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# Intellectual capital reporting and credit risk analysis

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Abstract:

## **Purpose**

– Aims to increase our understanding of the role of intangibles in credit risk analysis and of the main factors which enable or disable the impact of intellectual capital (IC) reports.

## **Design/methodology/approach**

– Discusses recent findings from the European Union-funded E\*Know-Net project (2001-2003) and reviews other works on the subject. This literature review is complemented with two case studies. The first presents the results of an experimental workshop with 12 credit risk analysts from Banco Santander Central Hispano, a major Spanish bank. The second case study looks at how the European Investment Bank integrates intangibles into its project appraisal process.

## **Findings**

– Provides a comprehensive conceptual framework to analyze the impact of IC reporting in credit risk analysis. Argues that there is a significant gap between the perceived potential impact of IC reports and their real impact in practice, and proposes a classification of the barriers in the market for corporate information

that help explain this apparent paradox. The case studies presented illustrate some of the factors that enable or disable the impact of IC reporting in practice.

#### **Originality/value**

– Increases understanding of the relevance and impact of intangibles and IC reports in the lending process. Draws conclusions for companies, credit institutions and policy makers.

Keywords:

[Intangible assets](#), [Intellectual capital](#), [Credit](#), [Risk analysis](#), [Spain](#)

Type:

Case study

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## **Article**

### **1. Intellectual capital and capital markets**

Section: ▼

It is widely claimed that the existing accounting system rarely recognizes intangible resources and activities despite their growing importance in modern economies ([Lev and Zarowin, 1999](#)). As a result, there would tend to be a bias in financial markets against intangible-intensive investments, such as research and development (R&D), human capital or organizational development. Ultimately, communication gaps between firms and financial institutions on the critical intangibles that drive innovation and business performance result in an inefficient allocation of limited financial resources, curtailing economic growth. The lack of adequate information on intangibles is also seen as one of the major reasons behind increased volatility and information asymmetry in capital markets.

Efforts to alleviate this problem are generally directed towards two complementary directions, which I will call the “capitalization approach” and the “extended reporting approach”. The capitalization approach attempts to relax the conditions that must be met for intangibles to be capitalized, so that they can more easily appear as investments in the balance statement rather than as current expenses. The restrictions to the capitalization of certain intangibles, such as intellectual property or software applications, have slowly been relaxed in recent years and it is expected that this trend will continue in the future. However, many other critical intangibles, such as human capital or brand reputation, will never appear independently in the balance statement because this would imply a violation of the most basic accounting principles and, as discussed by [Cañibano and Sánchez \(2004\)](#), the costs associated with a radical change in the accounting system are generally perceived as too high. Indeed, intangibles that could realistically be capitalized in the future represent a small fraction of the firm's intellectual capital (IC). So the capitalization approach is by no means the final solution: It needs to be complemented with the extended reporting approach.

Given the limitations of traditional financial statements and the risks associated with a radical change of accounting principles, the extended reporting approach aims at developing alternative channels for communicating more and better information on the firm's future strategies and critical intangibles. Moreover, the extended reporting approach attempts to reduce the inefficiencies associated with information asymmetries in financial markets and, thus, favors public over private channels. The most popular public channels for reporting on intangibles are the “management discussion and analysis” section of annual reports; environmental and social reports; and IC reports. IC reports have the advantage of being more open in scope than the rest, and thus could easily integrate them ([European Commission, 2003](#)). For example, environmental and social performance indicators could be included in the “relational capital” section of the IC report, thus eliminating the need to produce two independent reports. This is extremely important given the over-reporting burden perceived by many firms these days.

IC reports complement traditional financial information supplied by firms to financial markets with a wider picture of the firm's strategy and of the critical intangibles driving its future performance. They are not only an efficient communication device, but also a very powerful management tool ([Mouritsen, 2003a](#)). Given the popular premise that “only what can be measured can be managed”, IC reports enhance organizations’ innovative capabilities through a more efficient management and control of the intangible resources and activities that drive innovation and value creation. For all these reasons, IC reports are widely being promoted as the preferred means to overcome the limitations of financial performance measures from different platforms, including the European Commission, the OECD, and governments, academics and business associations from many countries.

The origin of IC reports dates back to the early 1990s, where a variety of models for IC management were developed and disseminated worldwide. The most popular among these pioneering tools are probably the Balanced Scorecard ([Kaplan and Norton, 1996](#)), the Intangible Asset Monitor ([Sveiby, 1997](#)), the Skandia Navigator ([Edvinsson and Malone, 1997](#)) and the Technology Broker ([Brooking, 1996](#)). More recently, in Europe, some publicly-funded initiatives led by academics have aimed, as recommended by [OECD \(1999\)](#), at developing widely accepted guidelines to help companies in the process of developing IC reports, while contributing to a stronger standardization of reporting practices in the longer term. The [MERITUM \(2002\)](#) Guidelines, funded by the European Commission, and the guidelines for IC reporting financed by the [Danish Ministry of Science Technology and Innovation \(2003a\)](#), are two of the most prominent examples of this trend.

