In Search of the Silver Bullet for Productivity Growth: A Review Article of *The Power of Productivity* and *Transforming the European Economy*

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WITH THE STRONG PICK-UP in productivity growth in the United States since the mid-1990s, the question of whether there is a silver bullet has engaged many policymakers and analysts. In particular, many European countries and Japan have been struggling to find the key to accelerated productivity growth. Other countries, including for example the East Asian Tigers, have seen their productivity growth rates slow down, and even China is realizing that 6-7 per cent annual productivity growth is not sustainable. Meanwhile, much of the developing world desperately tries to find ways to increase efficiency in combining their scarce resources (physical and human capital) with their abundant production factors (people and – in many cases still – land).

Many studies have analyzed the causes behind the increased divergence of productivity growth in the world economy, contributing to a better understanding of the sources of growth and divergence. The *International Productivity Monitor* has been a useful vehicle in communicating the research outcomes. Strong investment in information and communications technologies (ICT) and other high-tech capital goods, supported by R&D, has been widely identified as an important source of productivity advance. Investment in human capital has also been stressed, as has been the need for more productive use of ICT. And the crucial role of structural reforms in labour, product and capital markets has often been mentioned. Still it seems the silver bullet has not yet been found.

In this review article, I discuss two recent and comprehensive studies which I expect will become very influential in the debate on productivity and economic growth during the next few years. The first book by William W. Lewis is *The Power of Productivity*.[2] It reports on the outcomes of a decade-long research program undertaken by the McKinsey Global Institute (MGI) on the determinants of productivity and employment growth, mainly based on comparative country studies at the industry level. The second book by Martin N. Baily and Jacob F. Kirkegaard is *Transforming the European Economy*.[3] Although taking a broader analytical perspective than just produc-

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2 *The Power of Productivity: Wealth, Poverty, and the Threat to Global Stability,* by William W. Lewis (Chicago: University of Chicago Press, 2004), pp. 339, $35 U.S. hardback.

tivity, it also makes extensive use of the MGI productivity studies. Baily was a senior consultant at MGI during the 1990s (interrupted by stints as Member and Chair of the Council of Economic Advisors during the Clinton administration) and shaped much of the MGI research program. Reviewing the two books together therefore is not just an opportune occasion to take stock of the evidence on comparative productivity performance, but also an opportunity to assess what the MGI program has achieved.

The main reason to discuss these two books together is that – despite their differences, which I will address in some detail below – they largely convey a similar message. To first quote Baily and Kirkegaard (hereafter B&K): "The most important theme of this book is that workers, companies and policymakers must adapt to change" (p. 3). And to that, Lewis adds what he believes is the silver bullet, that is, intense and fair competition in product markets. Lewis pursues this theme consistently by stressing the need to always put the consumer first: "Consumers are the only political force that can stand up to producer interests, big government, and the technocratic, political, business, and intellectual elites" (p. 11). I doubt that B&K would disagree with the latter statement, although their argumentation is more subtle and less bold. B&K also discuss the implications of their analysis for economic policy-making, in particular in the European Union, whereas Lewis lays out a setting for a change in the mindset of not only policymakers but of all economic actors.

In addition to their key messages, the two books have much more in common. Both take a detailed approach, focusing on individual countries and – in many instances – on individual industries. Although based in the United States, the authors of both books are very well informed about developments outside the United States. Both studies put a strong emphasis on productivity as the only sustainable source of economic growth. Employment also receives much attention, but the emphasis is on the creation of high productivity jobs. In this review article, I will first give a detailed summary and assessment of the two studies, and then provide a general critique.

The *Power of Productivity* reports on the results of 19 research projects on productivity and economic performance that the McKinsey Global Institute carried out during the 1990s. Lewis was the founding director of MGI and led the productivity research program over a period of almost 10 years. MGI used a unique research strategy making use of the experience of over 250 McKinsey consultants who were usually freed up for a period of several months to work on the productivity studies. They used practical knowledge from their client base, but also relied on external expertise provided by 35 well known academic scholars (mainly economists) in the productivity field. These McKinsey researchers undertook a range of research tasks, such as productivity level comparisons and estimation of capital stocks for selected industries. Five MGI studies were thematic studies, focusing on productivity in services, in manufacturing, in the health sector, on employment performance, and on capital productivity. In addition, the MGI undertook 14 country productivity studies, which included not only large OECD economies, but also smaller ones such as the Netherlands and Sweden, and some major non-OECD countries, including Brazil, India and Russia. The major omission in this range of countries is (unfortunately) China.

