Foreword by Michael Spence

he global economy is evolving rapidly. It presents a complex and ever-changing picture. And it is important. The trends, opportunities, and challenges affect the lives of every person on the planet. But the forces at work and the results for trade, the structure of economies and employment, incomes, and human capital values have been and still are at best incompletely understood.

There is a growing body of research on the impacts of globalization and digital technology on individual economies. And there has been a huge and productive effort to reconfigure and refine trade data so as to expose the complex value-added structure of trade in goods and services, led by the Organisation for Economic Co-operation and Development, the World Bank, the World Trade Organization, and a number of other institutions.

What has been largely missing is a comprehensive and detailed picture of the dynamic network structure of the global economy. How economies are linked, specialize, and grow (or not) is captured in the way global value chains (GVCs) are put together. That is what this report is about. It is a huge contribution to our deepening understanding of what the global economy really means and how it is changing. One can think of it as a different viewpoint, complementary to the single-economy studies that focus on structural shifts and economic performance at the national level and that try to capture the impacts of trade and technology on growth, incomes, jobs, and more.

The insights in this volume are far too numerous to document in a foreword. I encourage everyone, scholars, policymakers, and leaders in business and civil society organizations as well as curious and at times concerned citizens, to read the studies. If we do this, it will expand our shared understanding of the forces at work and facilitate productive discussion of how to adapt and benefit from the global economy and how to deal with some of the distributional challenges that come with it. It is natural to see globalization through the lens of its effects on the domestic economy. But it is eye opening to see it also as a complex evolving network.

Here is a small sample of the insights that emerge from this valuable collection of studies.

Global trade looks very different when detailed quantitatively in value-added terms rather than as gross flows of exports and imports. Complex value chains (a growing fraction of global trade, especially trade in high-value manufacturing and services),

with multiple participants and numerous cross-border flows, are literally invisible when the focus is on gross flows.

Bilateral trade balances shift in a major way when viewed in value-added terms. While economists may deem these to be not so important, they are politically salient and strongly influence public sentiment and hence attitudes toward trade, trade agreements, and indeed fairness.

Services are extremely important and represent a growing fraction of trade. But to see that in detail, one needs to break down manufacturing value chains to expose the very large services components that are embedded in them. This point deserves emphasis. A careful study of GVCs in sectors classified as manufacturing (presumably because a physical product is delivered to the final consumer—which may be a firm that is producing something else) reveals that a large fraction of the value added is in services, broadly defined, with the fraction depending on the industry. These services are both upstream and downstream from the physical production of components and from assembly. Advanced economies, where the higher valued-added components tend to be located, thus show up in GVCs in the upstream and downstream components. This gives rise to a picture of GVCs composed of the participants along the value chain correlated with their stage of development, referred to as a "smile curve" because of its shape. This report does a superb job of moving the quantitative analysis forward on this front.

Barriers to trade in services are declining, slowly, but are much higher than those in the movement of goods, narrowly construed. These barriers have multiple sources, including regulation, legal institutions, infrastructure, and simple capacity.

The patterns of specialization across countries are much more visible and clearly defined when viewed through the lens of complex value-added chains. Through this lens you can detect, with much greater precision, where employment is created, what drives productivity growth, and what factors are affecting income distribution in a wide range of developed and developing countries.

As China's incomes rise and the tradables side of its economy shifts away from labor-intensive process manufacturing and assembly, one would think that these components of complex GVCs would shift to lower income countries, creating growth and development opportunities and momentum. To some extent, this is happening and will expand. But there are impediments. This volume makes it clear that low wages are not enough.

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Connectivity and, with it, reasonably efficient processes for logistics and for meeting standards and regulatory requirements are critical. And lots of countries currently lose out on this front. In the report, these issues are brought into sharp focus by distinguishing between wages and unit labor costs and by highlighting the factors that can differentially drive a wedge between the two. Clearly, for competitiveness, unit labor costs are the critical factor.

There are many more insights in this volume. I was especially interested in the way the evolving pattern of specialization in production and services within global supply chains helps explain the divergent distributional impacts of globalization across developed and developing countries.

The report helpfully distinguishes elements of an economy that are tradable and the large set that are nontradable. Clearly the tradables set is expanding with the support of enabling technology. For example, small and medium-size businesses can access global markets in a way that was simply impossible before because the transaction costs of doing so were prohibitively high. But the nontradables part of any economy remains very large. The linkages between the tradables and nontradables parts of an economy on both the supply and demand sides are crucial in understanding the growth patterns. This volume makes a good start at exposing the linkages between the tradables and nontradables sides of an economy. These linkages are complex. On the supply side they come through labor market shifts, and on the demand side through spillover effects of rapid income growth arising from specialization and growth on the tradables side. There is more to do here, but this volume is a very good start.

In trade and in economies generally, your neighborhood matters. Michael Porter and others in the classic book, *The Competitive Advantage of Nations*, documented that in virtually every industry there are a relatively small number of concentrated centers of excellence where efficiency and innovation are high. Proximity and agglomeration benefits matter. We continue to see these patterns today, whether they be in autos, electronics, financial centers, or in innovation hubs like that in Shenzhen in southern China. This has obvious implications for trade, particularly in services, including those contributing to manufacturing GVCs.

The report argues that connectivity in the networks that define the evolving architecture of GVCs is important. This is another aspect of neighborhood mattering. GVCs properly documented in value-added terms provide a detailed picture of the network connectivity of an individual economy and hence of which parts of the global economy will strongly influence that economy and its various sectors.

Under the heading of neighborhood effects, the authors find that even well-structured and connected economies with relatively low unit labor costs and high connectivity will suffer if their immediate neighbors fall short on the same metrics. "Bad neighbors" have a depressing effect on trade and presumably on growth. This may result from depressing effects on local trade or other factors. One suspects this negative spillover is more significant in the case of landlocked countries, but that is speculation on my part.

The Global Value Chain Development Report is the result of intensive and detailed work in assembling and analyzing data on the structure of economies and on how they are linked. It creates a much clearer picture of evolving patterns of independence. It also presents a much clearer picture of comparative advantage.

No country has a comparative advantage in making iPhones. What they do have is comparative advantage in generating elements of the iPhone GVC, in key services, components, and assembly. The multinationals are the architects of the supply chains. And there are firms that are specialists in structuring GVCs in various groups of industries—firms that are not associated with the production of a particular set of products. One might think of them as pure GVC architects.

Trade is a microeconomic phenomenon. Countries don't trade GDP. They specialize in trade in goods and services. And now we see that specialization for much of trade needs to be thought of in terms of components of GVCs. With value-added trade and GVCs you can see in detail, really for the first time, how trade catalyzes growth, especially in developing countries, and how it relates to employment, productivity, and income growth.

I learned a tremendous amount from the research reported in this volume, and I highly recommend it to all who are interested in growth and development, in trade and international investment, and in policies that promote or retard growth and development.

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