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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

**POLICY BENCHMARKING IN THE DEVELOPING COUNTRIES AND
THE ECONOMIES IN TRANSITION: PRINCIPLES AND PRACTICE**

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SECRET

This report was prepared by Mr. F. Sercovich, IPC/IPR.

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Policy benchmarking: principles and practice

Introduction

Policy-makers in developing countries and economies in transition face the daunting challenge of coming forth with ever more relevant, focused and effective policies to attain sustained growth, improve living standards and eliminate poverty and disease. As an unprecedented wave of policy reforms sweeps across developing countries and economies in transition, new ways are being sought to meet these demands.

Recent experience demonstrates that unilateral liberalization programmes in developing countries and economies in transition need to be coupled with policies aimed at assisting the economic structure cope with unprecedented levels of exposure to international competition. This accommodation is neither instantaneous nor spontaneous. An over-reliance on automatic mechanisms and the prompt reaction of markets and institutions may be as detrimental to policy success as the belief in the omniscience of the state.¹

Framework policies to promote manufacturing competitiveness are particularly needed at a time of ever more intense competition in the world market as well as offensive and defensive protectionist measures in the developed world.

As a result, levelling the playing field - seldom a concern for the closed economies of the past - has now come to the fore, along with capacity building, as an absolute policy priority since it affects growth and welfare through its impact on resource allocation. Although this priority is primarily country-specific, it is also common to most developing countries and economies in transition, thus calling for renewed multilateral action.

Co-operation among countries in the policy field may consist of harmonization, co-ordination or joint assessment, or benchmarking. A salient feature of these three levels of co-operation is the declining need for top-down intervention and centralized execution. In contrast to the first two, experience of policy benchmarking is very limited, especially cross regions, where it offers the greatest potential.

Policy harmonization

Steps towards policy harmonization often focus on compliance with international covenants and codes voluntarily adhered to on a bilateral or multilateral basis. Adherence in this case usually entails acceptance of some constraints on the scope for autonomous decision-making in specific policy areas to gain access to markets, technology or finance. The most conspicuous example is the agreements reached in the Uruguay Round of trade negotiations.

Highly formalized trade blocs such as the European Union and MERCOSUR represent other examples. Harmonization may be focused on a common schedule of tariff and non-tariff reduction, as is the case with free trade agreements such as AFTA and NAFTA and associations such as that between MERCOSUR

¹ Lack of policy effectiveness may also be due to factors that are beyond the reach of policy-makers and the skill and competence of policy practitioners, having less to do with intrinsic merits of policy itself than with lack of conditions that are necessary for policies to work, such as the ability to institutionalize and endogenize the policy-making process.

and Chile. These normally also include an array of complementary deals in areas such as domestic content and clauses of origin. Conditionality represents yet another route towards policy harmonization. MNCs favour policy harmonization as it helps them to reduce transaction costs.

Policy co-ordination

Policy co-ordination takes place when two or more countries decide to take a common stand in international fora. Examples are those of MERCOSUR and ASEAN in their negotiations as blocs with EU or ASEAN's common position in WTO on issues such as adoption of a MAI and labour clauses. The EAEC is being enacted as a forum to discuss mutual problems and arrive at a common stand. Similar aims are pursued by groupings such as the G-15 and the Rio Group. Policy co-ordination is a more flexible and looser form of co-operation than policy harmonization since its scope, objectives and length may vary from case to case.

Policy benchmarking

Competitiveness policy benchmarking is a relatively new tool to monitor process and to assess the situation against continuously improving best practice worldwide on an ongoing basis. Its effective use requires close consultation and joint work with the enterprises sector. It serves to assess not just well or poorly firms, specific subsectors and entire sectors perform in a given country as compared with their counterparts in other countries but also the factors that determine competitive performance. It goes beyond competitive analysis by providing an understanding of the processes, skills and capabilities that create superior performance. In doing so, policy benchmarking links up with the key medium- and long-term issues of concern to industrial development policy.

Economic performance results from the interplay between resources, institutions and policy catalyzed by the action of economic agents. As globalization proceeds and capital and technology move ever more freely across borders, countries increasingly compete through policies ("policy competition") in order to take advantage of their natural and human resources shaping their institutions, as best they can, to raise continuously their competitive performance standards. Roughly similar countries that do better provide the ideal yardstick for comparison.