Following a summary of the main findings in the first chapter, the book is organized into three parts. Part one contains four chapters on the productivity experience of high- and middle-income countries. These chapters are rich in

3 *Transforming the European Economy,* by Martin Neil Baily and Jacob Funk Kirkegaard (Washington: Institute for International Economics, 2004), pp. 340, $29.00 U.S. paperback.

content and use the results from industry case studies, which are themselves very interesting. The chapter on Japan (Chapter 2) puts emphasis on the low productivity growth path of most of the Japanese economy, except for part of manufacturing (notably the automotive and electronics industries). The chapter on Europe (Chapter 3) concentrates on the complex mix of social and economic policies that has created high levels of labour productivity but low labour force participation, and hence relatively low income compared to the United States. Lewis stresses the relative lack of consumer spending power as one of Europe's problems. The chapter on the United States (Chapter 4) focuses on the very productive use of capital as an important cause of higher labour productivity growth. It also downplays the "new economy hype" of the late 1990s related to ICT. Rather, it stresses the key role of competition. Finally, the chapter on Korea (Chapter 5) emphasizes the persistently low productivity levels of many industries, and the need for a greater role for market forces and less government intervention.

Part two contains three chapters on low-income countries. The chapter on Brazil (Chapter 6) blames big government for lack of competition and the rise of a large informal sector which avoids the high taxes imposed on the formal sector. The chapter on Russia (Chapter 7) deals with the distortion of competition arising from naivete on the part of policymakers on how capitalism actually works, vested social and capitalist interests, and outright corruption. The chapter on India (Chapter 8) also stresses the huge number of distortions that reduce productivity, but it also recognizes the difficulty in breaking the mechanisms that sentence a large part of the Indian population to poverty. These chapters do not avoid the big issues, such as the role of the informal sector, corruption, and the causes of poverty. They also include some, what may be called, participatory research. For example, one McKinsey consultant describes spending a few days with a woman running a small store in one of São Paulo's favelas:

> "He gained access by agreeing to provide day care services for the woman's child while he was there. He got information on prices, on total sales, and on how the woman spent her time ..He found that the woman was idle half her time ..She would certainly have been able to perform one of the low-skill jobs in high-productivity supermarkets or convenience stores. If the child was a problem, she could work part-time. Everybody would seem to be better off." (p. 151)

Part three pulls together some of the strings from the previous chapters. The negative effects of high taxes, excessive minimum wages and big government on productivity growth are of course obvious tracks of argumentation. But Lewis raises additional controversial issues as well. For example, he does not see education playing an important role in productivity growth, an issue that will be addressed later in the article. Lewis also argues that there is not a major role for capital *intensity* as an explanation for differences in labour productivity across the rich countries: the key is the *productivity* of the capital used, which is highest in the United States compared to other developed countries. He claims that consumers – in particular in poor countries – should be granted the right to obtain more income than needed for basic necessities even if such a development raises the threat to global warming: "I would rather have my children, grandchildren and great-grandchildren have to deal with the problem of global warming than with the problem of a huge economic difference between rich and poor countries (p. 260)." He is also not convinced that strengthening individual property rights, in particular for poor people, which is crucial for development in the view of such scholars as Mancur Olson and

Hernando de Soto, is the key. Indeed, Lewis' silver bullet is liberty and freedom to choose.

It sounds good, but I am not fully convinced. Lewis and his McKinsey colleagues have in my view not gone far enough to drive the point home that consumer interests need to reign producer or political interests. This is because the author appears to hold some grudges in particular against the academic economics profession. Clearly he is no big fan of the traditional statistical toolkit of economists and he does not really believe that macroeconomics is of much use to understand the issues better. This is regrettable, because at places some of his bold statements would have been more convincing if he (or some of his colleagues on the team) had taken the trouble to do some more formal statistical analysis. This would reduce concerns the reader may have regarding sample size of the companies looked at, their representativity and the causality relationships that are identified, among other issues. The claim that certain relationships (for example, between competition and productivity) are linear contradicts recent literature that finds non-linear (e.g. U-shaped) relationships. By criticizing and ignoring the achievements in the economics and statistics professions, Lewis has thrown the baby away with the bathwater. It has put the study at risk of becoming part of the long range of mono-causal studies stressing a single silver bullet. What makes such studies less credible is that a silver bullet is unlikely to exist.

