

1. Introduction

1 DOES COMPETITIVENESS MATTER?

Since the mid-1980s a growing number of businesspeople, policy makers and researchers have recognized the importance of international competitiveness for economic growth and standard of living. At the same time the rapid technological change, increasing mobility of productive resources and the growing structural problems of industrialized economies have called into question the validity of traditional neoclassical economic theories (Lazonick 1993; Dunning 1995a; Heilbroner and Milberg 1997; Fogel 1999). These theories are based on the assumption of efficient markets, no unemployment of productive resources, international immobility of resources and global specialization of production based on comparative advantage. Also the Keynesian demand management policies appear increasingly irrelevant today in the face globalizing markets and weak or non-existent supranational monetary and fiscal authorities. The diminishing policy relevance of macroeconomic theories is gradually shifting the economic policy debate to the microeconomic determinants of economic efficiency, competitiveness and growth (see OECD 1997a, 1997b, 1997c, 1997d).

The microeconomic policy debate evolves around *absolute* rather than comparative advantage. Absolute advantage, or *competitive advantage*, as it is more generally known, is the key determinant of economic growth and living standards in today's highly specialized and integrated, technology-intensive, and rapidly changing world economy where many of the basic premises of traditional economic theories do not hold (Dunning 1995a; Hatzichronoglou 1996). So far business practitioners, organizational management scholars and public policy makers have been more interested in competitiveness than economists.

The economists' lack of interest in competitiveness issues stems from the insufficiency of the traditional economic theories in the face of rapid technological change and globalization of the world economy. The competitiveness issue contradicts the basic premises of the established theoretical paradigm which makes it an illegitimate object of enquiry. The economists' negative attitude has been strengthened by the preliminary state of competitiveness theorizing which, with its many misconceptions, inaccuracies and over-simplifications, has been

an easy target for the attacks of critical economists trying to protect the old theoretical paradigm.

The most prominent economist to critique the competitiveness concept is Professor Paul Krugman. In his famous article 'Competitiveness: Dangerous Obsession', he made a strong attack against the competitiveness concept and those who use it:

The idea that a country's economic fortunes are largely determined by its success on world markets is a hypothesis, not necessarily a truth; and as a practical, empirical matter, that hypothesis is flatly wrong. That is, it is simply not the case that the world's leading nations are to any important degree in economic competition with each other, or that any of their major economic problems can be attributed to failures to compete on world markets . . . Competitiveness is a meaningless word when applied to national economies (Krugman 1994a, pp. 30, 44).

To argue his point, Krugman used the traditional Ricardian trade theory which emphasizes the benefits of economic specialization based on comparative advantage (see Krugman 1994b). In this theory a country's low absolute productivity (competitiveness) poses no special problem because it can be compensated with lower factor prices and specialization on those goods and services in which the country is comparatively more productive. As a result what matters to living standards is not the performance of national economies *vis-à-vis* other nations rather than their domestic productivity growth: '[I]n the real world . . . the success of a country in exporting depends not on absolute but on comparative productivity advantage' (Krugman 1994b, p. 272).

Although Krugman's data shows a strong correlation between improvements in labor productivity and standard of living the fact that modern economies are very complex systems puts a big question mark on any single-factor explanation of economic growth and standard of living. Clearly there are many different factors behind the growth in living standards, and the productivity itself, for that matter, for example those related to the availability, quality and upgrading of productive resources. We introduce many more in Part 3 of this book.

John Dunning has pointed out that the problems with Krugman's argument become more visible if we look more carefully at the basic premises of traditional trade theories. At least five of them stand out (Dunning 1995a):

1. All resources and capabilities are being efficiently deployed in their present usage. This means that all firms (and other organizations in the economic system) are operating on their optimum production functions, (allocative efficiency) and at the frontier of these functions (technical or X-efficiency).

2. All resources and capabilities are immobile across countries and any inter-country differences in the performance of firms or industrial sectors are unavoidable.
3. The extent of resource or capability upgrading and development is minimal and/or such assets are instantaneously and costlessly available to all firms.
4. There are few or no market failures and all firms compete under conditions of perfect competition. This assumption does not allow any firm-specific proprietary advantages or idiosyncratic strategies.
5. There is no unemployment or unused capacity of resources.

