Comments on "The Past, Present, and Future of Economic Growth," by Dani Rodrik

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I have three reactions to the paper. First, I am very sympathetic to the argument that Dani has been pushing on the potential of "heterodox" versus "orthodox" reforms. There is overwhelming evidence that the kind of policies that successful countries have undertaken generally do not look like the typical "Washington Consensus" type of policies. However, at this level of generality it is hard to say more than this. While one can construct scenarios in which unorthodox reforms improve things, it is just as easy to construct scenarios in which they make things worse. (The same is also true of orthodox reforms). As the paper states, countries that experienced rapid growth implemented many unorthodox reforms, but many of the things they did were orthodox as well. Without looking at specific policies, it is difficult to know whether heterodox policies were responsible for the rapid growth or whether some of them may made things worse or whether it is the orthodox policies that were responsible. That said, I completely buy the point that the type of reforms with the largest payoffs for most developing countries are much more nuanced than indicated by the standard Washington Consensus recipe book. The difficult question, which Dani has been at the forefront of trying to answer, is what exactly these nuanced policy reforms are.

I also could not agree more that structural change is an integral part of successful economies. I would add that it's even more important than what one might think from looking at the manufacturing share of output. For example, even when manufacturing shares are constant, the growth of new sectors representing new technologies (for example, mobile phones) and the decline of "old" sectors (for example, textiles and apparel) is surely important to growth. And within each sector, high aggregate productivity growth is characterized by the reallocation of market shares from incumbents to new firms. The same is also true of productivity growth outside of the manufacturing sector. For example, Brazil is a country where productivity growth

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in agriculture in the last 20 years has been very high, and the evidence suggests that a big part of this was the reallocation of land away from traditional crops toward new cash crops (primarily soybeans). The Green Revolution in India almost 40 years ago was characterized by a "structural transformation" of land away from traditional rain-fed agriculture toward irrigation and fertilizer-intensive high-yield seeds. The spread of modern retailing in many Latin American countries is also an important "structural change," albeit in the retail sector, that we know relatively little about.

What I don't buy is why it is useful to think about the forces that drive structural change (in all incarnations) as divorced from the process of institutional reform. One could argue about the precise reforms that facilitate this process and whether orthodox or unorthodox reforms are key. But even if the key reforms are unorthodox in nature, it is still just as difficult to figure out which precise (unorthodox) reforms might work and just as difficult to implement them. Very few countries have implemented the kind of unorthodox reforms that China has implemented. Put differently, the paper gives the reader the impression that structural change is "easy" and deep institutional reform is "hard." My reading of the evidence is that reforms that drive structural change are just as hard and just as rare. And it is not clear whether being like Sweden, where the paper claims growth has been driven by fundamental institutional change, is different from being like China (or Korea and Taiwan). To be sure, the institutional changes behind Sweden and China are different, but they are not different in the sense that they are difficult to figure out.

Finally, the paper points to the evidence of convergence in manufacturing productivity to argue that structural change is potentially easy—all countries need to do is to remove the barriers that prevent the productive manufacturing firms from expanding. I would be more cautious in interpreting this evidence. Our intuition of what aggregate convergence implies does not necessarily carry over to thinking about sectoral (or regional for that matter) convergence. The implicit assumption we make in interpreting aggregate convergence is that labor is not mobile across countries. This assumption allows us to interpret differences in the aggregate marginal product per worker (as measured by aggregate output per worker) as reflecting differences in aggregate productivity. At the sectoral level, convergence in sectoral output per worker also reflects convergence in sectoral marginal product per worker (in a world where the marginal product is proportional to the average product). However, convergence of the value of marginal product per worker in a sector does not necessarily imply convergence in the productivity of the sector. Sectoral marginal products reflect aggregate productivity, which is a weighted average of productivities in all sectors in the economy, and the gap between the marginal products in the sector in manufacturing versus nonmanufacturing. Convergence in marginal products in the manufacturing sector might reflect convergence in productivity in the manufacturing sector, or it might be driven by an increase in the gaps in marginal products between the manufacturing sector and nonmanufacturing sectors (or the gap between the formal manufacturing sector and the rest of the economy).

Put differently, it is not clear whether the convergence in manufacturing output per worker reflects a shift in the marginal product of labor in manufacturing or a movement along the marginal product of labor schedule. At the aggregate country level, we assume that labor supply is fixed or driven by forces exogenous to productivity, so we rule out the possibility that differences in output per worker reflect movements along the labor demand schedule. At the sectoral level, there is every reason to believe that the labor supply in a sector is a key endogenous variable, which would imply that changes in output per worker in a sector could reflect a shift in the labor supply in the sector.

I think that if Dani were to lay out an equilibrium model that generates the following three outcomes—convergence in output per worker in the manufacturing sector, a declining share of manufacturing, and nonconvergence at the aggregate level—he would find that productivity in manufacturing would not necessarily have converged. I think what he would find is that the barriers the formal manufacturing faces may have worsened in many developing countries. This result would be completely consistent with Dani's argument about barriers to structural transformation. But it would still leave us with the hard task of figuring out what these barriers are and how to best tackle them.