that these channels of communication are effective in enabling companies to better elucidate the link between their value drivers and their strategy, which may fill important information gaps for investors.

Corporate governance and IA disclosure

The incentives for IA disclosure have already been touched on in this paper, primarily from the perspective of management and executives. Other governance variables, such as for example, the composition of the board or the ownership structure of the company, could in principle have an impact on the disclosure of information on intangibles. As noted above, research on information requirements of

disclosures part of their broader narrative reporting. This is possibly due to disappointing outcomes in Japan where companies tended to view their Intellectual Capital Statements as a venue to disclose a list of their patents and trademarks.

boards in terms of intangibles management is lacking, and so it is not surprising that little is known about the role that boards have played in stimulating external disclosure. Nonetheless, there are few governance variables that are thought to facilitate IA disclosure.

Board independence appears to be a factor positively correlated with enhanced IA disclosure. In one study of UK listed firms, researchers concluded that IA disclosure is positively correlated with a host of corporate governance factors including presence of independent directors and directors' breadth of experience (Li *et al*, 2011). In a sample of biotechnology companies in Australia, White *et al* (2007) found that the level of voluntary IA disclosure was strongly related to board independence and company leverage. A study exploring the same question in the context of European biotechnology firms, also confirmed that the proportion of independent directors is positively related to IA disclosure and that a certain board structure helps to improve the overall readability of reported information (Cerbioni, Parbonetti, 2012). On other board characteristics such as the combination of Chair and CEO posts, evidence appears inconsistent.

Companies with concentrated ownership structure are generally found to be less likely to provide extensive intangibles disclosure. This could be explained by the fact that companies with such ownership structures are less responsive to investors' information needs since dominant shareholders have regular access to information (Li at al, 2008). A review of practices by listed firms in Singapore found that firms with concentrated ownership and those with high level of executive director ownership were less likely to voluntarily disclose information; on the other hand, state-owned companies were more likely to do so (Firer, Williams, 2001). Concentrated ownership by professional investors appears to have a similar impact. One study of Mexican firms over 2005-2007 period found that an increase in institutional investor shareholdings had a negative impact on IA disclosure (Hidalgo, *et al*, 2010).

PART III. USES OF INTANGIBLES REPORTING

External disclosure of information on intangibles is useful only insofar as it is understood by market participants. While much analysis has focused on the disclosure frameworks and practices, less is understood about the use of IA information by analysts (Abhayawansa, Gurthie, 2010). Evidence indicates that financial analysts are increasingly interested in and understand intangibles (Lev and Amir, 2003; Ousama, Fatima and Majdi, 2011).

One approach undertaken by researchers has been to look at analyst reports to see if IA disclosures are used as a justification in support of buy or sell recommendations (e.g. Arvidsoon, 2003; Garcia-Meca and Martinez, 2007). From a review of literature taking this approach, it can be concluded that analysts do make use of IA disclosures, particularly for high growth companies, but that some information communicated by companies as part of their value creation story is not incorporated. Interviews and surveys of analysts, whether specific to one market or general across several markets, arrive to broadly the same conclusions.

Unsurprisingly, analysts appear to favour IA information that can be readily and easily integrated in their financial valuation models. For instance, information on cost and revenue synergies arising from business collaboration can be used in earnings and cash flow estimates. On the other hand, IA information that cannot be easily incorporated into company valuations is less frequently referred to in analyst reports. From this, it could be inferred that these indicators are not incorporated in analysts' models and decisions,

even though they could be considered by analysts and other users of financial reporting as useful background to the overall company strategy.

Many market participants feel that IA reporting can positively contribute to the quality of narrative reporting. Indeed, IA information is prevalent among the non-financial reporting items identified by analysts as being useful (Abhayawansa, Gurthie, 2010). In addition, IA disclosure can help analysts answer specific questions about the innovation capacity of companies or their human resource strategy. Indeed, analysts often focus on certain types of IA information that might be relevant to answering their particular questions.

IA information could be useful to users of reporting other than institutional or private shareholders. In this regard, it is important to note that the past few years have seen the emergence of boutique private equity firms and investment banks specialised in investing in firms characterised by high intangible assets. These investors are looking for companies with intangible assets for development and commercialisation purposes, even before start up (Ellis and Jarboe, 2010).⁷ These types of investors have the capacity to make use of more sophisticated IA reporting and are likely to have private channels of obtaining the relevant information and KPIs from companies even before investing in them.

With the exception of professional investors, most other investors are sensitive to the possibility of external verification of IA reporting. Such external verifications are now conducted by a few firms specialising in intangibles management, but this is, for the moment, a small and unregulated industry. Only in very few jurisdictions do auditors have guidelines on how to verify IA statements (i.e. Denmark). In the absence of such guidelines auditors may consider issuing an audit opinion on intangibles as an above average risk.

Another concern is that due to the variety of reporting frameworks, investors might not be able to use reported information for comparisons between companies. The lack of standardisation in the reported information remains a major challenge, especially for less sophisticated investors. That is not to say that IA reporting is not relevant for smaller investors. A recent study from the Association of Chartered Certified Accountants indicated that the description of the company business model and KPIs were of interest to 60% of shareholders surveyed (ACCA, 2011).

Differences in national approaches to narrative reporting raise issues regarding possible standardisation as a means of increasing the relevance of IA reporting to users of financial statements. However, given that companies appear to increasingly rely on alternative channels of communication, this gap maybe indirectly addressed. This, in turn, raises questions about whether the entire debate on IA disclosure focuses on the channels of corporate communication that may not be the main means of relaying information on intangibles.

⁷ Deutsche Bank, for instance, recently announced that it is currently managing 3 IC-focused funds totalling 150 million euros and a number of smaller players blend early stage focus of VCs with the lending competence of banks to target IC intensive companies (IAM, 2010).

PART IV. POLITICAL ECONOMY OF REFORM

The concluding section of this report examines intangibles disclosure from the political economy angle. From the above discussion, it can be concluded that globally, IA reporting practices have not advanced significantly in recent years despite a multitude of available reporting frameworks being available to companies. The adoption of IA reporting globally has been fraught with obstacles related to lacking harmonisation of standards, perceived risks associated with increased disclosure, the costs associated with issuing such disclosure, as well as growing interest in other types of disclosure.