My other major comment is that the MGI work is somewhat oversold. To its credit, the work by MGI may have influenced the economic debate in the United States, as claimed by the author (p. xix). The industry-level studies are indeed very rich and provide many new insights. But the claims – which are frequently repeated – that productivity analysis in the past has largely focused at the macrolevel of the economy, that the MGI is the first to take the microeconomic approach to productivity seriously, and that this situation is due to economists' lack of time and resources to investigate how an economy works, is simply not credible. In reality, the boom in microeconomic productivity analysis using longitudinal databases at the firm level with sound statistical methods has greatly increased our understanding of the microdynamics of productivity growth.

Still – even without the formal testing – the bottom line of Lewis' story is well argued and very powerful and – most importantly – one that is often overlooked. The need to change the policy mindset from serving producers and workers to serving consumers is supported by most of the case studies. Lewis claims that the production mindset ignores the fact that "production and work are a means to consumption" (p. 299). This is not just a key lesson for developing countries. In Europe, where the trade-off between growth and social cohesion is too often seen as unavoidable, actions that favor the consumer might in fact be the most effective way to do away with this trade-off in the longer run. Intense and fair competition is the key to unlock the potential for growth.

Compared to the study discussed above, *Transforming the European Economy* is narrower in geographic coverage, mainly focusing on a comparison of Europe (and European Union member states) with the United States. But in terms of analytical coverage the scope of the latter book is broader as B&K pay much more attention to the labour market and the role of macroeconomic policy. As mentioned above, B&K make extensive use of the industry studies by MGI, but in addition they refer to the work on economic growth by the OECD and various academic researchers.

The first chapter of the book provides an overview of the main points. The bottom line for the authors is that Europe is coming to terms with the changes in the world economy and its role therein, but that the adjustment process to higher productivity and employment growth is impeded by a muddle of social and economic policies (this was also Lewis' main point on Europe) and a lack of determination to push through the most needed policy changes.

In chapter two, the authors give a general overview of postwar European performance and the growth slowdown since the mid-1970s, including a thorough discussion of data issues. They also develop a neat demand/supply labour model that points to the risk of social security systems, when too generously financed by taxes on wages, creating a decline in employment that can potentially spiral out of control.

Chapter three focuses on productivity, starting with a macroeconomic analysis of the contribution of ICT to productivity growth followed by a review of industry studies, including the MGI studies. Like Lewis, B&K seem to lean towards supporting a leading role for greater intensity of competition as a driver of faster productivity growth. But, more than Lewis, they highlight the abrupt productivity growth acceleration since 1995 and stress the long time lags by which competition affects productivity. Indeed in general, compared to Lewis, B&K emphasize much more the time dimension as an important factor for understanding productivity growth. This increases our understanding as to why differences in productivity growth between Europe and the United States have arisen since 1995 and what trajectory is required to turn the tide in Europe.

Chapter four on the productivity experience of the United Kingdom deserves particular attention, as it is important for the international comparative perspective of this review. Unfortunately, this long-time Achilles heel of the productivity story in Western Europe was not explicitly discussed by Lewis (although there is a separate MGI study on the United Kingdom), even though it provides a test case for the effects of reforms on productivity for a country other than the United States. UK labour and product market reforms started earlier than elsewhere in Western Europe, but productivity levels and growth have remained relatively low compared to the United States as well as to several Western European countries. According to B&K, the answer to this puzzle has various dimensions. First, there is again the time dimension, both in terms of the legacy of slow growth during the early postwar period as well as the lag between reforms and productivity growth. Second, there clearly is no linear relationship between regulation and productivity, either from an empirical or theoretical perspective. Third, in contrast to the general claim of Lewis that capital intensity does not matter, the UK case clearly shows that low capital intensity has been an important problem. This may be related to lack of incentives to invest in new capital due to an unfavourable climate for innovation. Fourth, the role of education in productivity growth is discussed. Somewhat grudgingly, the authors admit that education did matter in the United Kingdom as the country has fallen between two stools, one being a system (as in the United States) with a relatively large unskilled labour force that can still be productively employed because of competent managers and innovative business models, and another (as in Germany) that is based on a strong system of intermediate vocational qualifications, producing high-value-added goods such as luxury cars and specialized machine tools. Still, UK productivity performance is improving, and in terms of growth it is now among the better performers in Europe. For other European countries, there is much to learn from this country, both in terms of successes as well as failures. Most importantly, reform takes time and requires both a consistent policy framework which is pursued on a continuous basis and a change in mindset towards the benefits of growth – which is where the two studies reviewed here come together.