Galvanized by the increased globalization of the world economy, policy benchmarking presents a new frontier for multilateral co-operation. It offers a challenge to policy-makers everywhere, especially in developing countries and economies in transition, to devise new and more practical and effective ways of mutual collaboration.

Although information flows across borders more freely than ever before, the variety and complexity of the information to be assessed also proliferates leading to greater opacity rather than greater transparency. This is aptly illustrated by the growing web of often-overlapping international trade and investment agreements. Since 1947, 98 regional trade agreements have been notified to GATT under Article XXIV with a further 11 under the 1979 Enabling Clause, which applies to developing countries and more than a third of them just during 1990-1994. Likewise, by July 1996, there were 1160 bilateral investment agreements underway, two-thirds of which were signed since 1990 and 1972 in 1995 alone.

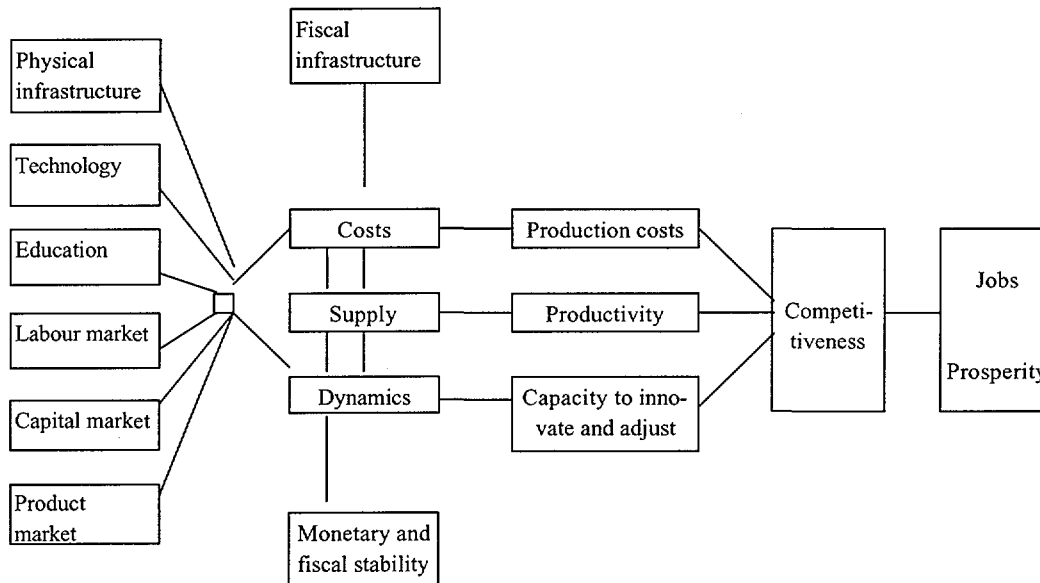
Best Practices Benchmarking in the Netherlands

In 1995 the Ministry of Economic Affairs of the Netherlands did an evaluation of the competitiveness of the Dutch economy. The dynamic international environment resulting from policy competition and ever shorter policy reaction time made it necessary to compare the Netherlands' position with that of other countries in terms of their performance policy and institutions in a number of key areas. The method adopted was borrowed from industry's approach of looking at others in order to learn from them. In this case the comparisons were with Belgium, Denmark, Germany, Japan and the United States.

The test was comprehensive ranging from monetary and fiscal stability to research and training and from physical infrastructure through the tax system to technological development. Strengths and weaknesses were identified and acted upon. The social capability to combine cost efficiency with continual innovation was given special emphasis, on the grounds that it is the interplay between a dynamic, competitive market sector and strong government that creates the essential climate for competitiveness. The test adopted a private sector perspective by focusing on the conditions of the business environment.

The figure below describes the test methodology: five infrastructural themes, two factor markets and the market for goods and services were distinguished. The impact of these on company costs, supply and the capacity to innovate and adjust was then assessed. The test did not factor in social infrastructure and elements of the welfare state.

Test methodology



The test results were summarized by means of high, average or low scores for each theme. In the main report, the findings are placed in perspective and discussed in detail including, where possible, an assessment of the underlying institutions.

The general results pointed towards the need to create a modern economic structure, modernize education policy, strengthen the entrepreneurial climate, improve the functioning of the labour market and restore government finances.