The advancement of IA reporting cannot be divorced from the overall discussion on narrative reporting where intangibles are most often reflected. Interest in better narrative reporting was promoted by the latest financial crisis, which has shaken the public's trust in corporate reporting and has emphasised the importance of non-financial information. A number of recent initiatives and consultations by the European Commission, the International Accounting Standards Board, the International Corporate Governance Network and other bodies have focused on enhancing standards for narrative reporting.

For example, the International Accounting Standards Board (IASB) has issued a Practice Statement Management Commentary in December 2010 that provides a broad framework for the presentation of narrative reporting to accompany the financial statements. It includes forward looking information on corporate and intellectual capital resources with the aim to better communicate non-financial factors relevant to company performance. That being said, prior work by the IASB noted that the current framework places serious limitations on the types of intangible assets that can be recognised on the balance sheet.

The International Corporate Governance Network has issued a Statement and Guidance on Non-Financial Reporting in 2008, premised on the idea that it is "the fiduciary duty of institutional investors such as pension fund trustees and managers is to take into account all of the information which assists in identifying and mitigating risk and identifying sources of wealth creation". This Statement and the Guidance are quite general and essentially encourage companies to develop sustainability reports, as well as make use of key performance indicators (KPIs) in order to facilitate comparisons.

In 2011, the European Commission concluded a consultation on non-financial reporting which revealed variety of views. Some stakeholders called for improvements but advocated a voluntary approach, others highlighted the need to clarify the existing EU framework. Overall, the majority of respondents indicated that the reporting regimes differ significantly across member states and that the current framework makes it difficult for shareholders and investors to access disclosure provided by companies (EC, 2011). As a result, the Commission has established an Expert Group on Disclosure of Non-financial information and has commissioned a study to provide further analysis of reporting practices in the EU member states, including on the need for integrated reporting and the demand for non-financial information.

In the search of better narrative reporting, considerable attention over the past few years has focused on the concept of environment, social and governance (ESG) or sustainability reporting. This focus on ESG or sustainability reporting was arguably spurred by both regulatory initiatives and focus of institutional investors. It is clear that the demand for ESG information by institutional investors generally, and socially responsible funds more specifically, has been on the rise.⁸ However, investors' interest in ESG

⁸ Investors in 23 countries examined in one study were shown to access ESG metrics provided by Bloomberg an estimated 34 million times in only two quarters of 2011 (Tonello, 2011); there has been a significant increase in the number of times this data is accessed.

data appears to vary by country and it is currently unclear to what extent this disclosure drives specific investment decisions.

The work of the Global Reporting Initiative (GRI) has recently received significant attention. The GRI is a network-based organisation that has introduced an ESG reporting framework intended for global use by companies irrespective of sector or size. Box 3 provides additional details on the GRI's reporting framework. It bears to mention that the United Nations Principles for Responsible Investment (UNPRI) also seek to incorporate ESG principles into the decision-making processes of institutional investors. As of the time of the preparation of this report, close to one thousand parties, over half of those investment managers, have signed up to these principles.

Box 3. The Global Reporting Initiative Framework

The GRI's reporting framework sets out principles and performance indicators which organisations can use to measure and report their economic, environmental, and social performance (ESG). The framework is based on the *Sustainability Reporting Guidelines*, last updated in March 2011. The current version of the guidelines was extended to cover human rights, community impact and gender issues. The GRI is currently working on the next generation of these guidelines.

It has developed reporting templates for the electric utilities, financial services, mining and minerals, food processing sectors as well as for non-profit organisations. Other sectoral templates are currently under development, as are national annexes. Hundreds of companies all over the world have adopted and are continuing to adopt the GRI methodology. The GRI compiles and features on its website a list of reports which are compliant with its methodology.

The adoption of this framework appears to have been growing significantly. One KPMG survey found that nearly 80% of Fortune 250 companies and about 70% of the largest companies in the 20 largest markets refer to the GRI Guidelines. However, it is notable that GRI itself considers only about 10 companies as being fully compliant with the standard from a universe of about 1800 companies using (GRI, 2010).

The GRI reporting framework and the reporting inspired by it shows a weak link to intangible assets and their value drivers. For instance, the GRI framework includes metrics on human capital, however the vast majority of proposed metrics (e.g. number of employees covered by bargaining agreements, rate of injury, etc.) differ from the metrics which could inform users of corporate reporting of the value drivers in a company. Some of the metrics proposed by the GRI's framework appear only very indirectly linked to the value creation process, instead aiming to inform stakeholders of the various ESG parameters that are measurable and can be easily reported.

The adoption of IA disclosure frameworks has to be also viewed in the context of the discussions on integrated reporting, which is a model seeking to link and consolidate ESG and sustainability reporting with financial reporting. On the most general level, an integrated report is a single document which contains measures of financial and non-financial performance and the relationships between them. Beyond this basic definition, there is currently no consensus on what integrated reporting stands for, with the result that there are significant differences in the outcomes sought by those organisations promoting this reporting concept.

In August 2010, the GRI and the Accounting for Sustainability Project (A4S) announced the formation of the International Integrated Reporting Committee (IIRC). The Accounting for Sustainability Project promotes better disclosure outcomes through connected reporting which seeks to provide a forward looking perspective on actions to manage risks and opportunities related to sustainability issues. The IIRC brings together representatives of the corporate, accounting, securities, and regulatory bodies and aims to create a globally-accepted integrated reporting framework which brings together financial, environmental, social, and governance information in a standardised format. The Secretariat of the IIRC is primarily supported by A4S, the GRI and the International Federation of Accountants and receives additional assistance from a number of other organisations.

The first key step taken by the IIRC was the release of its discussion paper on integrated reporting in 2011. The IIRC is currently refining this document which will present its reporting framework, based on global consultations. The GRI's Guidelines are expected to shape the ESG content for the integrated reporting architecture developed by the IIRC. The IIRC has invited companies to apply to its pilot programme a few dozen companies have volunteered so far. As a next step, the IIRC intends to liaise with regulators in order to seek a high level agreement on the new standard, possibly in the form of a G20 endorsement.

