

Editor's Overview

The fifth issue of the *International Productivity Monitor* published by the Centre for the Study of Living Standards contains six articles. Topics covered are: the Canada-US manufacturing productivity gap; trends in Canadian living standards; the impact of economic reform on British productivity growth; productivity and policy reform in Australia; the measurement of government productivity; and a review of a recent volume, *Productivity Issues in Canada*.

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. Unabridged versions of certain of the articles are also posted. Comments on articles are welcome.

Since 1994, labour productivity growth in manufacturing in the United States has greatly exceeded that recorded in Canada. Output per hour in Canada fell 20 percentage points from 87 per cent of the US level in 1994 to 67 per cent in 2001. This development has been responsible for most of the widening of the aggregate Canada-US labour productivity gap. In the lead article, **Jeffrey I. Bernstein** of Carleton University, **Richard G. Harris** from Simon Fraser University, and **Andrew Sharpe** from the Centre for the Study of Living Standards provide a comprehensive analysis of the widening of the Canada-US manufacturing productivity gap.

The authors find that the growth in the gap largely reflects the acceleration of productivity growth in the US high-tech manufacturing sector. The Canadian high-tech sector is smaller than its US counterpart and experienced much weaker productivity growth. It is estimated that these two factors themselves account for 70 per cent of the widening of the gap over the 1994-2000 period. Faster growth in capital intensity of production in the United States also played a complementary role in the growth of the gap, a development fostered in part by the greater increase in the price of labour in the United States than in Canada.

Living standards in Canada, defined as real GDP per capita, declined relative to those in the United States in the 1990s. A key challenge facing Canadians is the reversal of this situation. In the second article, **Andrew Sharpe** of the Centre for the Study of Living Standards develops a framework for the analysis of living standards and outlines a strategy to raise living standards.

Sharpe first examines trends in and determinants of living standards in Canada. He finds that over the 1946-2001 period productivity growth accounted for all the growth in living standards. Sharpe notes that living standards could be increased by lower unemployment, greater labour force participation, and longer working time, but points out that there is little scope for long-term improvement from these sources. Rather, he argues, productivity growth represents the only sustained avenue for living standards growth. With a level of aggregate labour productivity 18 per cent below the US level, Canada has the potential to reduce much of the productivity gap with the United States and possibly even to eliminate it completely. Such a development would allow Canadians to achieve US levels of real GDP per capita, or if they so chose, to take the productivity gains in the form of increased leisure.

The UK economy has undergone significant market reforms over the last two decades. A key question for productivity researchers is the impact of these reforms on productivity growth. In the third article, **Richard B. Freeman** of the

London School of Economics, Harvard University and the NBER and **David Card** of the University of California at Berkeley and the NBER examine trends in productivity growth in Britain and other major developed countries and estimate the impact of British economic reforms on British performance.

They conclude that reforms in the area of union-management relations, privatization, profit and share ownership, and self-employment increased UK productivity growth 0.35 per cent per year over the 1979-1999 period, accounting for one quarter of the pick-up in productivity between the 1960-1979 and 1979-1999 periods.

Australia has enjoyed strong productivity gains in the 1990s. In the fourth article, **Dean Parham** of the Australian Productivity Commission provides an overview of Australian economic performance and the policy reforms that turned around Australia's laggard productivity growth. He first points out that during the first half of the 20th century Australia enjoyed one of the highest levels of labour productivity in the world. But Australia never experienced productivity convergence in the postwar period up to the 1990 and saw its productivity and GDP per capita ranking decline over this period. Productivity growth then picked up in the 1990s, with output per hour advancing 2.3 per cent per year in 1990-2001 compared to 1.5 per cent in 1973-1990.

Parham makes the case that policy reforms explain much of Australia's improved productivity performance. He identifies three broad areas of policy reform as particularly important in fostering productivity growth: sharper competition; greater openness to trade, investment and technology; and greater flexibility for businesses to adjust production and distribution processes. These reforms spurred the Australian economy to to embark upon a much delayed productivity catch-up.

The measurement of government productivity poses a challenge for economists. The lack of a marketed output and the multidimensional nature of objectives for government agencies in particular make the measurement of productivity in government more difficult than in the business sector. The fifth article by **Andrew Hughes** of the New South Wales Treasury in Australia provides a guide to the issue of productivity measurement in government.

Hughes provides a non-technical overview of the different quantitative techniques that can be used to gauge government performance, including index number techniques such as partial factor productivity and total factor productivity; statistical techniques such as ordinary least squares and stochastic frontier analysis; and mathematical techniques such as data development analysis. He gives a number of examples to illustrate the use of these techniques. Hughes concludes that general government agencies have much to gain from the application of quantitative techniques to the measurement of their economic performance.

The sixth and final article, by **Ian A. Stewart**, is a review article on the recently released Industry Canada research volume *Productivity Issues in Canada*, edited by Someshwar Rao and Andrew Sharpe. Stewart begins by noting that at over 900 pages and 25 papers the volume represents an important contribution to productivity literature in Canada. He points out that data and measurement issues represent a central theme in the volume. Stewart also comments on what he sees as the diminishing importance of the macroeconomic perspective in the analysis of productivity growth. He believes that the golden age of productivity growth during the 1945-1973 period was in large part due to the solid macroeconomic performance of the period.