Editorial

Friedrich Heinemann and Gunther Schnabl*

Editorial: Productivity Growth in the Age of AI

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The second half of the year 2024 has been characterized by persistent geopolitical tensions and further growing economic policy interventions. On a national level subsidies continued to grow, on an international level export subsidies and tariffs have led to increasingly uncooperative stances in economic policy making. Hopes for a soft landing in the United States and a sustained recovery in Europe and in Japan were nurtured by euphoria on the stock markets concerning the potential of productivity increases by artificial intelligence (AI). Particularly, AI has become widely regarded to be able to trigger a productivity revolution in the service sector.

The policy papers in the October 2024 Issue of The Economists Voice deal with the implementation and effects of monetary, energy and climate policies, extending to aspects of global currency competition and academic freedom. The policy forum on "*Productivity Growth in the Age of AI*" provides an innovative and profound discussion about the impact of AI on different realms of the economy and the society, including working habits, economic order, asset management and regulation. It sets the stage for a better understanding of the positive and negative effects of AI on sectoral and aggregate productivity on a national and global level.

Clémence Briodeau (ENSAE Paris) and Cristina Checherita-Westphal (ECB) provide disappointing evidence for those who believe that inflation could be an easy way out of high public debt. For the euro area, their analysis "*Inflation and Fiscal Policy: Is There a Threshold Effect in the Fiscal Reaction Function?*" shows that even the short-run impact of inflation on the primary budget balance is negative above moderate inflation thresholds. This deterioration in the budgetary position in an inflationary environment is driven by both the expenditure and the revenue channel. Above critical inflation thresholds in the range of four to six per cent, both increasing expenditure pressures and the negative impact of higher macroeconomic uncertainty on revenues lead to a deterioration in the budget.

***Corresponding author: Gunther Schnabl**, Flossbach von Storch Research Institute, Cologne, Germany, E-mail: gunther.schnabl@fvsag.com
Friedrich Heinemann, ZEW – Leibniz Centre for European Economic Research, Mannheim, Germany

Ryan Banerjee, Sebastian Doerr and Boris Hofmann (all Bank for International Settlements) document in their paper "*Whither the Walking Dead? The Consequences of Artificial Intelligence for Zombie Firms*" that the share of zombie firms in advanced economies has risen considerably over the past three decades. The authors show that this increase has come along with a significant drag on aggregate productivity growth in industrialized countries. They argue that AI-induced productivity may mitigate corporate zombification by improving firm performance and therefore may counteract the drag on growth resulting from zombie firms. By leading to higher interest rates that force zombie firms to exit markets, AI may boost productivity further in the longer run.

Alberto Americo, Jesse Johal and Christian Upper (all Bank for International Settlements) ask how three different groups of countries will be affected by the energy transition. In their paper, "*The Energy Transition and Its Macroeconomic Effects*", they identify the group of fossil fuel exporters as the most vulnerable. This group will come under pressure from the erosion of fossil fuel exports. On the other hand, metals and minerals suppliers will be the big beneficiaries of the energy transition due to the high demand for their resources. An interesting and somewhat surprising finding is that today's fossil fuel importers will be among the winners of the energy transition in the long run, as they have the chance to overcome their costly dependence on fossil fuel imports by switching to domestic renewable energy production. However, this effect is weaker for countries with limited renewable energy production potential.

Ruben Hillebrandt (University of Heidelberg) takes an in-depth look at the potential of the Carbon Border Adjustment Mechanism (CBAM) as a new instrument for financing the EU budget. Based on a thorough examination of the emerging European CBAM design, his article "*The Potential and Distributional Effects of CBAM Revenues as New EU Own Resource*" presents scenarios for potential revenues in the short, medium and long term. Due to the reduction of free emission allowances and the expectation of a rising CO2 price in the EU emissions trading system, revenues can be expected to increase to an annual level of EUR 14 billion, with limited distribution effects among EU member states. However, the author warns against using these revenues for purposes other than climate policy.