Inspired by this and other efforts, some jurisdictions have begun promoting ESG/sustainability reporting specifically or integrated reporting more generally and a few have even issued national frameworks. For instance, the Integrated Reporting Committee of South Africa has released a Framework for Integrated Reporting in January 2011; as of July 2010 companies listed on the Johannesburg Stock Exchange are required to produce an integrated report. South Africa is for the moment the only jurisdiction to have explicitly adopted an integrated reporting framework based on the IIRC's model, however other countries now require better disclosure of ESG and sustainability policies by companies.

For example, the Danish Commerce and Companies Agency has since 2009 required the country's largest companies, state-owned enterprises, and institutional investors to state in their annual reports whether they have corporate responsibility policies and how they implement them. The Swedish government announced in 2007 that all state-owned companies must produce sustainability reports in accordance with the GRI Guidelines. In some jurisdictions, such as for example in the UK, companies are required to include KPIs reflecting critical success factors in the Enhanced Business Review.

The debate regarding the adoption of integrated reporting is ongoing without, for the moment, a consensus among policymakers, accountants and other experts. On the one end of the spectrum, there are those who argue that all listed companies should be encouraged to adopt integrated reporting practices within the next few years. On the other end of the spectrum, there are those who consider that integrated reporting frameworks are insufficiently developed in order to provide a useful reporting model for companies and that more often than not, instead of a truly integrated report, companies produce a report which adds on unconnected layers of extra-financial information.

Since OECD's 2006 report on *Intellectual Capital and Value Creation*, pressure from investors for public disclosure of intangibles appears to be low – at least in listed companies – in part to due to shifting focus on other disclosure deficiencies highlighted by the financial crisis, in part owing to emerging interest in ESG and sustainability reporting. This begs the question whether the interest in ESG, sustainability or integrated reporting have acted to advance the state of IA reporting. In principle, some overlap between IA and ESG reporting is plausible and indeed research confirms the presence of IA disclosures in ESG reporting. For instance, Cordazzo (2005) looked at whether IA information can be found in ESG reports and noted a significant overlap of data.

A study of IA disclosures in sustainability reports in Portuguese firms found that disclosure on intangibles is more likely in sustainability reports of firms that have a higher level of application of the GRI framework and in listed companies (Oliveira and Rodriguez, 2010). Another study of Italian listed companies found increasing presence of IA information in CSR reports of companies (Passetti *et al*, 2010). Despite this growing interest in potential overlap between IA and ESG/sustainability reporting, the jury is still out on this issue. The extent of possible integration between IA and CSR reporting is questioned by many researchers, some of whom claim that these two are pursuing widely different objectives. For instance, Mouritsen (2011) suggests that IA reporting is meant to describe value creation, whereas CSR reporting aims to explain value distribution.

Discussions about the possible integration of IA disclosure in the integrated reporting generally and in the IIRC framework specifically have not advanced far. The IA disclosure debate has focused on the development of models that can capture how intangible assets contribute to the value creation process, whereas the integrated reporting agenda has focused primarily on linking the various components of financial and non-financial reporting. Linking ESG reporting with financial reporting is proving to be challenging enough, and linking IA disclosures with financial reporting adds an additional level of complexity.

One of the most important challenges to advancing the IA disclosure agenda is standardisation and comparability of reported information. The EFFAS Commission on Intellectual Capital (2008) noted that standardisation and reliability are vital in developing KPIs that are useful for the financial community. As mentioned earlier, there are dozens of private and some government-supported IA management and disclosure models, with different conceptions of intangibles and desired reporting outcomes. The variety of frameworks promoting ESG or sustainability disclosure frameworks add to the choice of reporting models but also to the confusion for companies about the relative value of adopting one of these.

Finally, it is difficult to address the political economy of intangibles reform in the vacuum from the ongoing review and revisions of accounting frameworks. Insofar as the current accounting norms do not allow the recognition of most types of intangibles, all efforts to promote IA disclosure continue to be focused on narrative reporting. Going forward, the renewed interest in extra-financial reporting provides an opportunity to embed the IA disclosure agenda in this debate. The following section outlines possible policy options to encourage companies to better report on their intangibles and to allow for better comparability and consistency of reported information.

PART V. POLICY OPTIONS

For all of the reasons enumerated above, reporting on intangibles remains controversial and relatively slow to develop. Most initiatives to support better intangibles disclosure have so far been driven by private sector or professional associations. So far, few governments have chosen to establish national guidelines, leaving IA reporting subject to market demand, the perceived need of companies' to provide it, and the availability of internal resources. This can be attributed to policymakers' view that IA disclosure is best left to market dynamics and investor demand, as well as to the complexities of regulating or even providing recommendations on IA disclosure, considering the industry- and company-specific nature of intangibles.

Going forward, the fundamental question is what can be done to further stimulate better corporate disclosure on intangible capital. One obvious policy option would be to leave the nature and scope of IA disclosure entirely up to companies and the development of disclosure frameworks to private/academic initiatives. In most jurisdictions, this is indeed what has been happening so far.

In principle, policy makers could support IA disclosure by establishing voluntary recommendations and guidelines or backing existing private sector initiatives. Some evidence of market participants' support for the imposition of voluntary IA disclosure guidelines exists.⁹ There is however, no support for making

⁹ The need to introduce national level frameworks has been supported by some studies of IA disclosure (e.g. Sujan and Abeysekera, 2007).

such guidelines anything more than voluntary. For instance, in Denmark, where national IA disclosure guidelines were introduced in 2002, a survey of about one thousand local companies found that companies were interested in IA reporting but did not wish to have it as a mandatory national or EU guideline because they saw KPIs as being unique to their firm (Mouritsen, 2011).

Another avenue available to policymakers is to put in place supporting mechanisms to facilitate IA reporting. Such measures could include, but are not limited to, support to young enterprises by coaching them on how data collection and reporting frameworks could be put into place. Public support for academic initiatives that promote IA reporting through pilot projects might also have a positive impact. For instance, in Spain, the Ministry of Science and Innovation is currently supporting a project with the BBVA (a financial institution) and a number of venture capital companies looking at how to promote IA reporting in companies (Sanchez, 2011).