Regarding *technological infrastructure*, the Netherlands scored high in public sector R&D and respective outputs, average in the extent to which public R&D and education met business needs and low in high-tech and private sector R&D performance. This points to the conclusion that incentives were needed to make the public research system address private sector requirements.

Some of the key findings in the field of *education and training* were that (i) value added by compulsory education scored high, (ii) training qualifications of higher secondary vocational and general education as well as university output scored average and (iii) the match between the qualifications of secondary and university graduates and the labour market needed improvement.

The results concerning environment revealed that the Netherlands held a leading position in sewage treatment and recycling while sulphur oxide emissions were being kept to a minimum. Nitrogen oxide emissions per capita, as well as waste generation, were found to be average. The main environmental weaknesses lay in excessive use of fertilizers, spread of pollutants and motor car emissions. The overall conclusion was that the environmental factor could stimulate innovation leading to comparative advantages.

(Source: Benchmarking the Netherlands, Test of Dutch Competitiveness, Ministry of Foreign Affairs, the Hague, December 1995.)

Benchmarking has been used as a management tool at the enterprise level for some time now. Yet policy benchmarking at the national level is still at the teething stage. European governments have begun to adopt it as a key tool only very recently. Likewise, the European Commission (EC) is also in the process of doing so in an effort aimed at assisting European manufacturing enterprises to match their US and Japanese rivals in areas such as productivity and innovation. In this, the EC is relying on enthusiastic endorsement by the private sector as well as co-operation. In this, the EC is relying on enthusiastic endorsement by the private sector as well as co-operation from Japan in the automobile and consumer electronics sectors. This co-operation is in the interest of Japanese enterprises with final assembly operations in EU countries to help upgrade the technical standards of their local suppliers as much as possible.

Productivity Benchmarking in Malaysia

In its 1996 report the National Productivity Council warned that Malaysia total factor productivity (TFP) growth had declined and would slide further if not checked. TFP is expected to account for some 30 per cent of overall economic growth for the next five to ten years. Malaysian workers, however, according to the report, displayed one of the lowest productivity levels when compared with the Republic of Korea, Taiwan Province, Hong Kong and Singapore. Similarly, manufacturing productivity was lower than in Singapore, Taiwan Province, and the Republic of Korea.

The findings suggest that Malaysia is losing out to its East Asian competitors, thus triggering a national debate on ways to address the problem. The Minister of International Trade and Industry, Datuk Seri Ratdah Azis admitted that Malaysia would have a tough time competing with its neighbours in the future. The Government can provide the infrastructure investment incentives; political stability and conducive investment climate. But the answer lies in the innovativeness, technological drive and competitiveness of Malaysian businessmen.

It was found that some two-thirds of manufacturing firms had barely reached low-level automation and even greater share devoted little resources to R&D. Although often at the forefront of exports, Malaysian manufacturers appear reluctant to invest in cutting edge-technologies. According to Tan Sir Ramon Navaraman, an influential businessman, the key question is how to persuade them to phase out labour-intensive industries and move faster into more capital- and technology-intensive activities. Among the main bottlenecks are a low ratio of liberal arts to science students and the fact that R&D is perceived as highly risky uncertain and costly. Among other steps to address the problem, the Malaysian Government, through the Ministry of International Trade and Industry (MITI) is launching a *quality and productivity benchmarking service* under the National Productivity Corporation. The service will promote a continuous monitoring of productivity performance as management tool to enhance and sustain competitiveness. MITI has also recently launched a *National Productivity Enhancement* campaign to counteract resistance to improving quality and investing resources in technology upgrading. This resistance is seen as a serious problem in view of the co-existence of growing external competition and inadequate internal competition as well as stumbling block in reaching the objective of the Industrial Master Plan II. The National Productivity Corporation is advocating the adoption of policies with emphasis on TFP, increased added value content in manufacturing activities, improved capacity utilization and, labour learning skills and higher R&D.

In addition, the Malaysian Government and Industry for High Technology (MIGHT), a government department under the Prime Minister's Office, has suggested a scheme whereby firms that do not spend enough on R&D be penalized. Firms exceeding a certain share capital would be required to contribute a small percentage of their earnings to a proposed R&D fund. Depending on how much R&D they perform, they would get their money back - eventually with a premium.

