

Editor's Overview

THIS MARKS THE 20th issue of the *International Productivity Monitor* (IPM). The Centre for the Study of Living Standards would like to thank Industry Canada for the financial support that has made the publication of the IPM possible over the past decade.

This issue contains five articles on: the impact of the economic crisis on potential output and productivity growth in Canada; the sensitivity of estimates of Canada-U.S. capital intensity and multifactor productivity gaps to depreciation assumptions; a sectoral and provincial decomposition of Canada's post-2000 labour productivity slowdown; the role of creative destruction in Finnish productivity performance; and the influence of public policy on manufacturing productivity growth in India.

Potential output growth is determined by three factors: labour force growth, growth of capital services, and multifactor or total productivity growth. In the first article, **Marcello Estevão** and **Evrídiki Tsounta** from the International Monetary Fund investigate the impact of the financial crisis on potential output growth in Canada. They find that potential growth fell 1.1 percentage points from an average annual rate of 2.6 per cent in 2005-2008 to 1.5 per cent in 2009 because of the large fall in investment, and hence capital services, caused by the recession. By 2015, potential growth is projected to return to 2.0 per cent, still below the pre-crisis growth rate, largely because of slower labour force growth due primarily to the aging of the population. Total factor productivity growth has been relatively unaffected by the crisis as it remains in the 0.3-0.4 per cent per year range throughout the 2005-2015 period.

It is conventional wisdom that Canada's lower labour productivity level relative to the United States reflects both lower levels of capital intensity and lower levels of multifactor productivity. In the second article, **Jianmin Tang** and **Someshwar Rao** of Industry Canada and **Min Li** from Statistics

Canada challenge this conventional wisdom and report that lower multifactor productivity accounts for all the gap. The standard results arise from use of the official depreciation rates in the calculation of the capital stock estimates. The depreciation rates used by Statistics Canada for the Canadian capital stock estimates are higher than those used by the Bureau of Economic Analysis for the U.S. estimates, especially for structures. When the same depreciation rates are used to estimate the capital stock in the two countries (either the Canadian or the American rates), Canada's capital intensity relative to the United States increases significantly, exceeding the US level for total capital. It is important to note, however, that it is the doubling of Canada's relative capital intensity for structures that drives this result and, even with the same depreciation assumptions in the two countries, there still remain a large machinery and equipment and ICT capital intensity gap.

Canada's post-2000 labour productivity performance has justifiably been characterized as abysmal. Business sector output per hour has advanced at an average annual rate of only a 1.1 per cent between 2000 and 2007, compared to 3.2 per cent per year in 1997-2000. To develop policies to improve this situation, it is essential that the nature of this development be well understood. Working with Statistics Canada, the Centre for the Study of Living Standards (CSLS) has developed a large database that provides productivity estimates at the two and three digit NAICS level by province for the 1997-2007 period. In the third article, **Andrew Sharpe** and **Eric Thomson** from the CSLS exploit this database to identify contributions to the labour productivity growth slowdown between the 1997-

2000 and 2000-2007 periods by province and by industry. They find that manufacturing made the greatest contribution to the slowdown (53 per cent), followed by agriculture, forestry, fishing and hunting (15 per cent). From a provincial perspective, Ontario accounted for by far the largest share of the slowdown (62 per cent), followed by Quebec and British Columbia (both 12 per cent). The manufacturing sector in Ontario alone was responsible for approximately one third of the Canada-wide slowdown. Weaker demand growth for manufacturing products after 2000 resulted in much reduced manufacturing output growth, with a negative effect on labour productivity growth.

Finland has experienced robust productivity growth in recent years and is often put forward as a model for other countries to emulate. In the fourth article, **Mika Maliranta** from The Research Institute of the Finnish Economy (ETLA) and the Jyväskylä University School of Business and Economics and **Petri Rouvinen** and **Pekka Ylä-Anttila**, both from ETLA, make the case that Finland's success is due to an intensification of the creative destruction process whereby low productivity firms exit or die, high productivity firms enter or are born, and workers within a sector move from

low productivity to high productivity continuing firms. These productivity-enhancing dynamics have their roots in a number of public policies, including the opening up of the Finnish economy to market forces, both internally and externally, and strong public support for R&D and education.

After decades of relative stagnation, productivity growth in India's manufacturing sector has picked up considerably. In the fifth and final article of this issue, **Abhay Gupta** from MITACS provides an innovative explanation for the weak productivity growth experienced by this sector before the 1990s. He shows how the co-existence of the import permit quota system and labour market rigidities distorted the resource allocation process and resulted in the underutilization of materials relative to labour. The reform of this import licensing system in the 1990s removed this distortion and contributed to stronger labour productivity growth in a number of industries. The author also discusses how labour laws that make it difficult to dismiss workers continue to lead to less than optimal factor allocation decisions in Indian manufacturing, and result in an underutilization of labour despite a large pool of unskilled workers.