Policy makers could also consider measures to encourage the use of intangibles as collateral (Athena Alliance, 2009). Another example of a supporting policy that could potentially stimulate IA disclosure is the introduction of frameworks for auditors to review disclosure. Denmark is unique in that its Accounting Law requires companies with significant intangible assets to report them and provides guidelines to auditors regarding review of intangibles. In connection with these, policymakers could also pronounce themselves on the preferable format of disclosure (e.g. IC statement, integrated in narrative reporting, consolidated with ESG reporting).

Another area where policymakers could potentially have an impact is in engaging in global coordination to address this complex policy issue. So far, better coordination has been achieved in the area of integrated reporting, where the IIRC has played an instrumental role. WICI has attempted to play the same coordination role with respect to the IA disclosure agenda, but so far, does not work directly with policymakers. No other body with a global reach has emerged so far to play this role. The Committee might consider how better coordination in this area might be achieved.

ANNEX I. MATERIALS PROVIDED TO THE MINISTERIAL MEETING

Key messages

Despite the availability of multiple frameworks for reporting on KBC, such as those developed by the World Intellectual Capital Initiative and by analysts, company practices in this area have not evolved significantly in recent years. This is due in part to the emergence of other reporting concepts, such as environmental, social and governance (ESG) and sustainability reporting. As a result, corporate reporting has grown in complexity and length, limiting its usefulness to end users.

Most of existing guidelines on disclosure of intangibles have been created by private sector or academic initiatives. Few OECD governments have introduced guidelines on how KBC should be reported. This leaves disclosure subject to market demand and the perceived need and ability of companies to provide it.

The result is that reporting by companies follows different reporting frameworks, limiting its comparability and consistency. Listed companies face particular challenges since they often have concerns about releasing sensitive information externally.

Although complete harmonisation in standards is neither feasible nor necessarily beneficial, policymakers can have an impact by engaging in global policy coordination. For instance, promotion of sectoral standards or indicators to enhance the comparability and consistency of reporting might be useful to help companies better communicate their value to investors and analysts. Additional measures could include support to young companies on the implementation of data management and reporting frameworks. Further deliberations in the Corporate Governance Committee on measures to facilitate intangibles disclosure are pending.

Summary of the report

It is widely accepted that there has been a global shift towards value creation based on intangible assets (IA) and that this has had significant implications for the management of such assets as well as on internal and external reporting. The OECD Corporate Governance Committee has already examined issues related to corporate reporting of intangible assets with the publication of the report *Intellectual Assets and Value Creation* in 2006, followed by an analysis of the situation of small caps in *Intellectual Assets and Corporate Reporting: the Situation of Small Caps* in 2007.

These earlier reports as well as current research point to a growing consensus among practitioners and policymakers that better reflection of intangibles in corporate reporting is required to improve the functioning of capital markets and private finance. Much academic research has focused on trying to establish the value of improved IA management and reporting for company valuations and access to credit. In doing so, academics have tried to address causation concerns in order to establish that better management and reporting of IA explains higher company valuations and improved access to credit.

Despite an active interest in promoting IA reporting, evidence of progress appears lacking. Estimates of adoption of IA disclosure frameworks by companies are not readily available, but existing data do not seem to demonstrate widespread adoption, although practices vary by country. This is indeed the central

issue that this latest report of the Committee, contributing to the overall project *New Sources of Growth: Intangible Assets* attempts to explore by examining the entire chain of management of IA, from collection of data and its management, to reporting and use by investors and analysts of IA information.

While much research attempting to link better intangibles management and reporting to financial performance has been carried out, evidence regarding executives' perception of the value of these activities is scarce. To date, few surveys of executives and boards aiming to understand their information needs and interests have been conducted. Better understanding of whether measurement and management of intangible assets is perceived as being beneficial by executives and management, and for what purposes, is crucial to grasping how intangible assets are treated within the firm.

Company managers, especially of companies characterised by intensive use of intangible assets, understand the imperative of carefully managing these resources. However, companies wishing to set up processes for IA management and reporting require dedicated human resources and often, external support. Such support is offered by consulting companies, business and professional associations and boutique firms specialising in intangibles. Private equity or other professional investors may provide targeted support insofar as they require the companies they invest in to establish IA management mechanisms and report on specific key performance indicators (KPIs).

The ultimate motivation of companies to introduce IA data collection and management tools vary depending on the maturity of the company, the availability of resources and other factors. It is important to note that corporate efforts to collect IA information are not primarily driven by executives' interest to report externally. On the contrary, interviews with industry participants highlight that many companies, especially young and technology-intensive ones, collect data or information strictly with the view to improve their management of such assets. Indeed, companies are rarely obliged to report on their IA, barring specific circumstances such as bankruptcy or re-organisation.

Perhaps the primary motivation for companies to disclose IA information externally is to bridge the information gap created by the inability of the current accounting frameworks to communicate the value of intangibles. Industry differences, ownership, and company size are often referred to as factors explaining the scope and sometimes even the channels of disclosure. However, it is difficult to draw generalisations regarding the importance of these variables since most studies on IA disclosure focus on one specific jurisdiction, rendering international comparisons difficult.

The methodologies for measurement and reporting on intangible assets are abundant. The evolution of reporting frameworks to accommodate IA disclosure began in the 1990s and was primarily driven by private sector interest and academic research. Most frameworks developed to date favour a qualitative approach where IA is reported in a narrative format – either in the form of an intellectual capital statement or interspersed in extra-financial reporting – to complement financial reporting. Few OECD member countries have introduced recommendations to guide reporting on intangibles (e.g. Japan, Germany, Denmark). In addition, guidelines of a more international nature have been developed by the World Intellectual Capital Initiative (WICI), the European Commission and the European Federation of the European Analysts Societies, providing companies with alternative reporting frameworks.

While it is often assumed that companies report on their IA in the annual report, this assumption needs to be reconsidered. The usefulness of the annual report in disclosing new, previously undisclosed information has been questioned. Research confirms that much IA information gets communicated in private meetings between companies and investors, where private equity and institutional investors acquire information enabling them to make better investment decisions. Road shows and bilateral meetings also enable companies to better elucidate the link between their value drivers and strategy and fill important

information gaps. That said, listed companies in most countries cannot disclose material information to some market participants without disclosing it to the broader market.