In traditional trade theory the comparative advantage of nations is determined by their absolute (dis)advantages (productivity levels) *vis-à-vis* other nations. If the absolute advantages of a nation are not large enough to fully employ the entire work force and other productive assets at the prevailing wage levels and factor prices, the latter must decrease until full employment is restored (see Krugman 1994b). This may be necessary, for example, when new countries enter the world markets with better absolute advantages and/or lower factor prices. Since countries cannot improve their absolute advantages (premises 2 and 3 above), they are more or less 'doomed' to their existing production structures and comparative advantages. As a result the theory of comparative advantage underlines the importance of factor price and exchange rate flexibility; in other words, price competitiveness. Without price competitiveness, the theory predicts, increasing international competition will result in growing structural unemployment and unused capacity.

As we can see the theory of comparative advantage offers very few and unattractive policy options for policy makers interested in their nation's long-term welfare. Still, in the absence of a better theory of competitiveness for modern economies, many countries continue to build their policies on this theory (Hatzichronoglou 1996). These countries run the risk of neglecting a wide variety of efficiency-enhancing and growth-promoting policy options which stem from the pervasiveness of market failures in modern economies (Stiglitz 1989a). Such market failures may warrant an active government role in, for example, developing the nation's education system, physical and communications infrastructure, financial and innovation systems, factor and product market competition, tax and incentive systems, domestic demand patterns, product market information, government policies as well as institutional rules and regulations.

Many of the assumptions of traditional economic theories are very problematic in the context of modern economies characterized by rapid technological and structural change, institutional rigidities, weak incentive structures (particularly in the old welfare states), imperfect competition, pervasive

market failures, mass unemployment and international mobility of productive resources (Dunning 1995a). In these circumstances it is not clear that economies with poor competitive advantages can reach full employment and capacity utilization simply by lowering their wages and other factor prices; or by artificially boosting their aggregate demand. And if they can the level of factor income and living standards may be unacceptably low.

There is yet another problem with Krugman's use of the traditional trade theory in the modern context. This is the growing significance of mobile resources in the production process (see Dunning 1995a). In the theory of comparative advantage, firms are assumed to be completely constrained in their locational choice since all productive resources are country specific. There are also no multinational enterprises (MNEs) because no enterprise is presumed to possess any competitive advantage over firms in another country in which it might be contemplating a foreign direct investment. In the modern world economy, however, MNEs do exist and they can quite easily shift their production among countries according to the quality and costs of the host country's complementary location-specific resources. Since these productive investments may have a great impact on the competitiveness, factor income and factor utilization rates of national economies governments have begun to compete in attracting them into their own jurisdictions. Such competition is based on the competitiveness of national operating environments for different kinds of productive activities and firm strategies (OECD 1996a). MNEs seek the absolutely best environment for their activities, not the comparatively best one. Thus countries offering the best operating environment for only a few productive activities or sectors may see their investment and growth rates lagging behind those that offer better framework conditions for firms.

We have no problem with Krugman's key argument that the productivity growth is the single most important source of improved living standards, provided he is talking about advanced economies.¹ However, in modern economies, the level and growth of aggregate productivity is largely dependent upon the *degree* and *nature* of national competitive advantage, particularly in the smaller and more open economies.

When a major part of the economy is exposed to international competition and the demand conditions for the rest are largely dependent upon this part's success the rate of aggregate productivity growth (and living standards) is, to a great extent, determined by the nature of competitive advantage in the internationally exposed sectors. To elaborate on this argument we must distinguish between a competitive advantage that is based on non-price factors (such as quality, speed, design, color, taste, performance etc.) and that which is price- and cost-dependent. We will term the former competitive advantage as 'real' competitiveness.

If a country has a significant real competitive advantage in sectors where

the level of productivity is both high and rapidly increasing, its standard of living will be higher and develop more favorably than it would without such an advantage. Since the lack of real competitiveness in high productivity (growth) sectors can only be compensated with lower prices and costs an uncompetitive economy must either select a low-price, low-cost strategy, if feasible in a particular sector; or specialize in other sectors where it is. Such price- and cost-driven sectors tend to be rather labor-intensive and involve mature technologies. National specialization on these kinds of sectors means lower productivity growth and standards of living than specialization on sectors in which competitiveness is primarily based on non-price factors. Hence, *the nature and sectoral composition of a nation's competitive advantage is a crucial determinant of the level and growth of its aggregate productivity, and consequently the nation's living standards.*

This is an important conclusion. It means that the determinants of competitiveness and economic growth are roughly the same in a modern economy. As a result, our search for a better theory of competitiveness will also be a search for a better theory of economic growth. In addition the established growth theories will provide important building blocks for our theoretical framework.