### Relevance and impact

We tend to assume that IC reporting results in a better response from capital markets to investments in intangibles, but we might be doing so with insufficient evidence. While it is clear that analysts find information on intangibles relevant, this does not necessarily imply that the information disclosed by firms through IC reports has a final impact in terms of easier access to funds or improved financing conditions.

Findings from the E\*Know-Net project suggest that financial analysts are increasingly interested on information about IC. This proposition was already clear thanks to the

work of [Eccles and Mavrinac \(1995\)](#), [Desai \(2000\)](#) and [Lim and Dallimore \(2002\)](#), among many others. Financial analysts are aware that they cannot base their decisions exclusively on accounting information. While valuing intangibles is indeed a complex and somehow subjective process, it needs to be performed by financial analysts if efficient investment decisions are to be taken. Indeed, [Low and Kalafut \(2002\)](#) estimate that 35 per cent of the investment decision is based on information on intangibles. This has led to a more demanding investment community that requests firms to provide better information on intangibles. The more relevant information is supplied, the more intelligent and rational that the response from financial analysts should be.

With regard to the different market segments, it is in venture capital, private equity and mergers and acquisitions where information on intangibles seems to be more valuable to financial analysts, as suggested by [Low and Kalafut \(2002\)](#) and [Morck et al. \(2003\)](#). There is also sound evidence available on the relevance of information on intangibles in equity valuation ([Botosan, 1997](#); [Richardson and Welker, 2001](#); [Barth et al., 2001](#)). Information on intangibles has also been found to be relevant for loan officers, as will be discussed in Section 2.

Other studies further suggest a negative correlation between intangibles disclosure level and cost of capital ([Cañibano et al., 2000](#); [NFF, 2003](#)). These authors support that the quantity and quality of information on intangibles disclosed by the firm can have a positive impact on its weighted average cost of capital. However, we still lack sufficient evidence supporting the positive impact of IC reports, partly because it is extremely complex to empirically estimate their direct impact on the firm's cost of capital, and partly because this is still an emerging discipline of practice and research. In sum, it is still to be seen whether IC reports are the right approach to address financial analysts' unsatisfied information needs.

The apparent advantages of IC reports are clear. A good IC report allows its reader to measure the extent to which the firm is advancing towards the achievement of its strategic objectives through the development of its critical intangibles. IC reports contribute to unveiling enhanced information on the firm's strategy, on its relationship with clients and suppliers, on its human capital, on its innovative capacity, and on other of the firm's critical intangibles. This kind of information is increasingly being weighted in financial analysts decisions. According to [Cañibano and Sánchez \(2004, p. 5\)](#), in order to improve financial analysts response to knowledge-based ventures, they need “a coherent, agreed, homogeneous, reliable and verifiable set of principles and indicators for intangibles and intellectual capital”. This is precisely what IC reports strive for.

Despite these advantages, several E\*Know-Net members ([Bukh, 2003](#); [Johanson, 2003](#); [Mouritsen, 2003b](#)) have described a paradox by which financial analysts, while demanding more information on intangibles, are somehow ambivalent to IC reports. Indeed, there seems to be a significant gap between the perceived potential impact of IC reports and their real impact in practice. The reason for this gap can be found in a set of barriers in the market for corporate information that reduce the impact of IC reports, as described next.

Barriers

The exchange of corporate information can be conceptualized as a market, where the demand side consists mainly of investors and financial analysts and the supply side comprises firms and other information producers such as rating agencies and financial journalists ([Holland and Johanson, 2003](#)). In this market, there are both supply and demand barriers that reduce the impact of IC reports.

Recent research from E\*Know-Net members across several European countries has contributed to an improved understanding of such barriers. Based on experiences with Swedish financial analysts, [Johanson \(2003\)](#) and [Bjurström \(2003\)](#) identify and interpret the main demand barriers. Chaminade and [Johanson \(2003\)](#) take a closer look at cultural barriers, and suggest that the impact of IC reports could tend to be higher in Northern European countries, such as Sweden, than in Southern European countries, such as Spain. Other E\*Know-Net partners from Denmark ([Mouritsen, 2003b](#); [Bukh, 2003](#)) have also discussed demand and supply barriers, and so has [García-Ayuso \(2003\)](#), from Spain. [Marr et al. \(2003\)](#), from the UK, focus on the drivers of IC disclosure and discuss several supply barriers. Other E\*Know-Net researchers (including countries like Norway and Finland) have also investigated these barriers and have participated in the meetings that were organized throughout the project to discuss ongoing research.

Building on those works, [Figure 1](#) and the lists that follow propose a tentative classification of the most relevant supply and demand barriers at stake. Needless to say, these barriers are often closely connected to each other; this is the reason for the arrow connecting “supply barriers” and “demand barriers” on [Figure 1](#). For instance, analysts’ distrust on the information’s veracity (demand barrier 5) would be reduced if indicators contained on IC reports were audited or verified (supply barrier 5):

1. 1.