Disclosure of information on intangibles is useful only insofar as it is understood by market participants. Analysts appear to favour information that can be readily integrated in their financial valuation models. For instance, information on cost and revenue synergies arising from business collaboration can be used in earnings and cash flow estimates and hence is appreciated by analysts. This conclusion is reflected in studies which review analysts' reports to see whether they use IA information for their buy or sell recommendations and which confirm the value of IA information to analysts' work.

IA reporting can positively contribute to the quality of narrative reporting and can be useful to a wide range of users, from institutional to private investors. The past few years have seen the emergence of boutique private equity firms and investment banks specialised in investing in companies characterised by intensive use of intangible assets; these actors are particularly interested in better disclosure practices. Generally speaking, investors appear to be sensitive to the possibility of external verification of IA reporting, considering that information is provided by companies voluntarily. However, most jurisdictions do not have guidelines for auditors on how to verify the reported information and auditors may perceive a high risk in doing so.

The adoption of IA reporting globally has been fraught with obstacles. These include a lack of harmonisation of reporting standards, legal and regulatory risks associated with increased disclosure to companies and auditors, the cost of disclosure to companies, as well as a growing interest in other types of reporting in the investor community. Recent years have seen expectations placed on companies to produce better environmental, social and governance reporting as well as sustainability reporting. Companies have also been expected to integrate these in a meaningful way. There is currently no consensus on how better IA reporting can be reconciled with these various competing objectives and incorporated into an integrated report.

Discussions on the inclusion of IA disclosure in the integrated reporting generally and in the International Integrated Reporting Committee's (IIRC) framework specifically have not advanced far. The IA disclosure debate has focused on the development of models that can capture how intangible assets contribute to the value creation process, whereas the integrated reporting agenda has focused primarily on linking the various components of financial and non-financial reporting. Linking ESG and sustainability reporting with financial reporting is proving to be challenging enough; adding IA disclosure creates an additional level of complexity.

Going forward, the fundamental question is what policymakers can do to further stimulate IA disclosure. So far, few governments in OECD member countries have introduced guidelines on how IA should be reported, leaving disclosure subject to market demand, the perceived need of companies' to provide it, and the availability of resources to do so. Governments could support IA disclosure by establishing voluntary disclosure recommendations to guide companies towards a single national standard, enhancing the comparability of reporting and hence its usefulness, as well as reducing the perceived risks associated with public disclosure.

Governments can also put in place supporting mechanisms to facilitate reporting on intangibles. Such measures could include, but are not limited to, support to young companies by coaching them on implementation of data management and reporting frameworks. Another example of a policy that could potentially stimulate reporting on intangibles is the introduction of frameworks for auditors to provide more assurance around extra-financial disclosure, including on intangibles. Finally, policymakers can have an impact by engaging in global coordination to address this complex policy issue. While complete

harmonisation of disclosure standards is neither feasible nor desirable, promotion of sectoral indicators to enhance the comparability of reporting might be useful.

ANNEX II. METHODS OF MEASURING INTANGIBLES

Name	Year	Author	Description of Measure
ICU Report	2009	Sanchez 2009	ICU is a result of an EU-funded project to design an IC report specifically for universities. It contains three parts: (1) Vision of the institution, (2) Summary of intangible resources and activities, (3) System of indicators.
EVVICAE™	2008	McCutcheon (2008)	Developed by the Intellectual Assets Centre in Scotland as a web-based EVVICAE toolkit based on the work of Patrick H. Sullivan (1995/2000).
Regional Intellectual Capital Index (RICI)	2008	Schiuma, Lerro, Carlucci (2008)	Uses the concept of the Knoware Tree with four perspectives: (hardware, netware, wetware, software) to create a set of indicators for regions.
Dynamic monetary model	2007	Milost (2007)	The evaluation of employees is done with analogy from to the evaluation of tangible fixed assets. The value of an employee is the sum of the employee's purchase value and the value of investments in an employee, less the value adjustment of an employee.
IAbM	2004	Japanese Ministry of Economy, Trade and Industry.	Intellectual asset-based management (IAbM) is a guideline for IC reporting introduced by the Japanese Ministry of Economy, Trade and Industry. An IAbM report should contain: (1) Management philosophy. (2) Past to present report. (3) Present to future. (4) Intellectual-asset indicators. The design of indicators largely follows the MERITUM guidelines.
SICAP	2004	EU	An EU funded project to develop a general IC model specially designed for public administrations and a technological platform to facilitate efficient management of the public services. The model structure identifies three main components of intellectual capital: public human capital, public structural capital and public relational capital.
National Intellectual Capital Index	2004	Bontis (2004)	A modified version of the Skandia Navigator for nations: National Wealth is comprised by Financial Wealth and Intellectual Capital (Human Capital + Structural Capital).
Topplinjen/ Business IQ	2004	Sandvik (2004)	A combination of four indices; Identity Index, Human Capital Index, Knowledge Capital Index, Reputation Index. Developed in Norway by consulting firm Humankapitalgruppen.

Public sector IC	2003	Bossi (2003)	An IC model for public sector, which builds on Garcia (2001) and adds two perspectives to the traditional three of particular importance for public administration: transparency and quality. It also identifies negative elements, which generate intellectual liability. The concept of intellectual liability represents the space between ideal management and real management, one of the duties a public entity must fulfil for society.
Danish guidelines	2003	Mouritzen, Bukh & al. (2003)	A recommendation by government-sponsored research project for how Danish firms should report their intangibles publicly. Intellectual capital statements consist of 1) a knowledge narrative, 2) a set of management challenges, 3) a number of initiatives and 4) relevant indicators.
IC-dVAL™	2003	Bonfour (2003)	"Dynamic Valuation of Intellectual Capital". Indicators from four dimensions of competitiveness are computed: Resources & Competencies, Processes, Outputs and Intangible Assets (Structural Capital and Human Capital indices).
Intellectus model	2002	Sanchez-Canizares (2007)	Intellectus Knowledge Forum of Central Investigation on the Society of Knowledge. The model is structured into 7 components, each with elements and variables. Structural capital is divided in organizational capital and technological capital. Relational capital is divided in business capital and social capital.
FiMIAM	2002	Rodov & Leliaert (2002)	Assesses monetary values of IC components through a combination both tangible and Intangible assets measurement. The method seeks to link the IC value to market valuation over and above book value.
IC Rating™	2002	Edvinsson (2002)	An extension of the Skandia Navigator framework incorporating ideas from the Intangible Assets Monitor; rating efficiency, renewal and risk.
Value Chain Scoreboard™	2002	Lev B. (2002)	A matrix of non-financial indicators arranged in three categories according to the cycle of development: Discovery/Learning, Implementation, Commercialisation.
Meritum guidelines	2002	Meritum Guidelines (2002)	An EU-sponsored research project, which yielded a framework for management and disclosure of Intangible Assets in 3 steps: 1) define strategic objectives, 2) identify the intangible resources, 3) actions to develop intangible resources. Three classes of intangibles: Human Capital, Structural Capital and Relationship Capital.
EFQM	2001	Caba & Sierra (2001)	An IC measuring model for public sector based on the European Foundation Quality Management Model (EFQM). It integrates the elements from the EFQM model in three blocks which compose intellectual capital: human capital, structural capital and relational capital.
Intangible assets statement	2001	Garcia (2001)	An IC measuring model for public sector based on the IAM with Indicators of: growth/renovation, efficiency and stability.