In today's global, technology-intensive and highly specialized world economy the supply-side framework conditions of industry are important determinants of firms' competitive advantage, value-adding capacity and productivity; and consequently, the absolute and comparative advantage of nations. In economies where international trade, foreign direct investment and cross-border strategic alliances have exposed a growing share of domestic production to world class international competition, and an increasing number of firms have become 'footloose' in their locational decisions, these framework conditions quite naturally attract the attention of businesspeople and policy makers. Unlike the followers of traditional trade theories they believe that nations can influence their own destiny and welfare in the long term by improving their competitive advantages.

The main purpose of this book is to develop a systemic and dynamic theoretical framework for the analysis of national competitiveness and economic growth in the modern world economy. The framework is introduced in Part 1 and elaborated in Parts 2, 3 and 4. This framework incorporates the key determinants of competitiveness and growth identified in economic, organizational management, international business and other relevant fields of research. The deductive and interdisciplinary nature of our approach combines the benefits of a holistic and flexible theoretical *framework* with the analytical power of the more specific *theories and models* that underlie it. The underlying theories facilitate a more in-depth analysis of specific determinants of competitiveness and growth.²

The world economy is currently going through a major technological and

structural change which amounts to a fundamental 'technoeconomic paradigm shift' (Freeman and Perez 1988). This shift is quickly changing the nature of the core framework conditions of industry. In Part 2 of the book we analyze the long-term dynamics of socio-economic systems in order to understand the new challenges that the current paradigm shift poses to the competitiveness and growth of industrialized nations. The key determinants of competitiveness and growth in the emerging new paradigm are analyzed more carefully in Part 3.

The rapid structural change also tends to call into question established social theories. The current paradigm shift seems to have done this *inter alia* to economics and sociology (Heilbroner and Milberg 1997; Beck 1998). One of the key weaknesses of mainstream economics is that it does not take organizational issues very seriously. Building on the assumption of efficient markets, the established theories have not paid enough attention to the impact of organizational arrangements on economic performance. The efficiency of organizational arrangements has become increasingly important over time as the economies have become more specialized, complex and transaction- and knowledge-intensive. Modern economies cannot be efficiently governed by the market mechanism alone. As a result Part 4 of the book develops a new theory of economic organization that will redefine the organizational division of labor among the private, public and third sectors of the economy at different geographical dimensions (local, national, international). This 'macro-organizational' theory can explain important long-term and more recent trends in economic organization. More importantly it defines a new efficiency- and growth-facilitating role for governments that fits the new technoeconomic environment better than the old neoclassical and Keynesian paradigms.

Finally, in Part 5, we use our dynamic competitiveness and growth framework to make the first broad empirical test of how differences in national framework conditions and structural adjustment capacity influence the international competitiveness and economic growth of industrial economies during a technoeconomic paradigm shift (see Abramovitz 1995). For this purpose we build a large international database of the key factors in our competitiveness and growth framework. We use this database to benchmark the adjustment of 22 OECD countries to the current paradigm shift in the world economy. We find out that the economies best adjusted to the new socio-economic environment are outperforming those that are lagging behind in the adjustment process. The empirical results emphasize many parts of our competitiveness and growth framework, especially the new macro-organizational role of government. However many questions will still require further research.

2 DEFINING SYSTEMIC COMPETITIVENESS

Dozens of books and articles have been published about the issue of competitiveness, each taking a somewhat different approach to defining, measuring and explaining it.³ These studies have focused on several different analytical levels: *product*, *firm*, *industry*, *industry cluster* and *nation*. Despite all the discussion and research, however, there is still no comprehensive theoretical framework for analyzing competitiveness.

The fragmented approaches to analyzing competitiveness remind us about the story of the blind men and the elephant (John Godfrey Saxe [1816–87] cited in Mintzberg 1990). The blind researchers seem to be touching different parts of the ‘competitiveness elephant’ and developing partial explanations of it without seeing the whole ‘beast’. Each of their approaches illuminates some important aspects of the issue but typically neglects others (Buckley et al. 1990; Francis 1989; Nelson 1992). The lack of a generally accepted paradigm of competitiveness creates both practical and theoretical problems. Besides puzzling policy makers and business practitioners, the fragmented theories and measures of competitiveness put a serious doubt on the results and policy implications of the rapidly growing research in the area. In short a more comprehensive theory of competitiveness is urgently called for.