Originally developed as a management tool to assist individual enterprises to identify their weakness and strengths in relation to competitors and thus help them to identify ways of improving their relative performance, benchmarking was adopted by the Japanese, particularly through MITI, the Asian NICs and somewhat reactivity, the United States Department of Commerce, as a tool of national policy, followed later by the Europeans. Now the concept is gaining currency. The South-East Asian countries have become among the quickest to incorporate benchmarking, but the practice is spreading swiftly to a variety of institutions, including non-economic ones, in all regions and is being tentatively tested by a growing number of governments (for some examples see Boxes). To the extent that the latter's scope and

objectives differ from - albeit they also embrace - those of enterprises, direct extrapolations from the enterprise management approach not always appropriate.

To avoid the time lag of a decade or more usually involved in assimilating best practices in nearly all fields, developing countries and economies in transition can adopt - and profit - from this policy tool in order not to be too far behind most advanced industrial countries, particularly the Europeans. They can do so by moulding it according to their own needs and priorities rather than waiting until the benchmarking process fully matures and then having to acquire it on a turnkey basis. The idea is to use an approach of adopting by adapting, rather than trying to duplicate the experience of others.

Co-operation among countries in policy benchmarking consists of realizing the potential for learning from each other in policy-making, as the industrial countries do through OECD. A UNIDO survey indicates a clear need in developing countries and economies in transition for this emerging form of co-operation.

Policy benchmarking needs to be undertaken in a methodological, systematic and organized way. While government and decision-makers in developing countries and economies in transition increasingly draw on international policy experience, they often do so either in an erratic, non-methodological way or by complete outsourcing, more often than not abroad, at above normal prices.

The need for a more rational, cost-effective and autonomous approach can be overstated. Because only sparse resources, if any, are usually allocated to benchmarking, it is frequently tackled by relying on information and advice from less than neutral third parties, rather than by drawing on applied analysis.

Indeed, a powerful economic rationale underlies such an approach. The important economies of scale and scope involved can hardly be reaped when the exercise is done at the individual country level. This is one of the reasons why EC is launching its own work in this field - with Japanese co-operation.

As in so many other instances, outsourcing may appear natural to many developing countries and there sine other choices may not be available. Yet, when relying on specialized overseas suppliers, developing countries and economies in transition ought to be in a position to scrutinize rigourously the assumptions, methods and criteria used by the supplier. This is vital since the whole purpose of the exercise, as performed in the advanced industrial countries, is to foster the competitiveness of domestically located enterprises. The tool is designed to serve the specific needs of - and empower - business rather than to add glamour and clout to the work of government officials.

Benchmarking needs to be an ongoing exercise, simply because the shelf life of information on policies as well as of data on performance is usually rather short.

Competitiveness Benchmarking in the EU

Europe's competitive position is under permanent review. Two aspects are considered critical: the impact and efficiency of the Internal Market and information technology and communications. Three dossiers have been produced recently on these matters: (i) a Commission document entitled 'The Competitiveness of European Industry', a working document of November 1996 that includes macroeconomic and sectoral comparisons of the main indicators of competitive strength revealing that European industry is in a less favourable position than that of the United States or Japan, (ii) the 'Report on the Impact and Effectiveness of the Single Market', an assessment of efforts to integrate the Internal Market meant to help strengthen the competitive position of European firms on world markets, and (iii) 'Benchmarking of the Performances of European Industry in the Area of Information and Communications Technologies (ICT) which warns that, in terms of the competitive status of the sector, European policy is not taking sufficient account of the increasingly global nature of the ICT industry. The study, carried out by Booz -Allen and Hamilton, calls for dramatically accelerated "reform to help boosting economies growth". It was found that in general European competitiveness in ICT lagged substantially behind that of the United States and Japan in all major subsectors except public telecommunications equipment. The fragmentation of ICT-related policies standards and infrastructure was found a significant factor underlying Europe's fading competitiveness, expressed in a stagnating share of traditional mass market products and falling behind the United States in the critical growth areas of software and contents. The United States was found to lead in software, consumer electronics, information technology, hardware and private network equipment. One of Europe's major bottlenecks was shortage of skilled personnel with European firms 50 per cent behind their United States rivals in value added per employee. In emerging softer markets that are key for multimedia services, Europe's competitive position was very weak with 18 of the 20 top vendors coming from the United States. The European telecom sector was becoming increasingly competitive a liberalization proceeded, but varying states of deregulations were causing a fragmented landscape. In the highly competitive semiconductor subsector, Europe has held a relatively stable position but in information technology, hardware and consumer electronics it experienced a small loss of market share.

