

# General Discussion: Shifts in Economic Geography and Their Causes

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*Chair: R. Glenn Hubbard*

**Mr. Hubbard:** Picking up on Doug Irwin's remarks, Tony, the leap from what we know from economic models to policy is rather substantial. Please give your views on what we know about the relative strength of benefits of improvements in capital markets and national champions or "big push" policies.

**Mr. Srinivasan:** Tony, you emphasized very much the divergence aspect of globalization. It seems to me that any change, such as the ones you emphasized for production and trade costs of technology, is an enabling change. Whether or not that enabling change is utilized, there is divergence across agents, countries, and the world in the ability or in the willingness to take advantage of the opportunities opened up by the change. So, divergence initially is to be expected; it is natural. The question one has to ask is whether this is a transition phenomenon. I grant you that transition could be for a long time. But whether it is a transition phenomenon or whether it is a permanent congealment of the initial divergences and opportunities, I haven't seen anything that would suggest that whatever is happening is going to make a congealment of the initial disadvantages and advantages.

**Mr. Feldstein:** Doug correctly cautioned us not to take too seriously the worries of those who think we are going to see U.S. wages fall to Beijing levels. It is important to emphasize why the simple fact of price equalization theory doesn't hold. Most economists understand this, but it is worth emphasizing.

Why is it that U.S. workers making the same products that are made in China earn higher wages? Well, they don't because we don't make those same products. Low-skilled workers in the United States cannot compete with low-wage, low-skilled workers in countries like China.

What happens is that the products that are made by those workers in China are imported to the United States, while the corresponding low-skilled workers in the United States move into the service sector. So, we can have higher wages for low-skilled workers in the United States because there cannot be competition in the wide range of service jobs, which now make up most of the U.S. employment. It is worth understanding that, so the fear that somehow the production in countries like China and India will drive down wages in the United States doesn't really concern us.

**Mr. Garber:** The last great convergence that we saw historically ended in the divergence that was brought about by World War I. This happened because there was a disproportionate increase. Although there were gains from trade all across the board, there was a disproportionate increase in the geopolitical power of some countries relative to others in the context of a security system, which reflected the old power relationships. And the whole transition was mismanaged. Today, we see again a rapid increase in convergence in opening and gains from trade and also a rapid shift in geopolitical power within the context of the old system. Can we not expect the possibility that instead of just continuing onward progressively to see a sudden breakdown that the old security system cannot handle this shift in power?

**Mr. Goldstein:** I wanted to ask Tony what the literature has to say about what you might call diseconomies of proximity. If there is a positive relationship between proximity and productivity, where does that stop? If productivity goes up 40 percent when city size goes from 100,000 to 10 million, does it continue to go up when the city size reaches 50 million?

Where are traffic costs in the model? Imagine yourself in Jackson Hole with all of its impressive physical surroundings, but imagine there are 10 times as many people. So, there are lines to any activity you want to do. Where does that appear?

**Ms. Krueger:** I want to follow up a bit on Doug's point about neglected policy in terms of explaining or accounting for some degree of income differentials. You emphasize proximity and economies of scale and cited Asia relative to Africa to some extent. Everybody knows those disparities. There are a couple of problems with the comparison as an economic geography measure, however—one being that the estimated per capita incomes in Africa as of, let's say, 1960 were arguably somewhere between 10 and 20 times those of Korea and China. So, indeed the economic geography changes are more than simply a matter of Asia getting bigger. Ones that were bigger have become, at least in per capita terms, and often absolutely, smaller. But having said that, another part of the quarrel of using Asia as an example would be that if you look at Taiwan, Korea, Hong Kong, and Singapore in economic growth—and they are the first of the miracle cases, I suppose—one of the interesting things is that in none of those cases was trade with Japan, which was the one in the region that was growing more rapidly and very large. In fact, in Korea's rapid growth period, it still hadn't signed any kind of a truce with Japan. That was simply not a factor. Now, I would certainly agree that competition—as the Koreans watched what the Taiwanese were doing right and vice versa—affected their policies and, therefore, was important input. I would argue that anybody knowing, or

anybody living through, those transformations would put a great deal of emphasis on the kinds of things that had to do with a more stable structure, a better set of incentives, and being more market-friendly. And what you have is certainly openness of the economy, getting inflation under control, some degree of macro predictability, etc., and much less to do with economies of scale in your sense of rising productivity that the economic geography model, *per se*, would suggest.