*Supply barriers* (i.e. those related to the way in which firms communicate information on intangibles to capital markets):

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*IC reporting as an emerging and voluntary practice.* Many firms are reluctant to publish IC reports because they fear unveiling sensitive information that could harm their competitive position, because of a perceived over-reporting burden or because they consider the cost associated with preparing and publishing IC reports to be too high. While the number of firms that publish IC reports has grown dramatically during the last years, they still represent a small proportion. Therefore, financial analysts do not consider IC reports useful for comparing a firm's IC with its industry standards and deriving relative growth estimates. Financial institutions will thus tend to adopt a “wait and see” approach.

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*Lack of a generally accepted framework for preparing IC reports.* The language, structure and indicators contained in IC reports are very heterogeneous across firms. While full standardization might not be

desirable, there is a need for an agreement on, at least, the general structure, language and a minimal set of indicators. The overwhelming variability of IC reporting approaches creates confusion and is an obstacle to comparisons.

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*The missing link to financials.* Ultimately, what financial analysts are interested in is future performance. Thus, for IC reports to have an impact on the cost of capital, they should help analysts arrive to closer estimates of the firm's future cash flows. IC reports should aim at persuading analysts to increase their cash flow forecasts or reduce the perceived volatility of such estimations. However, IC reports rarely establish adequate connections with cash flow projections. According to [Lev \(2002\)](#) and to [Cañibano and Sánchez \(2004\)](#), this is one of the most determinant barriers and the one whose alleviation should become the priority of the academic community in the coming years.

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*An unclear link with strategy.* [Roos \(2003\)](#) and [Marr et al. \(2003\)](#) argue that IC reports currently published by firms often fail at establishing a clear link between the firm's strategic goals and its intangible resources and activities. The importance of this link is clearly emphasized in the [MERITUM \(2002\)](#) Guidelines.

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*Lack of auditing or verification.* Despite the fact that some firms include an auditors' verification statement in their IC report, the information contained in IC reports is normally not subject to external auditing or verification, which raises doubts on its veracity.

## 2. 2.

*Demand barriers* (i.e. those related to the culture and mentality of financial analysts or to the internal routines by which financial institutions analyze intangibles):

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*Lack of IC-specific internal routines and tools.* Financial institutions rarely integrate comprehensive tools for evaluating IC into their valuation routines. While intangibles are perceived as important, they are generally analyzed in an intuitive, unstructured way.

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*Lack of knowledge.* Some financial analysts fail to understand the impact of intangibles on value creation, partly because they have not been

trained for it and partly because they lack specific tools to analyze intangibles. They are not used to interpreting IC reports.

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*Mentality and over-reliance on numbers.* Analysts consider themselves to be more cynical and rational than the rest of people. They have a preference for numbers over qualitative information, because through numbers they can be rational and control their emotions. Numbers are perceived as more real and objective. In the words of [Johanson \(2003\)](#): “phenomena that are impossible to quantify are viewed as impossible to understand, disturbing or irrelevant”.

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*Over-reliance on historical data.* Financial analysts frequently argue that there is no better indicator of the quality of a firm's IC than its past financial performance. If a firm has consistently produced superior returns, this means its intangible resources and activities are more valuable than those of its competitors. However, in a constantly changing business environment, it is essential to adopt a future perspective when evaluating intangibles.

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*Distrust on information's veracity.* Analysts question the veracity (are the measurements correct?) of indicators provided by firms in IC reports. The fact that the publication of IC reports is voluntary and normally lacks auditing is a major reason for distrust.

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*Validity concerns.* They also question the validity (are the indicators useful to measure what they try to measure?) of indicators provided by firms in IC reports. Frequently, financial analysts criticize that firms would tend to publish only the positive data while hiding the information that could have a negative impact. With the recent crisis in technology stock markets, analysts' distrust of non-financial indicators has grown. They also doubt whether IC reports really drive firms' management strategies or are only external communication tools.

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*Time constraints.* Financial analysts work long hours and under pressure. They have limited time available to make valuations and decisions. In this context, interpreting IC reports and making the links to future financial performance is a very time-consuming process.

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*Preference for private channels.* Financial analysts generally favor private channels over public channels when it comes to evaluating firms' intangibles. In order to evaluate properly firms' strategies and intangible resources, their preferred approach is direct communication with the management team through personal interviews and meetings.

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*Risk avoidance and herd behavior.* The dominant mindset of most analysts is to avoid risk and to follow their group's general practices. The lack of reliable and understandable information on intangibles implies the perception of increased risk. If they follow their employer's standard valuation processes, then they cannot be blamed for providing inaccurate estimates. However, if they rely on qualitative information (or on IC indicators), they risk being penalized by their employers.