As ways out of this predicament, it is recommended that regulatory framework covering all ICT subsectors be established along with an ICT-related R&D programme, a single European standardization agency for all subsectors concerned and an initiative to boost skills. The co-operation scheme between government and industry, implemented in the case of GSM mobile phone networks is recommended as a model.

Source: European Union.

Normative versus positive benchmarking

Policy benchmarking can be approached either in a *normative* or *positive* manner.

In the *normative* approach, the criterion for benchmarking may rest, for instance, on the assumption that markets do as good a job as can possibly be done at clearing themselves by matching supply and demand at the right prices. From this standpoint, the role of policy consists of removing whatever interferes with the working of the market, be it weak property rights or legislation which hinders resource mobility. For instance, if the aim is to determine how well an economy performs in the labour market, the standard to be used will be that of a country that comes the closest to conditions of entirely free entry and exist - that is, hire and fire - and to atomistic wage bargaining and that has the lowest possible wedge between labour costs and net wages. By defining best international practice in the labour market in this way, the closer a country comes to such a practice the better, in theory, it performs.

Policy benchmarking is intended to give governments an effective tool to foster enterprises' international competitiveness. Hence, highly valorative approaches are unlikely to help since they colour the exercise with views that, no matter how justified when it comes to setting goals, may be not that useful in understanding how outcomes are actually arrived at across countries.²

² Market transparency is imperiled when there is imperfect and asymmetrical information, uncertainty and bounded rationality. But even under these conditions, some countries do better than others, for instance, in averting jobless growth and high unemployment, through the implementation of suitable offsetting policies. This involves a positive, as opposed to a default policy paradigm, which consists of defining manufacturing competitiveness and industrial development policies as a residual left over after other policies have been specified.

Positive benchmarking is about identifying which policies work best *under specified conditions*. The specificity clause is crucial. Without a thorough grasp of the conditions under which policies succeed, benchmarking exercises may lead to the wrong conclusions since similar policies cannot be expected to render similar results in different environments.

If, for instance, the Asian successful industrializing countries are chosen as a standard, it is vital to account *for* such exogenous factors as the role of close economic relationships with Japan, China and the ASEAN countries, along with domestic factors that influence the effectiveness of policy implementation.

Another example refers to the complex interplay between macro- and microeconomic policies. When the ways in which gaps between these two are bridged are overlooked, a key link is missed in comparative exercises. One of the necessary considerations for a meaningful policy benchmarking exercise is a clear perception of how macro and micro policies relate to one other at national level. This is easier said than done: the relationship between the two is seldom addressed. The positive approach is more likely to serve as a consensual tool than a normative one, since it rests on more widely shared criteria on what constitutes policy success, such as sustainable gains in welfare, growth, equity, jobs, earnings and quality of life.

One of the key objectives of positive policy benchmarking is to identify and remove bottlenecks on the supply side that make social and private returns to investment diverge either through under-investment or through rent seeking.

The use of benchmarking as a policy tool is, if anything, much harder to perform than most other interventions. This can be illustrated by contrasting current with previous approaches to policymaking.

The skills and conditions required to formulate and implement policies designed to level the playing field in a competitive environment - insight, discernment, mastery of information and analytic method, consensus-building, focus, explicit and transparent standards of attainment and accountability - are more stringent than those involved in discretionally allocating and redistributing resources from the top, as used to be the case in the past.

It is much easier to appropriate the resources needed to subsidize a given activity or to concede to it a set of privileges and then simply await the results than to work proactively with enterprises in identifying their weaknesses and strengths in a competitive environment, devising an incentive system and playing an effective role as inducer, matchmaker, catalyzer, enabler and sponsor. Furthermore, the latter approach often needs to be tailored to specific needs, as in the case of SMEs or specialized regional clusters. The task becomes even more daunting when it comes at capturing, let alone measuring, externalities and spinoffs. This should be added to objectives such as skill and capability creation and technological development as part of policy-making, rather than merely relying on one-shot investment policy decisions.