And just to finish off, we do have counterexamples. I have in mind, for example, Chile's fairly spectacular economic growth in Latin America and everybody asking how they can do it and nobody else can. Doug said in Australia and New Zealand and, in some sense, the proximity in the kinds of ways you are using, it does not seem to account for much of those successes or, for that matter, for some of the other countries that have done poorly in regions that have done as a whole very well.

**Mr. Venables:** First, a plea: I am not trying to suggest here some sort of monocausal theory of economic growth in the location of activity in the world. I hope the paper is more careful in saying that more explicitly than perhaps I was in the talk. Of course, institutions matter. Of course, policy matters. Of course, these other things matter. Setting up geography against institutions as some sort of horse race—as people have done—is a profoundly foolish thing to do. All these things matter. I am not saying this as a cop-out or backing off. It is just as we build up insights into the way the world works, we have to draw on different theories and build up a fairly broad range of tools, ways of thinking about problems. This is one element in the talk. I am really not saying it is all that matters. I think the paper is careful about that.

Second, please don't read this as a plea for doing industrial policy. We acknowledge that the world contains lots of market failures. It does not follow logically from that, that the government can do any better. The world does contain market failures. There are coordination problems, and there are threshold effects. That has something to do with Africa's problem and the problem of oversized cities and things, but it doesn't mean that we have the policy tools, the wisdom, to leap from it straight

into industrial policy. Take these as a set of tools to gain more insight on the world.

Next, I will address T.N. Srinivasan's point: transition versus permanent, the divergence convergence. The way I think about this coming out of a particular model, a particular piece of work that we did, is that the divergence, or clustering forces, are strongest at intermediate levels of trade costs. When trade costs are high and we are all the same living in our villages, if trade costs in everything went to zero, we could all communicate perfectly by videoconference, by video link. If all the advantages of proximity went away, then we would be a world of factor price equalization, and everything would be uniform and nicely smeared. So, in some sense, it is at intermediate levels where the agglomeration stuff is going on, but you also can do trade. You don't have to be right next to your consumer. You can concentrate some things and separate others. In some sense, it is at those intermediate levels where the divergence forces are strongest. That is what the theory suggests. Again, I hope the talk didn't give the impression that I think it is all divergence. No, it clearly is dispersing out. But the point is, it can go either way. We had better understand that we need to think hard about these forces.

A final thing and then I'll hand it over to Doug. I am leaving a few questions unanswered. Yes, there are economies of scale up to a point, and then you have the mega city that surely brings diseconomies. There is some work by Vernon Henderson. I forget the exact number, but it is 2.8 million or something for the optimal city size. (Don't quote me on that, but there is econometric work on that.)

Let's go back into policy, the normative stuff. We know cities grow beyond their optimum size because of coordination failure in setting up new cities. We want to set up secondary, tertiary cities in developing countries, but we don't know how. Building new capitals and things is hopeless. We don't how to do it, but we know that big cities have gone beyond the maximum. How do we grow the second one? There is a real set of issues there.

I'll leave the politics of the breakdown question and some of the other questions for Doug.

*Mr. Sperling:* I wanted to point to something that perhaps combines the chairman's comments with this, but I think has been left off. Maybe I would add that it's a question of whether there is a new geography of economic dislocation. The thing we don't talk about as much here is that when one looks at the dislocation that leads to much of the opposition, it is not the individual worker spread out. It is the fact that, particularly in manufacturing, economic activity is highly concentrated. Therefore, when the industry loses its competitiveness, the community, the area, spirals down uncontrollably. The question is, Is this just part of the old economic geography of manufacturing? Or when I look at what you are saying or one looks at Silicon Valley, will one expect that even the promising future will see again significant geographic concentration of activity, meaning that we have to spend more time thinking about what is the economic geography of dislocation? Will we still see shifts, not just the problem of individual workers spread around, but the problems of a community suddenly losing its demand all at once and spiraling down?

*Mr. Ortiz:* I have just two observations. One has to ask the question, given this economic geography discussion: Why is it, for example, if Mexico is so close to the United States, that Mexico's incomes haven't converged quicker to those of the United States?

We did a little exercise at the Bank of Mexico in which we imagined that we had not done the policy mistakes in the 1980s and 1990s; the debt crisis of the 1980s did not exist because a series of policy mistakes had not happened. It turns out that on conservative estimates, without going into best policies—just the volume of mistakes—per capita income in Mexico would be 66 percent higher than it is today. So, one has to reflect—and this is following what Anne Krueger was saying a little while ago—that the policy framework is probably as important or even more important than what the economic geography theories would predict.