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*Self-interest and overconfidence.* Financial institutions are not interested in information on intangibles published by firms through IC reports because they have already developed alternative channels for gathering such kind of information. These alternative channels are seen as a competitive advantage over other market participants, in the sense that they can provide a privileged market position. If public IC information and methods for analyzing IC reports improved, financial institutions fear they could eventually lose that privileged position.

## 2. Intangibles and IC reports in credit risk analysis

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The lending decision is based on an evaluation of the firm's financial position and its future prospects, in a process known as credit risk analysis. More technically speaking, credit risk analysis consists in estimating the probability that a borrower fails to return its credit in accordance to the terms agreed (probability of default) and the expected loss that the bank would incur in case of default (loss given default). The process involves an estimation of the firm's future cash flow and of the value of the assets that could be provided as collateral or security for the credit in the event of default.

Therefore, intangibles have a two-sided impact on a firm's credit risk profile. First, intangibles that appear in the balance statement (such as intellectual property rights) could eventually be used as a collateral or security. Second, given that intangibles are becoming the main drivers of future cash flows, especially in services and knowledge-based industries, they are essential in evaluating the firm's capacity to meet future debt obligations. As I will argue next, this second role is more significant than the collateral value of capitalized intangibles.

For an intangible asset to be accepted as collateral by a bank it needs to be easily identifiable and must maintain its value when disentangled from the firm. However, very few intangible assets meet such criteria, as the value of intangibles tends to be

context-specific. And, even in the rare cases when it is feasible, estimating the market value of an individual intangible asset is a complex process that often requires external assistance from technical experts and thus has cost implications for banks. For these reasons, the value of intangibles as collateral is very limited in practice, as shown by some recent empirical studies that are summarized next. A project financed by the EU Commission and coordinated by [Scientific Generics \(2000\)](#) that investigates how European commercial banks analyze technology-based firms for lending purposes shows that very few accept intangibles as collateral for debts. Within the context of the E\*Know-Net project, a field experiment in Sweden ([Gröjer and Catusus, 2003](#)) also finds that loan officers are reluctant to accept intangibles as assets in the traditional sense (still, these authors suggest that the capitalization of intangibles leads loan officers to be more prone to a mindset that not only looks at financial ratios, but also at value creation). Other studies also conclude that intangibles are rarely accepted as collateral, such as [Bezant and Punt \(1997\)](#). In addition, analysts tend to subtract capitalized intangibles from the balance statement when calculating financial ratios ([FASB, 2002](#)), so as to compensate differences in accounting practices across firms and avoid creative accounting practices.

Thus, in the credit decision context, intangibles are more relevant for assessing the firm's capacity to meet future debt obligations than as collateral for the debt. Specifically, [Hall \(2003\)](#) and [Lev \(2002\)](#) agree that the most valued intangibles by loan officers are “the firm's competitive position within its industry” and “the quality of the management team”. However, these are very ample concepts that, in effect, embrace the totality of intangibles. Because, on the one hand, the firm's competitive position is closely linked to the development of its intangible resources. And, on the other hand, quality of management is evidenced by the way intangibles are managed.

In any case, it is essential to study how financial institutions evaluate competitive positioning and quality of management. In practice, these two factors are often integrated into check-lists that loan officers must fill out as part of their credit risk assessment reports that are the basis for the final lending decision. However, research from the EU-funded PRISM Project ([Eustace, 2003](#)) shows that this is generally done in a subjective and intuitive way, and with neither a common language nor an explicit measurement framework. From my conversations with Spanish credit risk analysts, I have reached the same conclusion.

In this context, IC reports could be relevant because they facilitate the valuation of the firm's relative competitiveness and should provide a good image on the firm's management team. However, financial analysts lack tools and knowledge for analyzing IC reports. Possibly, the central issue is whether banks have sufficient incentives to improve their internal processes for analyzing borrowers' intangibles by implementing routines for interpreting IC reports and establishing the connections with future business performance. The discussion of the barriers that limit the impact of IC reports presented in the previous section provides a good insight into this query.

Another major credit-specific barrier that should be considered are the Basel II regulations, which aim at introducing by 2007 new rules for determining required prudential capital to be held by credit institutions. These regulations have been developed by the Basel Committee on Banking Supervision, a forum of leading bank regulators, the world's major banks and their various trade associations. Theoretically,

they would reward good and transparent risk management. In practice, complying with complex regulations calls for implementing new, sophisticated information systems for credit risk management, which represents a huge burden for banks and might distract their attention from the need to integrate intangibles better into their credit risk analysis routines. As suggested by [Shirreff \(2003, p. 130\)](#), these regulations might result in a financial sector “growing less efficient at pushing capital through the economy”, which “does not bode well for creativity and entrepreneurial flair”.

The rest of this article presents two case studies that aim at better understanding the role of intangibles and IC reports in credit risk analysis. These case studies illustrate some of the factors that enable or disable the impact of IC reporting on access to funds and credit conditions.