Knowledge Audit Cycle	2001	Schiama & Marr (2001)	A method for assessing six knowledge dimensions of an organisation's capabilities in four steps. 1) Define key knowledge assets. 2) Identify key knowledge processes. 3) Plan actions on knowledge processes. 4) Implement and monitor improvement, then return to 1). Described in book (2002).
Value Creation Index (VCI)	2000	Baum, Ittner, Larcker, Low, Siesfeld, and Malone (2000)	Developed by Wharton Business School, together with Cap Gemini Ernst & Young Center for Business Innovation and Forbes. They estimate the importance of different nonfinancial metrics in explaining the market value of companies. Different factors for different industries.
The Value Explorer™	2000	Andriessen & Tiessen (2000)	Accounting methodology proposed by KMPG for calculating and allocating value to 5 types of intangibles: (1) Assets and endowments, (2) Skills & tacit knowledge, (3) Collective values and norms, (4) Technology and explicit knowledge, (5) Primary and management processes. Described in Journal of IC 2000.
Intellectual Asset Valuation	2000	Sullivan (2000)	Methodology for assessing the value of Intellectual Property.
Total Value Creation, TVC™	2000	Anderson & McLean (2000)	A project initiated by the Canadian Institute of Chartered Accountants. TVC uses discounted projected cash-flows to re-examine how events affect planned activities.
Knowledge Capital Earnings	1999	Lev (1999)	Knowledge Capital Earnings are calculated as the portion of normalised earnings (3 years industry average and consensus analyst future estimates) over and above earnings attributable to book assets. Earnings then used to capitalise Knowledge Capital.
Inclusive Valuation Methodology (IVM)	1998	McPherson (1998)	Uses hierarchies of weighted indicators that are combined, and focuses on relative rather than absolute values. Combined Value Added = Monetary Value Added combined with Intangible Value Added.
Accounting for the Future (AFTF)	1998	Nash H. (1998)	A system of projected discounted cash-flows. The difference between AFTF value at the end and the beginning of the period is the value added during the period.
Investor assigned market value (IAMV™)	1998	Standfield (1998)	Takes the Company's True Value to be its stock market value and divides it in Tangible Capital + (Realised IC + IC Erosion + SCA (Sustainable Competitive Advantage).
Calculated Intangible Value	1997	Stewart (1997)	The value of intellectual capital is considered to be the difference between the firm's stock market value and the company's book value. The method is based on the assumption that a company's premium earnings, i.e. the earnings greater than those of an average company within the industry, result from the company's IC.
Economic Value Added (EVA™)	1997	Stern & Stewart 1997	Calculated by adjusting the firm's disclosed profit with charges related to intangibles. Changes in EVA provide an indication of whether the firm's intellectual capital is productive or not. EVA is the property of the consulting firm Sternstewart and one of the most common methods.

Value Added Intellectual Coefficient (VAIC™)	1997	Pulic (1997)	An equation that measures how much and how efficiently intellectual capital and capital employed create value based on the relationship to three major components: (1) capital employed; (2) human capital; and (3) structural capital.
IC-Index™	1997	Roos, Roos, Dragonetti & Edvinsson (1997)	Consolidates all individual indicators representing intellectual properties and components into a single index. Changes in the index are then related to changes in the firm's market valuation.
Technology Broker	1996	Brooking (1996)	Value of intellectual capital of a firm is assessed based on diagnostic analysis of a firm's response to twenty questions covering four major components of intellectual capital: Human-centred Assets, Intellectual Property Assets, Market Assets, and Infrastructure Assets.
Citation- Weighted Patents	1996	Dow Chemical (1996)	A technology factor is calculated based on the patents developed by a firm. Intellectual capital and its performance is measured based on the impact of research development efforts on a series of indices, such as number of patents and cost of patents to sales turnover, that describe the firm's patents. The approach was developed by Dow Chemical and is described by Bontis (2001).
Holistic Accounts	1995	Rambøll Group	Rambøll is a Danish consulting group, which since 1995 reports according to its own 'Holistic Accounting' report. It is based on the EFQM Business Excellence model. Describes nine key areas with indicators: Values and management, Strategic processes, Human Resources, Structural Resources, Consultancy, Customer Results, Employee Results, Society Results and Financial Results.
Skandia Navigator™	1994	Edvinsson and Malone (1997)	Intellectual capital is measured through the analysis of up to 164 metric measures (91 intellectually based and 73 traditional metrics) that cover five components: (1) financial; (2) customer; (3) process; (4) renewal and development; and (5) human. Skandia insurance company brought it to fame, but Skandia no longer produces the report.
Intangible Asset Monitor	1994	Sveiby (1997)	Management selects indicators, based on the strategic objectives of the firm, to measure four aspects of creating value from 3 classes of intangible assets labelled: People's competence, Internal Structure, External Structure. Value Creation modes are: (1) growth (2) renewal; (3) utilisation/efficiency; and (4) risk reduction/stability.
Balanced Score Card	1992	Kaplan and Norton (1992)	A company's performance is measured by indicators covering four major focus perspectives: (1) financial perspective; (2) customer perspective; (3) internal process perspective; and (4) learning perspective. The indicators are based on the strategic objectives of the firm.
HR statement	1990	Ahonen (1998)	A management application of HRCA widespread in Finland. The HR profit and loss account divides personnel related costs into three classes for the human resource costs: renewal costs, development costs, and exhaustion costs. 150 listed Finnish companies prepared an HR statement in 1999.
The Invisible Balance Sheet	1989	Sveiby (ed. 1989) The "Konrad" group	The difference between the stock market value of a firm and its net book value is explained by three interrelated "families" of capital; Human Capital, Organisational Capital and Customer Capital. The three categories first published in this book in Swedish have become a <i>de facto</i> standard.