Benchmarking in detail

To avoid a mass of inarticulate data of doubtful use for policy analysis, it is important to delineate carefully what is to be measured and how such results are to be used.

First, it is necessary to specify what the exercise comprises and what it does not. A way of doing so is suggested in Figures 1 and 2. Figure 1 provides an approximate idea of the overall analytical framework. Figure 2 focuses on the core of the exercise itself.

Rather than assuming a hierarchical relationship between macro and micro policies, Figure I depicts one of interdependency with both jointly contributing to define the incentive regime through such key relative prices as exchange and interest rates and level of effective protection. The incentive system thus arrived at, with the added influence of structural and superstructural factors such as political environment, juridical security, ownership and social structure, determine the functioning of factor and product markets and, through them, competitive performance. There is no one-way causality between many of these variables.

Figure 2 depicts what is meant by functioning of markets. It does so by expanding the respective box in Figure 1. Figure 2 distinguishes between factor and product markets and provides broad performance appraisal criteria for them. Then the analysis is broken down according to level of aggregation - firms, subsectors, industry - and the relevant indicators of performance are specified.

Far from being a mechanical tool, unfortunately, there is considerable scope for uncertainty in this approach as a result of: (i) two, or more-way causalities and interactions; (ii) difficulties inherent in factoring in institutional constraints and (iii) varying time-lags and response times.

Other points in this analysis deserve emphasis.

First, there is no clear division between supply of and demand for factors of production. Unlike the past, when supply of scientific and technological knowledge, education, skills and public goods, in general, were supposed to come from government, now firms are being called on to contribute increasingly through their own knowledge-generating and skill-building activities. They are also becoming more involved in infrastructural supplies such as transportation, telecommunications and energy.

For these reasons, a rigorous distinction between inputs and outputs along sectoral lines becomes less relevant. The education system supplies skills inputs to industry, but it has its own production function in generating skills from skills and other factors. Therefore, its own proficiency needs to be benchmarked in terms of responsiveness, quality, relevance and the like. The same applies to scientific and technological infrastructure. On the other hand, although industry is a user of skills it also produces them through formal training and learning-on-the-job. Therefore, it also has its own production function relating to skills.