#### Case study 1. An experiment with credit risk analysts from BSCH

*Methodology.* In order to explore further the impact of IC reports in the lending process we organized a working session with 12 experienced credit risk analysts from Banco Santander Central Hispano (BSCH). BSCH ranks first in Spain's banking industry in market share and stock market capitalization. These analysts have an average experience in credit risk analysis of 5.6 years. Six of them are women. Ten work in BSCH offices across five different Spanish provinces and the remaining two work for the bank's subsidiary in Portugal. Three of them are regional directors for the credit risk analysis division of the bank.

The objective of this workshop was to shed new light on the following four questions:

1. 1.

Do credit risk analysts find IC reports useful in their daily work?

2. 2.

What do they like or dislike about IC reports (specifically those prepared following the MERITUM Guidelines)?

3. 3.

Can IC reports have a real impact in credit conditions?

4. 4.

What are the most significant barriers that limit the impact of IC reports in the credit risk analysis context?

The meeting was organized in the Bank's premises in Madrid on June 16, 2003. It was structured around the following three phases:

1. 1.

*Phase 1.* Analysts were asked to evaluate a fictitious firm based on its annual report and a document presenting the investment project for which the credit was requested. The fictitious firm is from the automotive components industry, and the annual report (consisting of balance statement, income statement, management discussion and analysis and auditors report) was prepared following standard reporting practices of its industry in Spain. The investment project described was a new R&D center located in Madrid. The credit amount demanded was €10 million (this quantity was chosen so that the decision of granting the credit was not so obvious in light of the firm's financial figures). Analysts were asked to decide individually on the credit conditions they would offer. The experiment was conducted under a number of assumptions that attempted to mimic real-life practice. For instance, analysts were not informed initially of the purpose of the experiment and were asked to assume that their supervisor had already met personally with the client's management team and had a positive impression.

2. 2.

*Phase 2.* After an open discussion on analysts' unsatisfied information needs, we handed in an IC report of the firm under analysis. They read it in detail and were asked to answer a set of questions individually concerning its usefulness and its impact on the credit decision. The IC report was based on a study of the strategic challenges of Spain's automotive components industry, and was produced following the MERITUM Guidelines. After this individual assessment, an open discussion on IC reports and its limitations took place.

3. 3.

*Phase 3.* A Likert-type questionnaire was distributed to all participants to validate the conclusions from the open discussions better.

*Results.* The whole sample of analysts "agree" or "strongly agree" that they generally miss more information on their clients' intangibles. In the words of one of the participants:

[...] qualitative information on the firm has become one of the biggest issues for granting credits, specially for medium and long term operations. The most valued information is that related to the firm's competitive position within its industry.

Other non-financial information that these analysts found most relevant was:

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information on the firm's clients (100 percent of responses);
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information on the firm's managers (67 percent);
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information on the firm's competitors (67 percent); and

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information on the firm's suppliers (42 percent).

They also claimed badly to need, in general, more information on the firm's future perspectives.

In this context, they consider IC reports to be very useful. Indeed, these analysts said that receiving an IC report facilitates their work. They like the way the information is structured and explained, and they also like the terminology used. "It's great to receive all this information grouped together in one only document with a coherent structure", said one of the analysts.

One of the main strengths of IC reports, according to all participants, is that it helps better prepare the personal interviews with the management team and focus on the key issues. IC reports are useful, according to these analysts, because they provide a comprehensive perspective of the firm's culture, of its business strategy and of its relationships with customers and suppliers.

It was clear that these analysts liked the IC report and that they found it useful for performing their assessment of the firm's credit risk. But, does the publication of IC reports have a real impact on credit conditions? Are analysts more willing to grant credit and offer better conditions to firms that publish such reports? This was not so evident:

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Initially, 66.6 percent of analysts said they would grant credit to the firm based on the analysis of its annual report and the investment project description. From this group, 12.5 percent would offer the firm preferential interest rate conditions and the rest would offer standard conditions.

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After reading the IC report, 25 percent of the total sample said they might reconsider their initial analysis and offer better conditions. From the 33.3 percent that decided not to grant the credit initially (i.e., four analysts), half of them said they would reconsider it after reading the IC report, and eventually they would change their mind. However, this would depend on the outcome of their personal meetings with the management team.

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When responding to the final questionnaire, only two analysts (16.7 percent) said the publication of an IC report could eventually have an impact on credit conditions (either amount granted or interest rate offered).

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One of the analysts said: “while IC reports are useful, I don't think they can have a direct impact on credit conditions. If a firm does not publish it, then similar information would be gathered through other channels such as personal interviews with the management team”.

So, under some circumstances, this experiment shows that firms that publish IC reports might benefit from better access to funds and credit conditions. However, the most general outcome is that IC reports, while being useful in the credit risk analysis process, do not have a final impact on credit conditions.

Analysts agree on the fact that there is a gap between the potential impact of IC reports and their real impact today, due to several demand and supply barriers. Among existing barriers, the one that they find most significant is that very few firms publish IC reports (supply barrier 1). A total of 83.3 percent of them either agree or strongly agree when asked whether IC reports would have a stronger impact if they became a wider practice among firms. According to these analysts, the possibility of comparisons among firms within an industry would clearly increase IC reports' impact.