Source: Reproduced from Sveiby, 2010.

REFERENCES

- Abdolmohammadi, M. J. (2005). "Intellectual Capital Disclosure and Market Capitalization", *Journal of Intellectual Capital*, Vol. 6 (3).
- Abhayasansa, Subhash (2011). "A Methodology for Investigating Intellectual Capital Information in Analyst Reports", *Journal of Intellectual Capital*, Vol. 12, No. 3.
- Abhayasansa, Subhash and James Guthrie (2010). "Intellectual Capital and the Capital Market: A Review and Synthesis", *Journal of Human Resource Costing and Accounting*.
- Aboody, D. and b. Lev (2002). "Information Asymmetry, R&D and Insider Gains", *The Journal of Finance*. December Issue.
- Andriessen, D. (2004). "IC Valuation and Measurement: Classifying the State of Art", *Journal of Intellectual Capital*, Volume 5.
- Arnold, Vicky *et al.* (2011). "Understanding Professional and Non-professional Investors' Information Requirements", Preliminary Working Paper.
- Arvidsson, Susanne (2003). "Demand and Supply of Information on Intangibles". PhD Thesis, Lund University.
- Arvidsson, Susanne (2011). "Disclosure of Non-Financial Information in the Annual Report", *Journal of Intellectual Capital*, Vol. 12, No. 2.
- Association of Chartered Certified Public Accountants (2011). "Predicting an Uncertain Future: Narrative Reporting and Risk Information. An Accountancy Futures Note".
- Association of Public Certified Accountants (2010). "Hitting the Notes, but What's the Tune? An International Survey of CFO's Views on Narrative Reporting".
- Blaug and Lekhi (2010). "Accounting For Intangibles: Financial Reporting and Value Creation in the Knowledge Economy", A Research Report for the Work Foundation's Knowledge Economy Programme.
- Bonson, Cortigo and Escobar (2009). "Towards the Global Adoption of XBRL Using International Financial Reporting Standards", *International Journal of Accounting Information Systems*, Issue 10.
- Bukh P. N, Neilsen P, Gormsen and Mouritsen (2005). Disclosure of Information on Intellectual Capital in Danish IPO Prospectuses. *Accounting, Auditing and Accountability Journal*, Vol. 18(6).
- Bushee, Brian, Michael Jung, and Greg Miller (2011). "Do Investors Benefit from Selective Access to Management?" Working Paper.

- Cerbioni, Fabrizio and Antonio Parbonetti (2012). "Exploring the Effects of Corporate Governance on Intellectual Capital Disclosure: An Analysis of European Biotechnology Firms", Forthcoming in *European Accounting Review*.
- Clarke, Martin (2011). "Intellectual Capital and Firm Performance in Australia", *Journal of Intellectual Capital*, Vol. 12, No. 4.
- Cordazzo, M. (2005). "IC statements vs Environmental and Social Reports: An Empirical Analysis of Their Convergence in the Italian Context", *Journal of Intellectual Capital*, Vol. 6, No. 3.
- Eccles, Robert and George Serafeim (2011). "Leading and Lagging Countries in Contributing to a Sustainable Society." Harvard Business School Working Knowledge.
- Ellis, Ian and Patrick Jarboe (2010). "Intangible Assets in Capital Markets." *Intellectual Assets Management*, May/June issue.
- European Commission (2011b). "Summary Report of the Responses Received to the Public Consultation on Disclosure of Non-Financial Information by Companies", Directorate for the Internal Market and Services.
- European Commission (2011a). Proposal for a Directive of the European Parliament and of the Council on the Annual Financial Statements, Consolidated Financial Statements and Related Reports of Certain Types of Undertakings.
- European Federation of Financial Analysts Societies (2008). "Principles for Effective Communication of Intellectual Capital."
- Firer, Steven and Mitchell Williams (2011). "Association Between the Ownership Structure of Singapore Publicly Traded Firms and Intellectual Capital Disclosures". *Corporate Governance and Intellectual Capital Archive Research Papers*.
- Guthrie, J. Ward, L. and Cuganesan, S. (2008). "Intellectual Capital Reporting Media in an Austrian Industry", *International Journal of Learning and Intellectual Capital*, Vol. 5, No. 2.
- Habib, Laurent (2011). *Measures of the Ministry of Economy and Finance in Favour of Management of Intangible Assets To Support Competitiveness and Innovation of Companies*. Speech to the Conference of the Observatoire de l'Immateriel. 11 October, 2011.
- Hidalgo, Ruth, Emma Garcia-Meca, and Isabel Martinez (2010). "Corporate Governance and Intellectual Capital Disclosure", *Journal of Business Ethics*.
- InCas (2010). European ICS Guideline.
- InCas (2011). Conference call with Stefan Zickgraf, Project Coordinator.
- International Accounting Standards Board (2010). *Practice Statement Management Commentary*.
- International Corporate Governance Network (2008). *Statement and Guidance on Non-Financial Reporting*.
- Institute of Chartered Accountants of Scotland (2010). "Intellectual Capital Reporting: Academic Utopia or Corporate Reality in a Brave New World?" Prepared by Vivien Beattie and Sarah Jane Thomson.

