Comments on "High Bandwidth Development Policy"

Ross Levine
Brown University and the NBER
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It is a pleasure to discuss "High Bandwidth Development Policy" this afternoon. This paper by Ricardo Hausmann is characteristically imaginative, provocative, and substantive.

There are many insightful and stimulating points in the paper. Indeed, there are an enjoyably large number of insightful and stimulating paragraphs. Nonetheless, perhaps because of the high dimensional complexity of the topic, I am unsure whether the individual points and paragraphs coalesce into a paper with a clear, novel message.

Consequently, my remarks are divided into two parts. First, I argue that the paper should ground itself more carefully into a long and influential line of research. This should help clarify its message and contribution. Second, I discuss two stimulating points raised in the paper.

1. What is new?

Perhaps, the main message of the paper is that the mechanics of economic development are really, really, really complex … too complex to be understood by any single human being or even by a group of very smart people. But, this is not a novel point. It was articulated quite clearly by Hayek in his Nobel Prize winning work. Surprisingly, Hayek is not acknowledged in the current paper.

Perhaps, the main message of the current paper is that the formation and evolution of formal and informal institutions and cultural norms are critical for shaping the policies that guide human interactions in general and economic activity in particular. Again, Douglas North won a Nobel price for his work on this theme. He too goes unrecognized in the current paper.

It might be annoying to document the origin of ideas. But, it is useful. It provides a common basis of knowledge and, importantly, a common language for discussing substantive ideas.

2.1 Should external policy advisors embrace complexity?

I would like to talk about baseball. In particular, I want to use baseball to discuss two issues raised by Ricardo in the paper.

Think about coaching a kid to hit a baseball. The basic advice would be: Eat healthy foods and get plenty of rest to build strong muscles and an alert mind; Practice, so that you develop good eye-hand coordination; Then, watch the ball when the pitcher throws it and hit the ball with your bat.

Now, think about a scientist examining a kid trying to hit a baseball. The scientist might want to build a model of this process. The complexity would be enormous. The optics, physics, and geometry of gauging the speed, spin, and location of the ball are exceptionally complex. The problem of designing a robot that gets the bat in the right place, at the right time, with the right force involves multidisciplinary scientific challenges. Moreover, the environment keeps changing. Each pitch has a different speed, curvature, and trajectory. Each moment has different lighting, wind, humidity, and atmospheric pressure.

Building such a high-dimensional, complex model is fascinating and perhaps necessary for understanding the science of hitting a baseball. It is not clear, however, how to translate this science into advice that will raise the kid's batting average, though.

My point is the following. We as scientists should delve into the dynamic complexities of institutions, policies, and the processes of economic development. But, I am not sure that we as policy advisors are going to do much better than outlining some broad strategies for policymakers, such as those advanced by Adam Smith and more recently by Larry Summers as quoted by Ricardo in the paper.

For example, I was in Israel recently discussing banking laws and regulations. They asked me to review the different regulations and laws, and how these interacted with tax policies, non-financial sector regulations, corporate law, securities law, and cultural attitudes toward property registries, etc. I complied, but I do not think that this was useful to them. (I fully recognize that this example might simply reflect my own, extensive limitations, but it still helps illustrate a general point.)

I am not an expert on Israel. I am not going to become an expert in a day, or a week, or a month, or even a year. Indeed, it took a multidisciplinary, cross-department team of experts to cover the issues associated with improving banking in Israel.

But, I have done lots of research on banking and read other people's research on banking. Some broad lessons emerge about competition, transparency, incentives, etc. So, I used these strategic lessons from research to ask basic questions.

This elicited useful information by the Israelis, and for the Israelis. This useful information came from the Israelis, not me. I simply asked --repeatedly-- very small, tangible questions about how to get a loan, change banks, obtain information about borrowers and collateral, open a bank, acquire an existing bank, etc. Their answers yielded information on an array of factors hindering the effective functioning of the banking system that I could never have anticipated.

This information also quickly illuminated the political economy forces that produced and sustained the various barriers to a more effective banking system. In my experience, it is often not difficult to identify key barriers to enhancing social welfare, the difficulty lies in finding the political will to remove those barriers.

To me, this example illustrates some advantages associated with the strategic approach offered by Adam Smith, rather than the high dimensional complexity approach offered by Ricardo.