The other most important barriers, according to this sample, are time constraints (demand barrier 7) and the fact that they have no tools or routines at their disposal for analyzing IC reports (demand barrier 1). Interestingly, these analysts do not think that the fact that IC reports are generally not audited or verified (supply barrier 5) is a significant barrier. Only 33.3 percent of the sample believes that the impact of IC reports is greater when they are externally verified.

#### Case study 2. Intangibles in project appraisal at the EIB

The European Investment Bank (EIB) Group is the European Union's long-term financing institution. In parallel to the increased political awareness on the need to develop a more competitive knowledge-based economy in the European Union (EU), the EIB Group has significantly transformed its operations during the last decade. In 1994, the European Investment Fund (EIF) was created as a specialist vehicle for venture capital and guarantees to support SME's. With a total portfolio of some €7 billion, it has become one of the leading sources of venture capital within the Union.

As part of the strategy to improve EU competitiveness as set forth in the Lisbon European Council in 2000, the EIB launched the “Innovation 2000 Initiative”. It comprised a lending program of up to €15 billion over the period 2000/2003, and aimed to support investments promoting the information society, research and development, innovation and competitiveness, and human capital. In recent years, the role of the EIB in promoting an innovative economy in the EU is becoming increasingly important given:

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the decrease of private sector-led investments and lending for intangible-intensive projects caused by the collapse of technology equity markets;

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the shrinking pool of global investment capital for innovation; and

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lower tolerances for risk.

The EIB, according to its web site ([www.eib.org](http://www.eib.org) – last accessed in May 2004), “attaches special importance to the appraisal of projects”. Project appraisal at the EIB is based on the project's economic, technical and financial characteristics. It is similar to the standard credit risk analysis process described earlier but, in addition, involves an evaluation of the project's eligibility. Eligibility is rated on the basis of the project's compliance with those EU objectives which the EIB is responsible for promoting. Given the increased importance of innovation within the EIB's agenda, it badly needs new tools and processes for analyzing information on intangibles. Indeed, the EIB is facing the need to adapt its credit and investment appraisal practices to a rapidly changing environment where the relevance of intangibles is growing exponentially.

In two recent conferences held in Spain<sup>[1]</sup>, Jean-Jaques Mertens (principal technical adviser within the EIB and member of the Steering Committee of the E\*Know-Net project) has reported on how the Bank is reacting to this challenge. When it comes to evaluating intangibles, Mertens explains that the main issues for EIB are:

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specifying the Bank's criteria for financing intangibles; and

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assessing the quality of organizations' intangibles management practices.

With regard to the first, he recalls that intangibles may be financed either as a component of a tangible project or as a project in themselves. In the latter case, the Bank may finance “intangible activities that enhance the qualities of the resources they act upon, if the project is clearly identifiable and if its inputs and outputs are measurable”.

Regarding the second main challenge, i.e. the assessment of intangibles management, the EIB is developing tools and frameworks to help its staff “exercise judgment on how well intangible-intensive firms, organizations and projects identify, measure, manage and monitor critical intangibles and their evolution”, says Mertens. In this respect, he acknowledges that the system developed by the MERITUM Guidelines has proved to be very useful for that purpose. Mertens emphasizes that any attempt to evaluate intangibles management practices should focus on the system used by the firm to track its intangibles, to increase their efficiency and to monitor progress. He also remarks that intangible activities might be more important than intangible resources: “recording intangible stocks (number of PhD students, for instance) is not enough. How to get people working together constructively and releasing their potential is more important”, he explains.

The EIB has successfully taken its first steps in the complex process of integrating intangibles in the appraisal of proposed operations. But, according to Mertens, much work remains to be done. In particular, he notes that the Bank is now attempting to refine further the classification of intangibles and the criteria for their evaluation, by analyzing and interpreting data being collected. Another priority, says Mertens, is “disseminating the approach among analyst while ensuring coherence”. In this respect, he concludes that the lack of coherence between individual assessments might be a problematic issue and that standardization of systems would simplify the process.

There is much commercial banks could learn from the EIB pioneering experience. As it advances in this learning process, EIB could increase its positive impact on Europe's financial markets by further sharing its knowledge with commercial banks.

### 3. Conclusions and policy issues

Section: ▲▼

IC reports are relevant for credit risk analysts and could eventually have a positive impact on credit decisions, as they facilitate the evaluation of the firm's relative competitiveness and provide a good image of the firm's management team. It is not so clear, however, whether such reports currently have a real impact on credit conditions or access to funds for firms that publish them. Indeed, there seems to be a significant gap between the potential impact of IC reports and their present impact. This paradox can be explained by the existence of significant barriers in the market for corporate information.