Figure 1. Benchmarking competitiveness policies

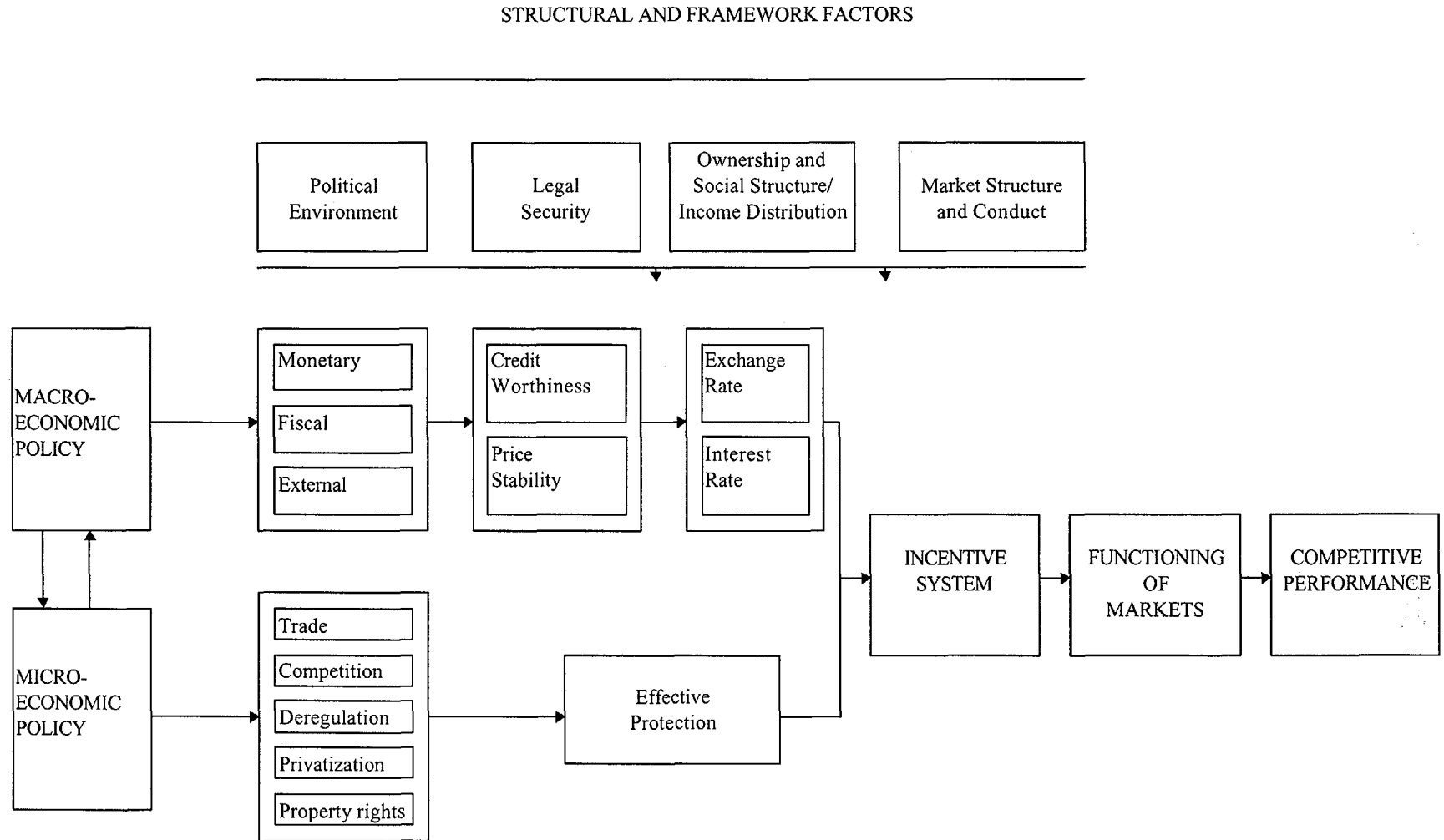


Figure 2. Benchmarking manufacturing competitiveness policies

A. Markets	B. Broad Performance Appraisal Criteria	Indicators of Performance by Level of Aggregation		
		C. Firms	D. Subsectors	E. Industry-wide
I Factors				
i. Natural resources	- Cost - Availability		<i>(Idem as in C. plus:)</i>	<i>(Idem s in D. plus:)</i>
ii. Physical and support infrastructure	- Quality	- Formal and informal (on the job) training - Skill levels: cost and utilization		
iii. Scientific and technological research and development	- Quantity - Relevance	- Innovative effort: . RDE/Sales		
iv. Education and training	- Proficiency - Responsiveness	. rate of new product/process introduction . generic technology adoption rates	- Relative unit labour costs - Rate of growth of exports	
v. Skills			- Export/output ratio	- Total factor productivity
vi. Labour	- Participation - Flexibility - Social security	- Investment in- and vintage of- plant and equipment	- Trade balance	
vii. Capital	- Spreads - Venture capital supply - Corporate and household savings	- Domestic and international market shares	- Revealed comparative advantage	- Gross investment on MVA
		- Profitability	- Ex-battery limits costs (infrastructure services, social security, taxes)	- FDI on gross investment
II. Products		- Retained profits		
Low, medium, high technology- and skill-intensity	- Quality - Variety - Price - Environmental friendliness and sustainability	- Cash flow and indebtedness		

So firms are increasingly involved in joint production of their core products and services as well as of knowledge and skills. The latter has a market value that is directly correlated with their potential for transfer. For this reason, the competence of a firm is not just relevant to the firm itself but also to its suppliers, customers, and competitors, who may draw upon the information and skills it generates.

This leads to the importance of benchmarking exercises, particularly for SMIs as well as for manufacturing competitiveness strategy.

Competitiveness strategy: interplay between capacity-building and levelling the playing field

SMIs can benefit most from benchmarking activities. They are usually unable to allocate resources to generate knowledge and skills although they can greatly assist in raising overall productivity levels just by spreading best practices among themselves. Because of asymmetry of information and in access to resources, this is normally not favoured by the market. Benchmarking exercises assist in taking advantage of the benefits to be reaped by helping to unleash the immense potential inherent in the diffusion of information, knowledge and skills among SMIs. Advanced industrial countries and successful industrializing countries have been the first to develop and use techniques and institutions to tap this potential (See Boxes).

