

Editor's Overview

This sixth issue of the *International Productivity Monitor* produced by the Centre for the Study of Living Standards contains seven articles. Topics covered are lessons for Canada from the U.S. growth resurgence; factors explaining higher productivity levels in the United States than in Canada; patterns in annual work hours per capita in Canada and the United States; trend productivity growth in Canada; the contribution of ICT-producing and ICT-using industries to productivity growth in Canada, the United States and Europe; data sources for international productivity comparisons; and a review article on the volume *Towards a Social Understanding of Productivity*.

Readers are reminded that in addition to the hard-copy version of the *Monitor* available in English and French, all articles are available online at www.csls.ca under Publications. Unabridged versions of many of the articles are also posted. Comments on the articles are welcome.

The economic development in the 1990s which probably has had the most important long-term consequences was the acceleration of productivity growth in the United States after 1995. In the first paper, **Dale W. Jorgenson** of Harvard University, **Mun S. Ho** from Resources for the Future, and **Kevin J. Stiroh** of the Federal Reserve Bank of New York provide a detailed account of this growth resurgence in the United States, reflecting both an productivity acceleration and greater hours worked, project U.S. output growth, and comment on lessons for Canada. They conclude that the U.S. productivity revival is likely to remain intact for the intermediate future. They point out that information technology investment reflects the overall momentum of the economy, and that there is no implication from the U.S. experience that Canadian firms have invested too little in this area.

Historically, per capita income in the United States has exceeded that in Canada and this difference has reflected higher labour productivity levels south of the 49th parallel. In the second paper, **Andrew Sharpe** of the Centre for the Study of Living Standards, provides estimates of

the size of the gap in aggregate labour productivity between the United States and Canada and discusses possible explanation of the gap. He points out that based on average weekly hours estimates from the U.S. household survey, total economy output per hour in Canada in 2002 was 89 per cent of the U.S. level, compared to 81 per cent using estimates from the establishment survey. Sharpe concludes that the Canada-U.S. aggregate labour productivity gap reflects Canada's lower capital intensity of production, an innovation gap manifested by lower R&D expenditure, a smaller and less dynamic high tech sector, less developed human capital at the top end of the labour market, and more limited economies of scale and scope.

In addition to productivity levels, living standards, as measured by GDP per capita, are determined by both average hours worked per person employed and the share of employment in the total population. In the third paper, **Pierre Fortin** from the University of Quebec at Montreal examines differences in annual work hours on a per capita basis between the United States and Canada. He finds that in 2001 average hours worked was lower in Canada (91 per cent of the U.S. level), while the employment/total population ratio was actually higher (103 per cent of the U.S. level). With output per hour in Canada 90 per cent of the U.S. level, the overall effect of these three variables was to produce a

level of GDP per capita in Canada that was 85 per cent of the U.S. level. He also finds that Ontario in 2001 enjoyed a higher level of GDP per capita than Quebec (86 per cent versus 77 per cent of the U.S. level) because of its greater average hours worked and higher employment/total population ratio, offset by a slightly lower productivity level.

Trend productivity growth is a crucial determinant of future living standards as well as the sustainability of social programs. In the fourth article, **Benoît Robidoux** and **Bing-Sun Wong** from Finance Canada examine whether trend productivity growth has increased in Canada and conclude that in fact it has. If correct, this is a very positive development for Canadians. They point out that business sector output per hour growth in Canada accelerated 0.9 percentage points from 1.1 per cent per year in the 1988-1996 period to 2.0 per cent in 1996-2001, virtually the same acceleration as in the United States. The authors find that Canada experienced a greater pick-up in total factor productivity growth than the United States. Increased production and use of information and communications technologies (ICTs) accounted for more of the U.S. productivity growth acceleration.

Both ICT-producing and ICT-using industries have contributed disproportionately to labour productivity growth in the 1990s. In the fifth article, **Bart van Ark**, **Robert Inklaar** from the University of Groningen and **Robert H. McGuckin** of the U.S. Conference Board compare Canada, the United States and Europe in terms of the contribution of ICT-producing and ICT-using industries to productivity growth. In the 1995-2000 period, the contribution of ICT-producing industries to labour productivity growth was similar in Canada and the Europe,

but only half that in the United State. In terms of the contribution of ICT-using industries, Canada was in an intermediate position between Europe and the United States. The authors offer as a possible explanation for this latter situation Canada's equally intermediate position between the relative strict labour and product market regulation in Europe and more lax environment in the United States.

In recent years, a number of international data bases on productivity have become publicly available. In the sixth article, **Jeremy Smith** from Queen's University provides an overview of sources of information on international productivity comparisons for developed countries. Smith first reviews a number of methodological issues associated with international productivity comparisons and then discusses what is available from the OECD, the U.S. Bureau of Labor Statistics, the Groningen Growth and Development Centre in the Netherlands, and other sources. He concludes by noting that the data provide no one single truth on international productivity growth rates and levels, but rather a range of estimates because of data comparability issues.

Productivity is not just an important concept for economists, but for other social scientists as well. The seventh and final article by **Jeff Matrick**, Editor of *Challenge* and economics columnist for the *New York Times*, is a review of the recently published edited volume *Towards a Social Understanding of Productivity*. Madrick notes that the volume reinforces the conventional view that productivity is essential for a rising standard of living and at the same time adds considerably to a fuller understanding of how social factors affect economic growth and how economic growth is linked to social improvement.