If IC reports are to compensate the relevance problems associated with financial information, the existing barriers that have been described throughout this article would need to be alleviated through policies that promote:

- •  
improved reporting practices by the business community;
- •  
an upgrading of financial institutions’ internal routines and practices; and
- •  
a change in financial analysts’ mindset.

More specifically, the case study with BSCH suggests that the most important barrier is the fact that only a small proportion of firms currently publish IC reports. This calls for increased awareness generation efforts among the business community and, perhaps, for some kind of incentive to firms that publish IC reports. One of the priorities in the shorter term is to advance towards the development of a common language and a common reporting framework. In the longer term, a major dilemma might be whether to transform IC reporting from a voluntary practice to a compulsory reporting requirement.

Despite the fact that some credit institutions (for example the EIB) are already moving towards a more systematic analysis of intangibles, another important barrier is the lack of specific routines and tools for integrating IC reports into credit risk analysis. In this regard, recent initiatives such as the “Guideline for analyzing IC reports” sponsored by the Danish Government ([Danish Ministry of Science Technology and Innovation \(2003b\)](#)) are most welcome.

Another desirable policy would be to complement the Basel II regulations with an awareness generation effort regarding the growing relevance of information on intangibles and with a wider dissemination of existing methods for integrating intellectual capital indicators into credit risk analysis routines. A more aggressive (but perhaps premature) approach would be to include within the Basel II regulations new measures that reward banks for implementing improved processes for evaluating intangibles and IC reports.



## Notes

- “26th Annual Congress of the European Accounting Association” (Seville, April 2003) and “The Transparent Enterprise. The Value of Intangibles” (Madrid, November 2002).

## References

1. Barth, M., Kasznik, R. and McNichols, M. (2001), “Analyst coverage and intangible assets”, *Journal of Accounting Research*, Vol. 39 No. 1, pp. 1-34. [\[CrossRef\]](#), [\[ISI\]](#) [\[Infotrieve\]](#)
2. Bezzant, M. and Punt, R. (1997), *The Use of Intellectual Property as Security for Debt Transactions*, The Intellectual Property Institute, London.
3. Bjurström, E. (2003), “Attitudes toward IC-quantification”, *Proceedings of the 26th European Accounting Association Congress*, Seville.
4. Botosan, C. (1997), “Disclosure level and the cost of equity capital”, *The Accounting Review*, Vol. 72 No. 3, pp. 323-48. [\[ISI\]](#) [\[Infotrieve\]](#)
5. Brooking, A. (1996), *Intellectual Capital: Core Asset for the Third Millennium Enterprise*, International Thomson Business Press, London.

6.  
Bukh, P. (2003), “*The relevance of intellectual capital disclosure: a paradox?*”, *Accounting, Auditing & Accountability Journal*, Vol. 16 No. 1, pp. 49-56.  
[\[Abstract\]](#) [\[Infotrieve\]](#)
7.  
Cañibano, L. and Sánchez, P. (2004), “*Measurement, management and reporting on intangibles: state-of-the-art*”, *Accounting and Business Review*, forthcoming.
8.  
Cañibano, L., García-Ayuso, M. and Sánchez, P. (2000), “*Accounting for intangibles: a literature review*”, *Journal of Accounting Literature*, Vol. 19, pp. 102-30.
9.  
Danish Ministry of Science, Technology and Innovation (2003a), *Intellectual Capital Statements – The New Guideline*, Danish Ministry of Science, Technology and Innovation, Copenhagen, available at: [www.vtu.dk/icaccounts](http://www.vtu.dk/icaccounts).
10.  
Danish Ministry of Science, Technology and Innovation (2003b), *Analyzing Intellectual Capital Statements*, Danish Ministry of Science, Technology and Innovation, Copenhagen, available at: [www.vtu.dk/icaccounts](http://www.vtu.dk/icaccounts).
11.  
Desai, A. (2000), “*Does strategic planning create value? The stock markets believe*”, *Management Decision*, Vol. 38 No. 10, pp. 685-93. [\[Abstract\]](#) [\[Infotrieve\]](#)
12.  
Eccles, R. and Mavrinac, S. (1995), “*Improving the corporate disclosure process*”, *Sloan Management Review*, Vol. 36 No. 4. [\[Infotrieve\]](#)
13.  
Edvinsson, L. and Malone, M. (1997), *Realizing Your Company's True Value by Finding Its Hidden Brain Power*, HarperCollins Publishers, New York, NY.
14.  
European Commission (2003), *Study on the Measurement of Intangible Assets and Associated Reporting Practices*, European Commission, Brussels, available at: <http://europa.eu.int/comm/enterprise/>.
15.  
Eustace, C. (2003), “*Research findings and policy recommendations*”, *Final PRISM Report*, Cass Business School, London, available at: [www.euintangibles.net](http://www.euintangibles.net).
- 16.

Financial Accounting Standards Board (FASB) (2002), *Disclosure about Intangible Assets*, FASB, Norwalk, CT, available at: [www.fasb.org/project/intangibles](http://www.fasb.org/project/intangibles).