John Martin T. Ryan (ifo Institute) explores in his paper "*Will Geopolitics Accelerate China's Drive Towards De-Dollarization?*" the dynamics of global currency competition. He argues that the war between Russia and Ukraine together with the growing rivalry between the United States and China may have a lasting impact on the global monetary system. As China has been casting its political and economic capital into strategic alliances, this could lead into a new currency regime beyond the US dollar. The question was whether it is still a question of if de-dollarisation is happening or rather how fast.

A further recent development has been a growing discussion concerning the academic freedom which has increasingly come under attack with the tendency towards authoritarian governments. Christian Bjørnskov (University of Aarhus) provides a very useful literature survey on causes and consequences of academic freedom. The literature survey in "*The Political Economy of Academic Freedom*" shows that academic freedom contributes to better research, innovation and productivity growth. In his view the literature suggests that democracy and multi-party politics contribute to more academic freedom. Declines in academic freedom may contribute to autocratisation.

The policy forum focusses on Productivity Growth in the Age of AI. In her contribution "*Macroeconomic Productivity Effects of Artificial Intelligence*", Marianne Saam (ZBW Hamburg) sides with those who caution against overly optimistic expectations about the productivity potential of AI. The article calls for more precision in important distinctions, such as between firms' use of AI and their exposure to AI. Uncertainty about the productivity impact is high. However, given the modest AI-related growth expectations for the leading US, it seems unlikely that this new technological revolution will significantly boost European growth. Much will depend on how well the new technology is adapted to value-creating tasks.

Emilie Rademakers and Ulrich Zierahn-Weilage (both Utrecht University) analyze in their paper „*New Technologies: End of Work or Structural Change?*" the impact of new technologies such as automation and AI on labor markets. They identify ambiguous and only limited overall employment effects, while new technologies are found to induce significant shifts in workforce composition. AI adoption is seen to remain limited, but to continue to reshape skill demands on labor markets, with a negative impact on inequality. Henning Vöpel (Centre for European Policy Network) analyses "*The AI Revolution: A New Paradigm of Economic Order*" the consequences of AI on the distribution of income, firms, markets, and competition. He argues that AI is creating a new economic order that requires new approaches to economic policy and regulation including the questions of how to maintain competition, how to protect consumer rights and how to preserve ethical standards.

Katharina Hölzle, Robert Rose and Verena Lisa Kaschub (all IAT University of Stuttgart) argue that the integration of AI in the workplace is at a nascent stage, presenting both substantial opportunities and challenges for productivity growth. In "*The Interplay of Humans, Technology, and Organizations in Realizing AI's Productivity Promise*" they regard AI's potential only be truly realized through strategic investments in human skills and comprehensive organizational redesign. They recommend creating a human-centered environment conducive to AI-driven productivity gains through its assistance, augmentation, and automation capabilities. *"How Can Artificial Intelligence Transform Asset Management?*" is explored by Philipp Immenkötter (Flossbach von Storch Research Institute). He examines the

transformative potential of AI in asset management with respect to research, decision-making, communication, and trading processes. AI could significantly reduce analysts' time on data collection and analysis as well as offer standardized recommendations, but risks include a lack of transparency in AI-driven decisions.

Two articles assess the EU AI Act. Zach Meyers' (Center for European Reform) article "*Is the EU's AI Act Merely a Distraction from Europe's Productivity Problem*?" answers the title question in the affirmative. The author argues that the EU may be setting the wrong priorities in its strategy to make Europe an AI stronghold. Hopes that the EU's AI Act will create a single set of rules across Europe are unfounded, given the plethora of national AI-related regulations, which together increase bureaucracy and may dampen investment. The author criticizes the lack of attention to other, more crucial factors that are still holding back the use of new digital technologies in Europe. He identifies the lack of a capital markets union, limited market integration and a lack of digital skills as priority factors that need to be addressed to pave the way for a successful uptake of AI in the EU.

Irene Bertschek and Achim Wambach (both ZEW) start their contribution "*AI in Europe – Is Regulation the Answer to Being a Laggard?*" by noting that Europe is far behind US companies in the digital platform economy. This general digital advantage also puts the US in a much better position for the emerging competition for AI-based services. Similar to Zach Meyers, these authors are not convinced that the EU AI Act alone will change the environment for the better. Instead, they recommend better regulation that helps companies reduce their data protection compliance costs, thereby making it easier and faster to access data.