Preface

Since the mid-2000s, productivity growth has slowed markedly in almost all the advanced economies, by roughly the same order of magnitude. The decline was particularly spectacular in the United States, because it was preceded by a temporary boom in the decade before and no obvious precipitating event (since the slowdown clearly set in well before the global financial crisis). In other high-income economies, the decline has come on more slowly but has been steady, picking up speed in the aftermath of the global financial crisis. In the last few years, productivity growth appears to have stabilized at around 0.5 to 1 percent per annum at the technological frontier, in many cases half or less of its former rate of growth.

An enormous literature explores possible causes of the now evident productivity slowdown. It ranges from poor measurement to changes in the nature and effects of technological progress, to a sense that the low-hanging fruit from greater educational attainment rates have been picked, to explanations emphasizing declining business dynamism and the spill-overs from international trade rolling back. Far less research, however, has been done on the consequences for long-term economic policymaking of a productivity slowdown, should the slowdown persist. *Facing Up to Low Productivity Growth* addresses this gap, based on the contributions of 12 leading scholars, under the guidance of Peterson Institute for International Economics (PIIE) Senior Fellow Jeromin Zettelmeyer and myself.

A possible reason why there is so little research to date on the consequences of lower productivity growth may be that they appear obvious: Lower productivity growth means slower improvement of living standards than we have experienced in past decades and were counting on for the future. Economists then could straightforwardly update their forecast assumptions for their aggregate projections. This simple aggregate characterization misses significant implications for specific countries, sectors, and population groups, depending on a given economy's existing institutions. The productivity slowdown has not and will not be felt equally everywhere, even if the downshift in growth is relatively uniform across advanced economies.

Lower productivity growth will lead to a widening of productivity gaps along some dimensions (e.g., between leading and new firms) and to a narrowing along others (e.g., between some countries, depending upon their adaptability). These differential impacts will have meaningful consequences for the development of inequality, capital flows, and political economy. There are clearly some negative fiscal implications, but where and how much they bite are heavily dependent upon the nature of tax systems, the structure of pension and insurance frameworks, and their interaction with a country's demography. And to the extent that a lower long-term growth rate prolongs the current period of very low interest rates, it will have implications for financial stability and monetary policy, as well.

The contributions in this volume explore some of these policy-relevant and realistic consequences of lower productivity growth, which must be faced by policymakers. Neil Mehrotra (chapter 1) focuses on the impact of slower productivity growth on the ability of countries to pay off public debts. Elena Duggar (chapter 2) looks at the potential impacts on sovereign risk through several channels, including quasi-fiscal liabilities and financial stability. Karen Dynan (chapter 3) asks whether adapting to lower productivity growth requires changes in tax policy in the United States. Louise Sheiner (chapter 4) examines the impact via revenues and expenditures in the United States on its long-term fiscal commitments. Axel Börsch-Supan (chapter 5) explores the effects on pension systems around the world, and how their differences in provision influence the impact of the slowdown. José De Gregorio (chapter 6) examines the link between productivity growth in advanced and emerging-market countries, and the potentially substantial implications for cross-border capital flows. Filippo di Mauro, Bernardo Mottironi, Gianmarco Ottaviano, and Alessandro Zona-Mattioli (chapter 7) study the implications of a sustained slowdown in productivity growth for exports, including global supply chains, and the feedback on growth in trade and thus productivity itself. Anna Stansbury and Lawrence Summers (chapter 8) investigate the extent to which productivity continues to exert an influence on wages, and how this will affect wage trends in a low-inflation, low-growth environment. Jason Furman and Peter Orszag (chapter

9) look at the link between productivity growth, corporate competition, and inequality, especially in an age of increasing number of network and winner-takes-all industries. Finally, Daniel Drezner (chapter 10) explores the potential impact of lower productivity growth in the United States on its electoral politics.

Two main messages emerge from our research program. First, the effects of slower productivity growth will be largely negative, as expected, but not always in the ways and through the channels expected. For example, in most fiscal systems, revenues and most expenditures are indexed to average wages. As a result, slower productivity growth is much less of a threat to the sustainability of these systems than, for example, population aging. At the same time, slower productivity growth will have destructive consequences through previously overlooked channels. Persistent low productivity encourages overborrowing by corporations and households; private debt crises, in turn, represent a big risk to economies and fiscal systems. A similar logic applies to the social and political impact of low productivity growth. As long as it remains positive, slower productivity growth cannot in itself create new social problems. This conclusion can change radically, however, if productivity growth goes along with higher inequality or if voters find past promises and expectations disappointing. Unfortunately, this seems to be the case.

The second message concerns policy implications. To use a climate change concept, the contributions in this volume by intent are focused on *adaptation* to persistent lower productivity growth than on *mitigation* of the productivity trend downshift itself. For some this is an overdue recognition of reality, while for others this is a defeatist approach. For the most part, however, there turns out to be no tension between seeking to mitigate and to adapt. We find that a wide range of policies are available that are good for addressing both challenges. These dual purpose policies stress enhancing economic dynamism, and include doing so by increasing business entry and competition, facilitating mobility of workers, strengthening education, building fiscally robust universal healthcare systems, and reducing tariff and nontariff barriers to trade.

The priorities among such policy responses, however, are different when lower productivity growth is taken as unlikely to be significantly reversed any time soon than when one assumes that one can rapidly improve the productivity growth trend. One contribution of this volume and the underlying research project is to show that simply marking down fiscal projections is incorrect—design of pension and tax systems matter. Another contribution is to bring out the sizable international implications of the slowdown in the advanced economies, which have been largely overlooked to date. The differential impact across high-income economies, and more importantly the channels linking that to developing-economy growth, will shape trade, investment, and capital flows and thus prospects for global growth (including for safe higher returns for advanced-economy savers to offset slower domestic growth).

This project thus relates to the work done simultaneously on the volume that the PIIE published jointly with the International Monetary Fund's Asia Pacific Department in December 2018, *Sustaining Economic Growth in Asia*. A major conference exploring the causes of the decline in productivity growth, "Making Sense of the Productivity Slowdown," was held at the Institute in November 2015. A second major conference, "Policy Implications of Sustained Low Productivity Growth," followed two years later, in November 2017. This latter conference included presentations of early drafts of a number of the contributions that have been published in this volume; most have been significantly revised and extended for this publication. As all PIIE publications, these contributions seek to extend the frontier of research relevant for policymaking.

This volume, and the conference on which it is based, would not have been possible without the generous support of the Robert D. Ziff Foundation. Beyond the Foundation's financial support, the Peterson Institute for International Economics and Jeromin Zettelmeyer and I, as editors of this volume, are indebted to Robert and Daniel Ziff for their constant encouragement and many stimulating conversations that inspired and continue to improve our work in this area.

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