

# THE COMPETITIVE ADVANTAGE GAP: A EUROPEAN POLICY PERSPECTIVE

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**Abstract:** *The paper argues a case for greater transparency in the performance data about the modern economy, and calls for a much richer disclosure of the real asset base of firms and public enterprises. The underlying postulate is a shift from tangible to intangible factors of competitive advantage - from natural resources, machinery and financial capital to 'non-price' factors of competition, such as R&D and proprietary know-how, intellectual property, workforce skills, world-class supply networks and brands. Driven by their relentless search for new factors of differentiation and market leverage, firms are therefore trying to create, maintain or invade monopolies founded on intangibles.*

*In developing these ideas, the paper presents a schema of the emerging corporate asset base and concludes by examining some of the challenges for the European policy community, based on the first-year results of the PRISM research initiative.*

## Introduction

In January 2000, a European High-Level Expert Group on the Intangible Economy (HLEG) was set up in response to a request by the European Commission Directorate-General for Enterprise. Its first report, published in October 2000, presented new evidence on the influence of business intangibles on corporate performance and productivity, together with an assessment of the implications for companies, financial markets, public institutions and regulators.

European Commissioner Erkki Liikanen, in his opening address to the European Forum "Entrepreneurship for the Future" in Växjö, Sweden<sup>2</sup>, stated that:

" ..... a key issue for our Forum is how to respond to the question of *intangibles*. The Commission has initiated work in this area which has produced some encouraging results, notably in the form of the report of the High-Level Expert Group on the intangible economy, which lays out a conceptual framework and a strategy for making progress with this issue. The issue of intangibles is clearly one that requires a response from the policy makers. It will increasingly feature across the economy and needs to be addressed. However, as the High-Level Expert Group noted in their report, regulation in this area is not appropriate, at least at this stage. The approach has to be to extend the adoption of existing good practice and promote further work on the questions that still have to be answered."

To this end, starting in October 2001 a 2-year programme of socio-economic research was launched to bring together leading experts from the business, academic and policy communities who are working in this field. The initiative - known as PRISM - involves eight academic institutions in seven European countries, and is co-ordinated by the Cass Business School at the City University, London<sup>3</sup>. The results have been disseminated through regular, open forums and a network of European business and academic institutions. This infrastructure also acts as a

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<sup>1</sup> Based on a presentation given on 25 November 2002 at the "Transparent Enterprise" conference at the Autonomous University of Madrid

<sup>2</sup> In connection with the March 2001 Stockholm Summit

<sup>3</sup> PRISM comprises the following coalition of academic research institutions: Cass Business School (UK), Copenhagen Business School (Denmark), Ferrara University (Italy), Henley Management College (UK), IESE Barcelona (Spain), KTH Royal Institute (Stockholm), TSM (Netherlands) and UCC (Ireland), together with visiting experts from the USA and Australasia.

clearing-house for the main interest groups - companies, financiers and investors, lawyers and professional accountants, regulators and policy analysts.

## **The Policy Research Agenda**

The PRISM research agenda involves a programme of interdisciplinary research and normative studies directed at four key areas:

(i) The first centres on the new and emerging theory of the firm. It is often argued in business and academic circles that the global economies have undergone a structural shift in the mode of wealth creation over the past few decades, driven mainly by changes in the architecture, pace and connectivity of the corporate value system. If this is so, management challenges and practices will be evolving in response. What is it about this 'new' economy that requires the development of new tools?

(ii) Our second theme leads naturally from the first. If indeed there are fundamentally new management challenges, this will impact directly on the established norms of measurement practice. These business routines and metrics were devised when firms operated within fixed boundaries and the management focus was geared to resources that were physical, and owned. An important feature of today's digitally-enabled economy is the separation of the physical and legal boundaries of the enterprise, and the fragmentation of the old legal entity into a labyrinth of licenses, contracts and other trading agreements, often involving multiple jurisdictions.

(iii) The third concerns the perspectives of different economic actors. What do our findings mean for corporate executives? How are the banks, venture capitalists and other members of the investor community adapting their analytical models, standards and regulatory practices?

(iv) The fourth theme concerns the implications for the established policy set. What are the principal policy and regulatory implications of the 'new' economy? What should the EC be doing at a policy level to improve Europe's chances of delivering on the Lisbon objective of becoming the most dynamic, competitive and knowledge-intensive economy in the world by 2010?

