Editors' Overview

The 46th issue of the *International Productivity Monitor* contains five articles. The issue features a symposium of three articles on international productivity performance with a particular focus on the role of intangible capital. Two additional articles discuss the reasons for the recent fall in GDP per capita in Canada and the relationship between productivity and managerial quality.

The sources of growth in modern economies have drastically changed in recent decades. This is especially true for the composition of productive capital. Since the 1990s the investment share of intangibles capital, when broadly measured by including, for example, organizational capital, marketing and branding and business training, has outpaced that of tangible capital, especially in advanced economies. A new stream of research on intangibles and productivity has emerged pointing out the increased contribution of intangible capital to output and productivity growth relative to tangible capital.

This issue of the *International Productivity Monitor* features a symposium entitled International Productivity Growth: The Role of Intangibles. It contains three articles making use of a new and unique international dataset, EUKLEMS & INTANProd database which has merged the original EUKLEMS Growth and Productivity Accounts with a comprehensive range of data on intangible capital by industry. The 2023 release of the EUKLEMS & INTANProd database includes 30 countries with investment and capital metrics for seven tangible assets and eight intangible assets and growth contributions for 38 industries. It provides a version of accounts which is consistent with the official national accounts, and one that uses additional types of intangible assets, which of course affects the measures of capital, value added and productivity.

The three articles in the symposium analyze the new dataset through different lenses. The first article is by **Filippe Bontadini** , **Carol Corrado**, **Jonathan Haskel**, **Massimiliano Iommi**, **Cecilia Jona-Lasinio** and **Tsutomu Miyagawa**. They provide a comprehensive description and analysis of the data, sketching out a stylized "upstream/downstream" model of production with intangible capital, which is used to assess the performance of innovation, intangibles and productivity for Japan, the United Kingdom, the United States and a range of EU economies.

The second article by **Bart van Ark**, **Klaas de Vries**, and **Abdul Erumban** focuses on one specific question, namely whether intangibles may have contributed to the productivity slowdown in advanced countries since the Global Financial Crisis. The authors analyze a range of different metrics from the EUKLEMS-INTANProd database for the UK, and find a moderate slowdown in the growth of the intangible capital stock and a slightly weaker contribution to productivity growth since 2011. In contrast, the authors of the first article argue that, when using a somewhat shorter timeframe (2014-2019, avoiding the aftermath of the European sovereign debt cri-

sis) and adjusting for mismeasurement of prices for consumer digital services, green shoots of improvements in the performance of intangible capital can be observed.

The third article in the symposium, **John van Reenen** and **Xuyi Yang** uses the EUKLEMS-INTANProd database to analyse the slowdown in UK productivity growth, using France, Germany and the United States as the main comparator countries. The authors show that the extraordinary weakening in UK productivity growth since the Global Financial Crisis is mostly due to the comparatively large slowdown in the growth of capital intensity whereas the fall in TFP growth was broadly similar to other countries. They also find that roughly half of the Britain's gap in productivity level to other countries can be accounted for by lower tangible and intangible capital intensity. Their findings suggest that UK policy should focus on the problem of chronic underinvestment, which might be reversed by greater regulatory convergence to Europe following Brexit, a credible Growth Plan by the government, a better supply of finance for investment from pension funds, a strengthening of the creation of intermediate skills, and improvements in the land use planning system.

In sum, the three papers set out a large academic and policy-focused research agenda for the role of investment and capital for economic growth and productivity.

Real GDP per capita has fallen since mid-2022 in Canada, a situation normally experienced only during recessions. But real output growth was positive in both 2022 and 2023. In the fourth article in the issue, Philip Smith, formerly a senior official at Statistics Canada, addresses this paradoxical situation through a detailed decomposition of GDP per capita into six components.

The author identifies the very large increase in 2022 and 2023 in the non-permanent resident (NPR) population, driven by increases in the number of temporary foreign workers and international students as the key factor behind the fall in real GDP per capita. This development disincentivized business investment, reducing labour productivity growth. The low wages and productivity levels of NPRs also impeded aggregate productivity and income growth.

It is widely recognized that managerial quality is a key determinant of firm performance including productivity growth in the medium and long term. But the importance of managerial quality in the short term is less well documented. In the fifth and final article in the issue, **Gilbert Cette**, **Jimmy Lopez**, **Jacques Mairesse** and **Giuseppe Nicoletti** contribute to this gap in the literature by showing that during the Great Recession countries with better managed firms experienced smaller employment and output losses which preserved productivity levels.

The authors use a projection method to estimate the impact of shocks on post-2009 macro development at different levels of managerial quality in a country-industry panel for 2007-2015 for 18 industries in 10 OECD countries. Both output and employment are resilient when managerial quality is higher.