An important reason for the fragmented research approaches is the interdisciplinary nature of the competitiveness concept which attracts scholars from different disciplines such as economics, international business, organizational theory and strategy, and marketing. These scholars differ in their research interests and approaches and thus emphasize different measures and explanations of competitiveness. For example Nelson has noted that strategy scholars emphasize managerial choice in explaining the competitive success, whereas economists largely neglect the firm-level variables and concentrate on industry- or national-level explanations such as national savings, physical investments and educational improvements (Nelson 1991). These multiple perspectives suggest that the different explanations of competitiveness could form complementary parts of a more systemic framework (Nelson 1992).

The divergent approaches to competitiveness have produced many different definitions of the concept. Some of the differences stem from the fact that some researchers focus on the *input- or resource side* of competitiveness, others on the *efficiency of organizational processes* and the rest on the *competitive performance* (Buckley et al. 1990; Hatzichronoglou 1996). The problem with focusing on just one part of the ‘competitive process’ is that it will give a narrow and biased picture of competitiveness and may lead to suboptimal policies. The first four parts of the present study focus on the determinants of competitiveness: i.e. the first two stages of the competitive process. The last,

empirical, part examines the link between the determinants of competitiveness and competitive performance.

The appropriate definition of competitive performance differs among firms, industries, regions, nations and supranational regions because their objectives are not the same (Buckley et al. 1990; Hatzichronoglou 1996). Firms typically aim at increasing their profits and market share; whereas geographical jurisdictions focus on improving the living standards and welfare of their citizens. It is important to note that these two objectives do not always co-inside; particularly when firms' goals are inversely related to the level of factor employment and incomes in a particular area. Indeed the central aim of competitiveness policy (or modern industrial policy, structural policy, macro-organizational policy) is to create framework conditions where both firms and the surrounding society can become competitive and prosperous at the same time.

This study focuses on the competitiveness of a national economic system. We use words such as 'economic system' or 'systemic competitiveness' to emphasize the holistic nature of our framework and the close interdependencies among the core determinants of competitiveness in modern economies.

The performance measures of our empirical study are limited to the purely economic aspects of standard of living and national welfare. Hence we use two indicators of national competitiveness in international markets (growth in export market share, specialization in high tech exports), two indicators of economic growth (gross domestic product (GDP) growth, GDP/capita growth) and one indicator of standard of living (GDP/capita). However we do acknowledge that the standard of living and welfare of people not only include their economic status but also the non-material components of well-being such as social equality, clean environment, low crime rates, long-standing social relationships and so forth (Abramovitz 1959; Olson 1990). These factors put certain caveats on our performance measures which tell very little about the distribution of income in the society, its employment level, the quality of jobs involved or the very different situations in which the unemployed find themselves. Moreover we have to recognize that different nations put very different weights on these non-economic dimensions of welfare, which may affect their economic competitiveness and performance.

Jones and Teece clarify the relationship between economic competitiveness and standard of living in the following way:

Competitiveness is not an end in itself. It is a means to an end. It is a measure of a nation's economic capability and potential in the world economy. Nations that are competitive are in a position to fully capture the benefits of a liberal international order. They are also in a position to fashion it and to meet domestic social and economic goals as well. Nations that were once internationally competitive, but then lose that position, face wrenching economic, political, and social adjustments (Jones and Teece 1988, p. 109).

It is exactly the fear of these 'wrenching economic, political, and social adjustments' that has recently focused the attention of policy makers on competitiveness. Unlike many economists, real decision makers cannot wait for more sophisticated theories of competitiveness. They must act before the theoretical paradigm shifts.

NOTES

1. In the less developed countries, resource accumulation and upgrading are also very important (Chenery and Syrquin 1986; Barro and Sala-i-Martin 1995).
2. Empirically derived competitiveness frameworks, such as the 'diamond model' of Michael Porter (1990), tend to lack the analytical power of the more specific theoretical models; on the other hand the narrower models often neglect many important determinants of competitiveness and growth.
3. For good reviews of the competitiveness literature, see e.g. Buckley et al. (1990), Fagerberg (1988), Francis (1989), Nelson (1992), OECD (1996a) and *Oxford Review of Economic Policy* (special issue, no. 3, 1996).