In contrast to the Lewis book, B&K pay much more attention to the labour market and to the macroeconomic environment. Chapters five and six therefore clearly move in another direction than the Lewis study. Chapter five on labour market issues discusses the important link between the reforms of health care, pension systems and labour market issues including taxes on labour, unemployment benefits, and disability schemes. The general tone of the chapter is to criticize the existing system in many European countries that has the insiders pay for the outsiders compared to one that provides incentives for the outsiders to move back into the labour market, and supports working people (for example, married women and older people) to stay in work for longer. The chapter provides three very useful case studies on Denmark, the Netherlands and Sweden, showing that one does not always need to look at the United States to learn from the successes of labour market reforms.

Chapter six looks at the macroeconomic environment, and focuses in particular on the only partially successful contributions of the Economic Growth and Stability Pact and the European Central Bank to the facilitation of structural change in Europe. B&K argue that both institutions need more flexibility given the great diversity among European member states. They note that, with the ongoing progress in microeconomic reform, macroeconomic management should be more focused on growth-promoting measures through expansionary monetary and fiscal policies and should supplement inflation targets with growth targets.

In the seventh and final chapter, B&K review European competition policy, making the case for a more aggressive approach towards anti-trust policy from the Commission and – at the same time – more proactive policies from member states. The illustration of experiences from four major member states (France, Germany, Italy and the United Kingdom) shows that changes are underway. But it does not make one hopeful that policy reform will move quickly. Strikingly, many countries seem to reinvent the wheel and do not learn from one another's mistakes and successes.

It is interesting that in the latter three chapters B&K clearly depart from the study by Lewis, who basically ruled out labour market and macroeconomic policies as having much relevance and being too superficial to address the microeconomic problems related to product markets. B&K stress the complementarity of macroeconomic and microeconomic policies. In fact they do not believe in a silver bullet. Their policy recommendations are summarized in three main priorities for productivity and three for employment. For productivity, the authors put a surprisingly high emphasis on the need to reform land use regulations, which particularly affect consumer services (such as retail trade). Second, they argue that even European manufacturing is still facing trade barriers relative to the rest of the world. Third – and quite timely – they make a strong case for service liberalization across the European Union. For employment, their first policy priority is to reduce legal and financial barriers for companies to restructure, hire and fire. Second, they believe social policies need to be reformed, with a greater emphasis on incentives to increase labour force participation. Third, they argue that social cohesion is best fostered by the creation of jobs, not by the compression of wage differentials.

Most Europeans have likely heard these policy proposals before, and they may not want to hear them again, or think them politically unrealistic. Both the recent changes in the Stability and Growth Pact and the issue of keeping a workable version of the Services Directive on the table highlight the great difficulties the European Union faces to push ahead its agenda for change. This book deserves to be carefully read by both those who think Europe should slow down the pace of change to maintain social cohesion as well as by those who think reforms should be introduced more quickly. It is incredibly rich in detail and provides many interesting lessons, which are not just based on the U.S. experience.

B&K are willing to address politically sensitive issues such as making a case for longer working hours in Europe. Even though they cautiously underline that the European choice for fewer hours may be voluntary (and may even be a rational choice of a superior lifestyle to that of Americans), they stress on the other hand that the incentive to work fewer hours may be a result of certain government policies. They also criticize some of the egalitarian policies of European governments which can have other perverse effects. For example, according to the authors the choice to heavily finance public schooling through grants may not only be inefficient, but may also drive inequality, as low-income tax payers pay to a large extent for the education of the rich.

Whether there is a silver bullet or a need for a more comprehensive package of measures that is needed to make change work, both studies are surprisingly unanimous in rejecting two areas for policy where many (not only in Europe) think more intervention is needed. The first is innovation policies. The European Lisbon agenda, which aims to make Europe the most competitive knowledge-based economy in the world by 2010, is hardly mentioned. As part of this strategy, rightly or wrongly, European governments aim to raise R&D intensity to 3 per cent of GDP by 2010. Yet I did not spot the term "knowledge economy" (except for a reference to the Lisbon agenda itself) in either book. Both studies emphasize the role of productive *use* of new technology, for which R&D is not necessarily the right vehicle – particularly not in services. Presumably the authors assume that the market will sort out which countries develop comparative advantages in particular areas.