The research content is guided by a 30-strong Advisory Council, whose main role is to provide a business-oriented policy focus. Essentially an expanded HLEG, its members are senior figures from the main interest groups who, while non-executive, have an important influence in guiding the research and ensuring that the materials produced have a practical commercial or policy application. In this connection, the outreach programme is aimed at seven broad communities of interest:

- Preparers of enterprise (private and public) performance-related information
- Trade users (institutional, commercial and private investors, banks & credit institutions, financial analysts, etc.)
- Lawyers, auditors and professional accountants, and their regulatory bodies
- The public policy community (macroeconomists, statisticians, market regulators, policy analysts, journalists, etc.)
- Consultants, information hosts and other intermediaries
- The business academic and education communities
- The general public and 'citizen clients'

## Key Conclusions

### (i) *What is really driving change in the modern business economy?*

In traditional business economics, competitive advantage is usually attributed to the successful exploitation of economies of scale, underpinned by a unique technology or dominance of geographical markets or supply-chains. This was always an over-simplification, and it is now accepted that winning corporate strategies are more often grounded in the accumulation and creative exploitation of intangibles. The empirical evidence suggests that successful players in competitive markets are those that have access to a corpus of unique - or at least difficult-to-replicate - capabilities and competences. It is these that form the mainspring of competitive advantage. They are systematically exploited, first internally (via monopoly rent and scale effects) and then externally through licensing arrangements (scope effects), until eventually they end up as a pool of commodity assets - open to easy replication by competitors and new low-cost entrants<sup>4</sup>.

Our thinking is based on the following hypotheses for the competitive behaviour of firms today:

1. We are in economies of surplus (characterized by mature markets for goods and services but also the non-exhaustion/ non-rivalry characteristics of intangibles)
2. Concurrently, the business services sector is maturing (commoditizing) rapidly and we are seeing a marked shift from selling time to selling assets (institutionalized & codified know-how)
3. As markets have become increasingly mature (commoditized), so firms are having to compete harder for (monopoly) profits or comparative advantage
4. This has forced firms – not only in the ‘new economy’ sectors but in mature industries struggling to stabilize their value chains - to intensify their search for new factors of differentiation and market leverage. As a result, they are increasingly competing using ‘non-price’ factors of competition
5. They are therefore trying to create, maintain or invade monopolies founded on intangibles
6. Intangibles typically have low barriers to entry – hence the growing importance of IPR to provide an exclusive window of market opportunity (monopoly rent).

### (ii) *Emerging Issues for the Interest Groups*

Economic theory has not kept pace with the market-led developments, partly because the processes and causal links are complex and have been slow to yield to analytical methods. But the business and academic research pioneers have also been frustrated by deeper cognitive and measurement problems whose roots go deep into the backbone of our existing macro and micro information systems, which are unable to produce routine, systematic information on the stocks and flows of the modern economy<sup>5</sup>. Instead, we have to rely on other studies for glimpses of what has been happening:

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<sup>4</sup> Or as Don Tapscott succinctly puts it “ It used to be that competitive strategy was all about the internal challenge of either creating differentiated products or services or having lower costs. The key to strategy now is architecting capability”

<sup>5</sup> Hill & Youngman: PRISM interim report, September 2002

- Investment in knowledge intangibles has been rising for many decades and is now a substantial feature of the expenditure of national economies, companies and individuals. This has not only transformed the economic landscape but also acts as a social catalyst to promote changes in work and leisure patterns. Intangible investment in the major OECD economies is now running at between 50-100% of their outlays on acquiring and building physical assets. It also shows significant country variations across the EU<sup>6</sup>
- Nakamura<sup>7</sup> estimates that in 2000, US corporate investment in intangibles was US\$ 1 trillion - comparable to investment by the US business sector in property, plant and equipment. Half of this was related to R&D and software, the balance was directed towards other intangibles such as brands, human resources and organizational processes
- Creative occupations in the U.S. rose from 1.9% of the total in 1950 to 5.8% in 2000 (Nakamura)
- Knowledge workers are the fastest growing segment of the OECD's labour force, with an average annual growth rate of 3% during the 1990s
- The proportion of the Australian labour force engaged in the production of intangible capital rose from 16% in 1971 to 31% in 1996 (Webster)
- By 1998 only 15% of the S&P500's market value was attributed to tangible assets, compared to 62% in 1982
- 50-90% of the value generated by the corporate sector is attributable to intangibles<sup>8</sup>
- PRISM's research and case studies reveal the existence of intangibles across a wide range of companies and industries, small and large, old and new.