17.

García-Ayuso, M. (2003), “Factors explaining the inefficient valuation of intangibles”, *Accounting, Auditing & Accountability Journal*, Vol. 16 No. 1, pp. 57-69. [[Abstract](#)] [[Infotrieve](#)]

18.

Gröjer, J. and Catusus, B. (2003), “Intangibles and credit decisions: results from an experiment”, *European Accounting Review*, Vol. 12 No. 2, pp. 327-55. [[CrossRef](#)] [[Infotrieve](#)]

19.

Hall, M. (2003), *Measures to Increase the Effectiveness of Credit Risk Analysis in Corporate Lending through a Better Understanding of the Role of Intangibles*, Work Package 7, PRISM Project, available at: [www.euintangibles.net](http://www.euintangibles.net).

20.

Holland, J. and Johanson, U. (2003), “Value relevant information on corporate intangibles – creation, use and barriers in capital markets – ‘between a rock and a hard place’”, *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 465-86. [[Abstract](#)] [[Infotrieve](#)]

21.

Johanson, U. (2003), “Why are capital market actors ambivalent to information about certain indicators on intellectual capital?”, *Accounting, Auditing & Accountability Journal*, Vol. 16 No. 1, pp. 31-8. [[Abstract](#)] [[Infotrieve](#)]

22.

Kaplan, R. and Norton, D. (1996), *The Balanced Scorecard: Translating Strategy into Action*, Harvard Business School Press, Boston, MA.

23.

Lev, B. (2002), “Intangibles: what's next?”, *Proceedings of the Conference “The Transparent Enterprise. The Value of Intangibles”*, Madrid.

24.

Lev, B. and Zarowin, P. (1999), “The boundaries of financial accounting and how to extend them”, *Journal of Accounting Research*, Vol. 37 No. 2, pp. 353-85. [[CrossRef](#)], [[ISI](#)] [[Infotrieve](#)]

25.

Lim, L. and Dallimore, P. (2002), “To the public-listed companies, from the investment community”, *Journal of Intellectual Capital*, Vol. 3 No. 3, pp. 262-76. [[Abstract](#)] [[Infotrieve](#)]

26.

- Low, J. and Kalafut, P. (2002), *Invisible Advantage: How Intangibles Are Driving Business Performance*, Perseus Publishing, Cambridge.
27.  
Marr, B., Gray, D. and Neely, A. (2003), “Why do firms measure their intellectual capital?”, *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 441-64. [\[Abstract\]](#) [\[Infotrieve\]](#)
28.  
MERITUM (2002), *Guidelines for Managing and Reporting on Intangibles (Intellectual Capital Report)*, Vodafone Foundation, Madrid.
29.  
Morck, F., Hall, M. and Vali, E. (2003), *Banking and Venture Capital Metrics*, Work Package 7, PRISM Project, available at: [www.euintangibles.net](http://www.euintangibles.net).
30.  
Mouritsen, J. (2003a), “Intellectual capital reports as management technologies”, *Proceedings of the PRISM Conference on Intangibles*, London, July 4, available at: [www.euintangibles.net](http://www.euintangibles.net).
31.  
Mouritsen, J. (2003b), “Intellectual capital and the capital market: the circulability of intellectual capital”, *Accounting, Auditing & Accountability Journal*, Vol. 16 No. 1, pp. 18-30. [\[Abstract\]](#) [\[Infotrieve\]](#)
32.  
Norwegian Society of Financial Analysts (NFF) (2003), *Recommended Guidelines for Additional Information on Value Creation*, NFF, Oslo.
33.  
Organization for Economic Cooperation and Development (OECD) (1999), “Conclusions of the Amsterdam Symposium”, available at: [www.1.oecd.org/media/release/capintelconclusions.htm](http://www.1.oecd.org/media/release/capintelconclusions.htm).
34.  
Richardson, A. and Welker, M. (2001), “Social disclosure, financial disclosure and the cost of equity capital”, *Accounting, Organizations and Society*, Vol. 26 No. 7/8, pp. 597-616. [\[CrossRef\]](#), [\[ISI\]](#) [\[Infotrieve\]](#)
35.  
Roos, G. (2003), “An intellectual capital primer”, *Proceedings of the PRISM Conference on Intangibles*, London, July 4, available at: [www.euintangibles.net](http://www.euintangibles.net).
36.  
Scientific Generics (2000), *Funding of New Technology-based Firms by Commercial Banks in Europe*, European Commission, Brussels.
- 37.

Shirreff, D. (2003), “*The Basel faulty*”, *The World in 2004*, The Economist, London.

38.

Sveiby, K. (1997), *The New Organizational Wealth*, Berrett Koehler, San Francisco, CA.

#### Further Reading

1.

Chaminade, C. and Johanson, U. (2002), “*Can guidelines for IC reporting be considered without addressing cultural differences?*”, *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 528-42. [\[Abstract\]](#) [\[Infotrieve\]](#)