But the simple worry of many policymakers and analysts is that when leaving it to the market, the result may be a "race to the bottom" with employment creation only in industries with slow productivity growth. The more complex concern is that there is evidence of huge market failures in technology creation which would legitimate certain types of government intervention. Indeed, all governments intervene more or less heavily to support the business sector in creating new technology. This support may take the form of R&D subsidy policies, support for public-private partnerships, or even targeted support for development of new technologies by particular firms. B&K argue that the European emphasis on technology policy is partly a heritage from its catch-up phase during the first three decades after World War II, even suggesting this might have been one of the causes of sclerosis (propping up old technologies and state-owned or -supported monopolies) since the mid-1970s.

It would also have been useful to learn more about the lessons (positive and negative) in the field of technology policy from the United States. The U.S. government has also given strong support to business for the development of defense-related technologies, which included the development of ICT, and more recently for technologies related to security. The United States has also gone much further than other countries in putting in place a very extensive patenting system. It is not at all clear whether this system has actually fostered technology creation, rather than limiting competition. Both books are silent on these issues. Should we take it for granted that the United States will continue to be the world technology leader in the coming decades? What should the rest of the world do to compete in these areas?

Both books also give inadequate attention to the internal process of innovation in the firm, including managerial innovation. B&K address the issue briefly, arguing that ICT investment requires complementary organizational and business innovation. Much of the investment process in intangibles is not market activity but rather is internal to the firm. So can we really blame insufficient productive use of ICT only on markets? One would also have expected more trenchant analysis on how business innovations relate to productivity from a consultancy such as McKinsey.

The second controversial view expressed by both studies is that education is not a serious problem. B&K argue that the overall level of skills in Europe is relatively good and that, with the exception of the United Kingdom and some less developed economies in Europe, there is no problem in funding the education system. If anything, they argue that there might be a case for improving the allocation and management of education expenditures. Lewis goes much further by claiming that the call for education to support productivity growth is much overdone, and that there is ample evidence that education has not contributed much to productivity growth, even in developing countries. According to Lewis, the focus should be on on-the-job training. Lewis substantiates his point by claiming evidence that illiterate Mexican workers on a Houston, Texas construction site were three times more productive than their similarly illiterate Brazilian colleagues on a similar project in São Paulo. According to Lewis: "With this evidence, I never doubted again that workers around the world have a distribution of capabilities similar enough to allow companies to train them in best practice methods" (p. 153) Indeed, the evidence of positive externalities from general education on growth, directly measured, is thin. But how on-the-job training exactly works and whether it works as easily with illiterates as with people that have at least primary school and some experience – or for that sake some basic skills in communication and work discipline – is not sorted out.

Clearly, education is conditional on a number of factors before it becomes a contributor to growth. Recent work has suggested an important role for complementary formation of social capital and the integration of educated people in an innovation system wherein schools, knowledge institutes and the private sector tie their resources together in a productive environment. But Lewis turns the tables on this argument by claiming that the most important role for education is to train people to be sophisticated consumers rather than producers: "Education is the organized system for helping the members of a society to understand themselves and the world in which they live" (p. 307). To be sure, education has a role in changing societal and consumer behaviour. But how can we disentangle the contribution of education to productivity growth from that of other factors, and does it help us any further? The real question is perhaps a counterfactual one: is there any evidence that advanced countries overinvested in education, and that developing countries would do better spending their limited resources elsewhere? In my view, there is not much evidence that would lead to a positive answer to these fundamental questions. I certainly could not find it in these two studies.

Despite these reservations, I believe that the *Power of Productivity* and *Transforming the European Economy* will be seen as two of the major contributions to the debate on productivity and growth. These studies contribute to our understanding of what drives productivity growth and productivity differences between countries. More importantly perhaps, they help us better understand why, now that the number of countries taking part in globalization is greater than ever before, so many of them are eager to introduce reforms in order to raise productivity as the key source of sustainable long-term growth. Clearly, there is no single silver bullet, not even the emphasis on consumer interests and on market reforms. But this part of the puzzle is uncovered and so well documented that it can no longer be shuffled under the table as "a typical American view". The experiences are just too diverse and widespread across the world to pursue that line of argument any longer. And that's a real contribution to the productivity debate.