- Ittner, Christopher and Larcker, D. (2003). "Coming Up Short on Non-Financial Performance Measurement", *Harvard Business Review*, Vol. 81, No. 11.
- Ittner, Christopher (2011). "Does Measuring Intangibles for Management Purposes Improve Performance? A Review of the Evidence", *Accounting and Business Research*, Vol. 38, Issue 3.
- Johanson, Ulf (2003). "Why Are Capital Market Actors Ambivalent to Information About Certain Indicators on Intellectual Capital?" *Accounting, Auditing and Accountability Journal*, Vol. 16, No.1.
- Garcia-Meca, E. and I. Martinez (2007). "The Use of Intellectual Capital Information in Investment Decisions: an Empirical Study Using Analyst Reports", *International Journal of Accounting*, Vol. 42(1).
- Kang, Helen (2011). *Reporting Intangible Assets: Voluntary Disclosure Practices of Top Emerging Market Countries*.
- KPMG (2003). *Non-executive directors' survey*.
- Lajili, K. and D. Zéghal (2005). "Labour Cost Voluntary Disclosures and Firm Equity Values: Is Human Capital Information Value-relevant?" *Journal of International Accounting, Auditing and Taxation*, Vol. 41(2).
- Lev, Baruch and Eli Amir (2003). *Do Financial Analysts Get Intangibles?*
- Lev, Baruch and Bharat Sarath (2005). "R&D Reporting Biases and Their Consequences", *Contemporary Accounting Research*, Vol. 22, No.4.
- Ligteringen, Ernst and Arbex Nelmara (2010). "Will Integrated Reporting Make Sustainability Reporting Obsolete?" in *Landscape for Integrated Reporting*, Harvard Business School, Cambridge, Massachusetts.
- Li, Jing, Richard Pike and Roszaini Haniffa (2011). "Intellectual Capital Disclosure and Corporate Governance Structure in UK Firms", *Accounting and Business Research*, Vol. 38, No. 2.
- Mukherjee, Shibashish and Stefano Sambon (2011). "The relevance of Intangibles Disclosure for Market Risk: An Exploratory Study of U.S. Healthcare and Pharmaceutical Industry", *Indian Accounting Review*, Vol. 15, No 1, June 2011.
- Nemetz, Martin (2006). Towards a Model for Creating Intellectual Capital Reports. *Journal of Universal Knowledge Management*. Vol. 1, No 3.
- OECD (2006). *Intellectual Assets and Value Creation: Implications for Corporate Reporting*. [DAF/CA/CG\(2006\)15/FINAL](#).
- OECD (2007). *Intellectual Assets and Corporate Reporting: The Situation of Small Caps*. [DAF/CA/CG\(2007\)9/FINAL](#).
- OECD (2008). *Recent Developments in Intellectual Capital Reporting and Their Policy Implications*. [EDU/WKP\(2008\)4](#).
- OECD (2011). *New Sources of Growth: Intangible Assets. Preliminary Evidence and Policy Issues*. [DSTI/IND\(2011\)2](#).

- Oliveira, Lidia and Rodrigues, Lucia Lima (2010). "Intellectual Capital Reporting in Sustainability Reports", *Journal of Intellectual Capital*, Vol. 11, No. 4.
- Ousama, A, A. Fatima, A. Hafiz Majdi, (2011) "Usefulness of Intellectual Capital Information: Preparers' and Users' Views", *Journal of Intellectual Capital*, Vol. 12 Issue 3.
- Passetti, Emilio & Tenucci, Andrea & Cinquini, Lino & Frey, Marco (2009). *Intellectual Capital Communication: Evidence From Social and Sustainability Reporting*. MPRA Paper 16589, University Library of Munich, Germany.
- Pedrini, M (2007). "Human Capital Convergences in Intellectual Capital and Sustainability Reports". *Journal of Intellectual Capital*, Vol. 8, No.2.
- PriceWaterhouseCoopers (2007). *Corporate Reporting – A Time For Reflection. A Survey of the Fortune 500 Companies' Narrative Reporting*.
- Sanchez (2011). Presentation to the Conference on Intangible Assets, Bercy, November 2011.
- Singh, I and L. J. A Van der Zahn (2007). "Does Intellectual Capital Disclosure Reduce an IPO's Cost of Capital? The Case of Underpricing", *Journal of Intellectual Capital*, Vol. 8(3).
- Singh, Inderpal and J. L. Mitchell Van Der Zahn (2009). "Intellectual Capital Prospectus Disclosure and Post-issue Stock Price Performance", *Journal of Intellectual Capital*, Vol. 10, No. 3.
- Skinner, Douglas (2007). "Accounting for Intangibles – A Critical Review of Policy Recommendations", *Accounting and Business Research*, Vol. 38.
- Solomon, David and Eugene Soltis (2011). "What Are We Meeting For? The Consequences of Private Meetings with Investors". Accessed through Social Science Research Network.
- Steenkamp, Natasja and Varsha Kashyap (2010). "Importance and Contribution of Intangible Assets: SME Managers' Perceptions". *Journal of Intellectual Capital*, Vol. 11, No. 3.
- Striukova, Ludmila, Jeffrey Unerman and James Guthrie (2008). "Corporate Reporting of Intellectual Capital: Evidence from UK Companies". *British Accounting Review*, December 2008, Volume 40, Issue 4.
- Sveiby, Karl Erik (2010). Methods for Measuring Intangible Assets. Online article. Last updated April 27, 2010.
- Tomorrow's Company (2010). *Tomorrow's Corporate Reporting: A Critical System At Risk*.
- Tonello, Matteo (2011). *The Role of the Board in Accelerating the Adoption of Integrated Reporting*. The Conference Board. Adapted from a book chapter in CSR Index.
- Unerman J, J Guthrie and L Striukova (2007). *UK Reporting of Intellectual Capital*, ICAEW Centre for Business Performance, London.
- Vafaei, Alireza, Dennis Taylor and Kamran Ahmed (2011). "The Value Relevance of Intellectual Capital Disclosures", *Journal of Intellectual Capital*, Vol. 12, No. 3.

Wang, Jui-Chi (2008). "Investigating Market Value and Intellectual Capital for S&P 500", *Journal of Intellectual Capital*, Vol. 9, No. 4.

Whiting, Rosalid H. and James Woodcock (2011). "Firm Characteristics and Intellectual Capital Disclosure by Australian Companies", *Journal of Human Resource Costing and Accounting*.

World Intellectual Capital Initiative (2011). *Concept Paper*.