## Editor's Overview

The 38th issue of the *International Productivity Monitor* contains seven articles. The topics are the impact of trust on productivity; the relationship between zombie firms, exit barriers and productivity; a three-article symposium on the sources of the Transatlantic productivity slowdown; the World Bank perspective on productivity; and productivity measurement in higher education.

Total factor productivity has famously been called a "measure of our ignorance." The concept of social capital has been used to explain TFP, especially TFP differences across countries. The most widely used measure of social capital is trust. In the lead article, Conal Smith from Victoria University of Wellington provides a thorough review of the literature on the relationship between trust and TFP and develops new estimates of the impact of trust on TFP. He finds that controlling for trust can have significant effects on TFP. For example, in hightrust New Zealand, moving to the average trust level reduces TFP 6 percentage points from 87 per cent of the US TFP level in 2016 to 81 per cent.

Increased misallocation of resources has been suggested as an explanation for slower productivity growth since 2000. One manifestation of this misallocation is the rise of zombie firms, defined as firms in financial distress. In the second article, Christian Osterhold and Ana Fontoura Gouveia from the Nova School of Business and Economics use firm-level data for Portugal to examine the impact of the presence of zombie firms on the country's productivity performance. High barriers to exit and restructuring contribute to the growth of zombie firms, with negative effects on productivity. According to the OECD indicator on insolvency regimes, Portugal experienced a large fall in this indicator in recent years, resulting in shorter delays in the initiation of insolvency or restructuring processes. This had the effect on promoting the restructuring of the most productive zombies and the exit of the least productive, boosting productivity through a more efficient allocation of resources.

The ICT revolution is more an American than a European phenomenon. In the third article in the issue, Robert J. Gordon from Northwestern University and Hassan Saved from Princeton University examine the role of ICT in explaining productivity growth in the United States and an aggregate of ten EU countries since the 1970s. They show that most of the 1995-2005 US productivity revival was driven by ICT-intensive industries. The paucity of these industries in Europe meant that this region did not enjoy a productivity revival. After 2005, both regions experienced slower productivity growth, suggesting that the benefits of the ICT revolution were shortlived and have not ushered in a new longterm era of faster productivity growth.

The United States is still the world's overall productivity leader, with higher levels of labour productivity than other major economies. In the fourth article, Martin Neil Baily, Barry P. Bosworth and Siddhi Doshi from the

Brookings Institution provide evidence of this reality by examining US productivity performance compared to that of the second and third largest developed economies, Germany and Japan. The authors show that both Japan and Germany were catching up to the US productivity level up to the mid-1990s, with Germany actually overtaking the United States for a brief period. But the acceleration of US productivity growth after 1995, driven by the ICT revolution, reaffirmed the country's role of productivity leader and saw the gap between the United States and Germany and Japan widen.

Productivity growth is affected by both cyclical developments associated with aggregate demand and structural factors such as the underlying pace of technical advance affecting aggregate supply. Determining the relative importance of these factors has always been a challenge for productivity researchers. Inthe fifth article, John Fernald from IN-SEAD and the Federal Reserve Bank of San Francisco and Robert Inklaar from the University of Groningen examine the factors behind the slow pace of productivity growth in Europe. They note that TFP growth slowed before the Global Financial Crisis in 2008-09, suggesting the productivity slowdown has structural as opposed to cyclical roots. On the other hand, they recognize that a strong downturn in the economy can depress productivity growth through a number of channels, including reduced investment, less R&D and labour force hysteresis. But by the second half of the 2010s, they argue that many of these cyclical factors had

played themselves out.

A necessary condition for the reduction of global poverty is productivity growth. Given that the World Bank's mandate is poverty reduction, the institution has a strong interest in the productivity issue. In the sixth article, **Don Drummond** from Queen's University and the Centre for the Study of Living Standards provides a critical assessment of the World Bank publication *Productivity Revisited:* Shifting Paradigms in Analysis and Policy. The book uses firm-level data to disaggregate productivity growth into gains within firms, across firms through resource reallocation and through market entry and exit. The analysis is consistent with the World Bank's traditional policy prescriptions related to the creation of favourable business conditions, reduction of distortions, and improvements in human capital to foster productivity growth.

Higher education has been traditionally considered one of the sectors where productivity is "difficult to measure." In the seventh article, Mary O'Mahony from King's College London reviews the NBER volume Productivity in Higher Education from the perspective of the accountability agenda in higher education. This agenda requires credible and robust measures of performance including productivity measures. The contributors to the volume admirably show that many insights into productivity in higher education can be obtained through the careful use of administrative data, state of the art methodologies, and sound economic reasoning.

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