### (iii) *The Shifting Corporate Asset Base*

The following section lays out a provisional schema of the knowledge value-chain of the modern enterprise that attempts to integrate the perspectives of the various interest groups, adapting pre-existing models<sup>9</sup>.

Conceptually, Michael Porter's classic model<sup>10</sup> addresses the physical supply chain and the value-building process from the context of a logistical materials flow. His value system traces products from the original producer to the ultimate consumer. The value system described in this paper offers a parallel perspective by tracing the essential knowledge flow of the modern business organization. In so doing, we present a taxonomy of the new, emerging corporate asset base. In common with Porter's system, the model as presented is heuristic rather than causal.

Our starting point is that successful players in today's hyper-competitive markets must have access to a corpus of unique, or at least difficult-to-replicate, capabilities, competences and quasi-assets in order to stay ahead of the game. It is these that provide the mainspring of competitive advantage. They are systematically exploited, first internally (via monopoly rent and scale effects) and then externally through licensing arrangements (scope effects), until

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<sup>6</sup> Hill & Youngman, *ibid*

<sup>7</sup> Nakamura, *Proceedings of the 4<sup>th</sup> US conference on intangibles, New York University, May 2001*

<sup>8</sup> Hope and Hope (1998), "Competing in the third wave: the ten key management issues of the information age"

<sup>9</sup> For a fuller discussion of the taxonomy of intangibles see Eustace & Youngman (2002)

<sup>10</sup> Porter (1985)

eventually they end up as a pool of commodity assets, open to replication by competitors and new low-cost entrants.

The results of our first-year research programme would suggest that the key value-drivers can be conceptualized in terms of four asset groups:

**Figure 1: The Emerging Corporate Asset Base**



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The four segments in combination present a holistic view of the various capabilities, competences, legal rights and physical and financial assets that constitute the extended capital base of the modern business enterprise.

Some lie within its physical and legal boundaries, while others are to be found outside within its network of influence. Some intangible assets are *embodied* whereas others may be *disembodied*. A typical definition of human capital is that provided by the OECD (1998)<sup>11</sup>, namely that human capital is the “knowledge, skills, competences and other attributes embodied in individuals that are relevant to economic activity”. Disembodied intangible assets generally take the form of legal instruments created by force of law or by contractual relationships agreed between institutional, or economic, units.

<sup>11</sup> OECD (1998)

In the two left-hand segments we present an analytical framework for the latent capabilities and competences of the enterprise. The first of these – latent capabilities – represents an essential reservoir of potential talent, knowledge and know-how that is the organization’s main source of future competitive advantage and prospective earnings. Collectively, these attributes provide a leading indicator of its ability to respond to market threats and opportunities that are as yet unknown, and often unknowable. Latent capabilities are what investors, in particular venture capitalists, are interested in. Flushing out, exploiting and renewing these is what distinguishes good from indifferent corporate leadership.

Competences, on the other hand, are more-or-less codified (but still proprietary) capabilities. They often rely heavily on the organization’s ICT infrastructure and, as such, their substance and form can be migrated rapidly around the world via digitally-enabled networks. Following Vollmann, we divide these into distinctive, core and routine competences:

- *Distinctive competences:*     *Key factors of differentiation that are difficult or costly to replicate*
- *Core competences:*             *Competitive necessities – what you must have to compete*
- *Routine competences:*         *Routine activities you must do, or outsource, in order to stay in the game.*

The right-hand segments group those assets over which, at least in principle, ownership rights can be appropriated and values assigned - generally by reference to open-market transactions or future cash flows. For the purpose of the schema, ‘intangible goods’ are made up of two main sub-classes, intangible commodities and intellectual property. Intangible commodities are essentially contractual rights, including publishing and reproduction rights, commercial databases and other marketable software with associated long-term royalty annuities. The defining characteristic is that they can be bought, sold, stocked, leased and otherwise traded. On the other hand, intellectual property includes those assets whose essential characteristics are derived from the legal system, e.g. patents, copyrights, registered designs, trade secrets and proprietary technology. In this case the cost and time of legal searches can be significant and rises dramatically in situations where multiple legal jurisdictions are involved (Rivette and Klein, 2000).

The second group ‘intangible competences’ are highly valued by successful companies for their strategic importance in differentiating the market offer from the competition. Although the assets involved are generally bundled together and interdependent to such an extent that they are difficult (but not impossible) to isolate and value, they are now widely deployed as key factors of ‘non-price’ competition. However important intangible competencies are in underpinning the business value chain, these are much more difficult to measure and value consistently across organisations. So it can be concluded that the primary thrust of research and development of intangibles measurement should be devoted to the intangible goods segment of Figure 1.