Benchmarking exercises are also intended for large enterprises and, among them, MNCs. Yet, the variety and quality of the available information does not always match their requirements in every respect, so they can also draw important benefits. Their experience, in turn, can be drawn on by their specialized suppliers, whose awareness of best practices is thereby increased such as in the case of Japanese automobile and electronics firms operating in Europe.

Bottom-up flows of initiatives and information and decentralized execution as well as a sense of partnership between government and private sector are key attributes of successful benchmarking exercises. These seek to increase competitiveness, flexibility and responsiveness of enterprises to changes in technology, relative prices and demand, thus fostering structural change.

These objectives involve permanent monitoring in order to level the playing field so that key requirements such as information, finance and institutional resources become accessible to all users. This involves enabling the weakest, yet potentially competitive, ones among them, such as SMIs, to draw on such resources. For this reason, policies towards factor and institutional development -including competence and capacity building, human resource development and technology diffusion - along with broader goals that concern overall development objectives are as important as those aiming to level the playing field. Structural change and competition need and feed each other.

Given the growing adherence by governments to rigorous standards of macroeconomic discipline amounting to a narrower room for manoeuvre at this level, the above-mentioned strategy draws on using better to greater scope for action available at more decentralized levels.

Skill-building, for example, can be fostered without drawing on the national budget through cooperation between the technical training institutions and enterprises along the line of the German dual system. Financial support to dynamic SMIs can be mobilized through institutional adaptations that enable them to become fully eligible for loans such as by assessing the market value of their

intangible assets. Examples of this kind can be multiplied with reference to technology diffusion. Their key commonality is that they do not involve resource transfers by taxing those who perform better. SMIs may, in some, instances require subsidies, which can be fully in line with current international codes and covenants in the trade and investment fields.

* *

Despite their value as a means to allocate resources, markets are of little help when it comes to set goals for society. In times of rapid change, societies need to articulate a sense of direction. The most successful countries are those that are able to define a vision on which policies are predicted. As ever more developing countries and economies in transition come to this realization and hence, endeavour to articulate or reformulate their own vision in an increasingly interdependent world economy, the need for reciprocal policy dialogue, and learning in the policy field gains in priority.

Skills Benchmarking: the British Experience

The need to foster and improve vocational skills has been the driving force behind a unique benchmarking exercise undertaken recently in the United Kingdom.³ Stemming from the Government's 1995 Competitiveness White Paper, *Forging Ahead*, the Skills Audit measured the United Kingdom's performance at the level of basic qualifications for employment against that of four competitor countries, France, Germany, Singapore and the United States.

The Audit gauges the competitiveness of a country by the level and the rate of change of gross domestic product per head of population.

Different types and levels of skills and qualifications were examined in terms of the following categories:

- basic skills (literacy and numeracy at a very low level)
 - General Certificate of Secondary Education (GCSE) level two (the standard tested at the end of compulsory schooling)
 - GCSE level three (intermediate skills)
 - higher level qualifications (sub-degree, degree and postgraduate levels, including professional qualifications)
 - core skills (numeracy, communication, information technology, learning ability and teamworking)
- lifetime learning (education and training after initial education, supplied either by employers or through individuals themselves)

The methodology for conducting the Audit involved a review of existing research, new research on qualification levels and equivalencies, sector benchmarking studies, a survey of MNCs operating in the countries.

Overall, the Audit revealed that the skill levels of young people were improving in all the countries studied, although the balance and speed of improvement varied. The United Kingdom continued to maintain a strong position in higher education with its performance similar to that of France, Singapore and the United States. However, the German lead at this level was found to be striking. British performance at lower levels was improving but was not yet equal to that of the leader.

At GCSE level three, the Audit showed considerable improvement in France and the United Kingdom. As in the case of higher education, there was a very high and growing proportion of qualified Germans, including a significant number with vocational qualifications.

The United Kingdom's higher education system was found to be making powerful contribution to national competitiveness through its range and diversity as well as its emphasis on quality and access. Since 1988, the proportion of young people enrolling for higher education doubled. At first degree or sub-degree level, 37 per cent of graduates followed science-related courses and more than 15 per cent received specific professional qualifications.

³ See the Skills Audit, 1996.