I am not arguing for a simple three point plan to create nirvana. I am simply suggesting that there are advantages to advocating simple strategic approaches to the formation and reform of policy that are based on experience and sound research.

2.2 Institutions form and evolve for a reason

The last point I want to make focuses on the formation and evolution of institutions. I get the impression that Ricardo in conjunction with other really smart experts wants to embrace complexity and figure out which institutions to recommend to countries so that they will adopt growth enhancing policies. I am going to argue that the ability of policy advisors to materially change the rules of the game through persuasive arguments or even through multilateral conditionality is even more limited than we sometimes realize.

Let's use baseball to begin an illustration of how institutions are frequently formed and reformed due to the unintended consequences of technological innovations. I will focus on an institution that has exerted a profound influence on the North American continent for about 500 years: racial discrimination against African Americans.

Everyone knows who Jackie Robinson was. He was the first black player to play in major league baseball. Branch Rickey is less well known. He is the white owner of the Brooklyn Dodgers who hired Jackie Robinson. After Robinson broke the color barrier, many African American players were hired by other major league teams.

With the current focus on the importance of institutional change at the IMF and World Bank, one might suspect that enlightened individuals decided to eliminate the degrading institution of racial discrimination within baseball.

From a different perspective, however, Gary Becker would argue that it was competition. Basically, from Becker's analysis, competition among the Dodgers, Giants, and Yankees spurred Branch Rickie to hire the best baseball players, not the best white baseball players. Rickie gambled that he could spur profits by having a better baseball team, even if it meant breaking the color barrier. More generally, Becker argued that competition would increase the costs associated with satisfying a taste for discrimination, implying that intensified competition would boost the demand for black workers, reducing the premium paid to white workers.

Without getting too deep into what motivated Mr. Rickey, this little snippet from baseball raises a question about institutional change. Is institutional change – such as racial discrimination -- driven by the enlightened choices of society's decision makers in, or is institutional change driven by prices and economic incentives?

Let's continue discussing the institution of racial discrimination, but let's move beyond baseball and mix into the analysis of one of my other passions: banking. To do this, I first explain how technological innovations induced reforms to bank regulation that intensified competition throughout the economy. Then, I will return to discrimination.

Following the ratification of U.S. Constitution, which banned states from taxing interstate commerce, states began collecting revenues from the chartering of banks. Since one state received no chartering fees from banks incorporated in other states, state legislatures prohibited the entry of out-of-state banks. These restrictions created local monopolies.

By protecting inefficient banks from competition, these regulations created a powerful constituency for maintaining and strengthening restrictions on bank competition.

In the last quarter of the 20th century, however, technological innovations diminished the economic and political power of protected banks. For example, the invention of automatic teller machines (ATMs) weakened the geographical link between banks and their clientele. Furthermore, improvements in telecommunications made it easier to use distant banks, further weakening the power of local banking monopolies. Finally, the increasing sophistication of credit scoring techniques and improvements in information processing reduced the informational advantages of local bankers. These technological innovations reduced the power of local banks and also reduced their incentives to lobby to maintain restrictions on competition.

Thus, states deregulated restrictions on interstate banking from the mid 1970s through the mid 1990s. It was not the realization that these bank regulations were bad for banking efficiency, or economic growth, or social welfare that drove bank deregulation

Rather, these restrictions were abolished when profit-motivated technological changes reduced the economic power of those supporting the bank regulations.

Research finds that this bank deregulation had a couple of effects:

First, bank deregulation increased competition among banks.

Second, bank deregulation increased competition among non-financial sector firms by making it easier for start-up firms to obtain capital. This facilitated the entry of new firms and corporations.

Third, by increasing competition in the non-financial sector, bank deregulation reduced discrimination against blacks throughout the economy. I show this in a recent paper with Alex Levkov and Yona Rubinstein.

In particular, interstate bank deregulation intensified economy-wide competition. This increase in competition reduced discrimination against African Americans by affect the economic incentives of firm owners as argued by Gary Becker.

Put differently, the invention of the ATM machine reduced a prominent, pervasive, and enduring institution, racism.

To conclude, policies and institutions are created for reasons. Even if the experts are smart enough to understand the multi-dimensional complexity underlying these processes, we should have a healthy degree of humility about the ability of even the smartest experts to change major institutions without altering the reasons underlying the creation and maintenance of those institutions.