The category ‘tangible assets’ embraces both physical assets (such as land and buildings, plant, machinery and equipment) and financial assets (cash, receivables and securities). These constitute the main components of the current reporting model and provide the essential material basis for allocating capital and credit, and collateral for a range of debt security instruments.

Note that the essential market dynamics are reflected in the model. The flow is from left to right (only exceptionally the other way) - towards commoditization, disclosure and diffusion.

## Key Policy Questions

The digitally-enabled knowledge economy poses a considerable challenge to our existing policy framework and regulatory conventions, and the implications for policy analysis span many academic disciplines and professional and regulatory interests.

Since the fall of 2001, the United States has witnessed market failure at its most extreme, but this cannot be dismissed merely as an American corporate governance failure. There is a deeper, longer-term and more international problem - we are running today's knowledge-based economies with tools inherited from a 19th century manufacturing era. Knowledge is now a fundamental component of our value-delivery systems, but our understanding of how to measure that knowledge and value is, at best, immature.

Our preliminary policy conclusions are based on the following assumptions:

- (i) EU policy will continue to be built around the three main pillars of competition, trade and social policy (and reflect the changing tensions between them)
- (ii) Broadly speaking there are two approaches to regulation. One is to impose standards from the outside, top-down. The other is to foster better self-regulation based on clearly articulated norms and good practice. Top-down regulation is of limited effectiveness unless it has a consensus of support among the regulated community. Also, the sheer scale of the corporate and financial governance problem in the U.S. has shown that a prescriptive rule-based approach is not necessarily the best answer for complex and dynamic markets. Self-regulation is generally more effective<sup>12</sup>
- (iii) Policy intervention may be required if one or more interest groups exhibits institutional delinquency or undue resistance to changing mindsets and practices, for example in reinforcing effective governance or adapting reporting conventions to keep pace with the changing economic landscape. How this scenario pans out will depend on the response of the market players and their regulatory institutions.

Set against this background our initial view is that:

1. There is an overriding need for much more transparency in the operation of the EU's capital, product and labour markets, and the activities of their intermediaries. We need to build a level playing field on disclosure in order to rebuild market confidence
2. Regardless of whether direct policy intervention is deemed necessary, or appropriate, a common thread is required to create and inform the linkage between these levels - in the shape of 'meso' information systems to complement the various macro and micro systems already in place. At the corporate level, we urgently need a European version of the U.S. SEC's Edgar information system. The big question is how the system should be approached politically, since the hardest part is getting agreement between countries and regulators. In addition, there are only limited calls for increased disclosure, like that of the U.S. Sarbanes-Oxley Act of 2002
3. Given the weight and influence of services across the modern economy, the EU should take steps to build a better understanding of their fragmented (and generally hidden) productive processes. This is an acute problem that requires a response from the policy and statistical communities. Given that two-thirds of Europe's GDP now comes from services, agreement on an EU-wide framework for tracing and reporting on their productivity and their different value-generating mechanisms should be afforded a top political priority

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<sup>12</sup> In this connection there is widespread fear in European business circles that government is championing more information and disclosure to identify more taxable values. This resistance needs to be taken into account in any policy response on the intangibles issue

4. Attention is also needed to a long-overdue reform of the measurement protocols for R&D investment in services. In particular, the problem of capturing reliable R&D information for the business and financial service sectors requires priority attention at the EU level. Its resolution will be an important plank in achieving the Lisbon objectives and the drive to raise R&D investment from 1.9% to 3% by 2010

5. In respect of a Single European Market for intangibles, renewed policy pressure is needed to address the persistently high transaction costs of doing business in Europe. In particular, the costs and inconvenience of obtaining and protecting IPR across the EU, and the costs and time delays of cross-border payments (notwithstanding the introduction of the euro) are barriers that warrant closer attention at the EU level

## **Conclusion**

The policy reforms discussed in this paper will impact directly on the academic community, since the universities (especially the European business schools) will need to be brought centre-stage in the policy research and change programme. They will also impact directly upon the academic syllabus. Young people need to be exposed early to these new perspectives and this will require a radical shift in academic content, away from the old-world deterministic accounting mindset in favour of a mindset geared to understanding the real value-drivers in the various business sectors from a context of active, imperfect markets that are rife with connectivity and arbitrage opportunities.

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