I was discussing another point yesterday with Stan Fischer. We were talking about this proximity and scales, saying that perhaps Mexico

City would be the most productive city in the world, maybe second only to Mumbai or São Paulo.

**Mr. Frenkel:** First of all, I enjoyed the paper very much. There was some discussion on the changes in the size of countries as a result of various changes in population as one of the determinants of what we are going to see in the future. Let me add the dimension of age distribution to the dimension of size distribution. Demographers tell us that within the next, say, 15 years, we will see significant changes in both size and age distribution in the world. Europe is going to shrink, however, in a very peculiar way. The cohorts of the age above 50 in Germany will expand. The cohorts in the age above 60 in Italy will expand. Japan is going to shrink—significantly—but all the cohorts above 70 will expand. At the very same time, you are going to have fundamental changes in Asia. China will increase in the next 15 years by 160 million people, as you indicated. But the age distribution is going to be fantastically very different. In fact, everyone above 40 will see more and more friends around him. Everyone below age 40 will see fewer friends around him. That is the aging population in China. At the same time, India will increase in the same period by 300 million people, but in a fantastically beautiful symmetrical distribution. Obviously, these changes in the age distribution must have fundamental implications on the stability of the economic system, the social system, the burden on the social security system, the pension system, and also on the question of which population in age distribution is more prone to initiate and absorb technical changes.

**Mr. Gurria:** Thank you for putting this item on the agenda. We at the Organisation for Economic Co-operation and Development (OECD) have been looking at some of these issues for some time. We have done about 16 national studies on territorial development, about nine studies on rural regions, about six or seven on city regions, and about 14 on metropolitan regions. We have been looking at the urban renaissance lately of some of the cities and regions in the world. Basically, productivity and proximity come out to be strong drivers. They are very positively correlated.

Subcontractors and customers work better when they are close. Labor markets are more efficient when they are large. The spillover of innovation from research centers is facilitated by face-to-face relations between technical people and researchers. It, of course, varies from country to country, depending on the sectors and depending on things such as property rights.

Therefore, rather than looking like a paradox, it does explain and confirm the findings about disparities and why per capita income is not converging, but rather, in some cases, diverging. The regions are, in fact, diverging in terms of how well they are doing. There are some cases of hope in terms of countries that have actually clustered or promoted certain regions, but there is, above all, the question of overall macro policy of the countries themselves. In every case, what the data suggests (and there is very good data) across all the members of the OECD, at least for the subnational level, is that, of course, enlightened policies can do a lot to improve economic activity and its outcomes in terms of wealth and welfare, even if you have relatively badly endowed areas. It did a lot in the cases of Scotland or Ireland, for example. Also, regarding how to adjust these imbalances, you focused on solutions “within the countries” not only across borders, but this is not achieved just by aiding the regions directly through budget transfers. For example, even though Italy has been putting billions and billions over decades into its southern region, southern Italy still has four times the level of unemployment as in the north. The solution is building and creating capacity in these areas.

*Mr. Venables:* Gene Spierling’s point of increasing/decreasing concentration in the future is going back again to T.N.’s thing. We just have to do the research at the micro detail here. These effects operate in different strengths in different sectors and spatial ranges. This approach does have micro foundations, it does have empirical work, and we can do the micro detail.

There is an urban renaissance going on in developed countries. I guess that is partly for consumption benefits, but it is partly



because an increasing proportion of what we do in the economy is knowledge-based. A knowledge base really seems to thrive on face-to-face communication, clustering. So, yes, if that is going to be the structure the economy takes, then concentration will remain important. It may possibly become *more* important in a lot of developed, high-income countries in recent years because of this knowledge-based urban renaissance thing going on. So, we have to look at the micro detail.

Places are losing sectors and spiraling down. You have to analyze that and really think what is mobile. How easy is it to move more firms in? How easy is it to move workers out again? Let's try to take a tool kit of geographical ways of thinking about stuff to answer the question when an area is hit. How easy is it to get it going again? It is an approach. It is a tool kit. It is a way of doing things.

Gordon Hanson and others thought about Mexico in geographical terms. Mexico is a nice geographical test bed for economic geography because it obviously is a rather closed economy. It did exactly what economic geography would predict. Everything clustered in Mexico City, which had the highest productivity—not in the world, but in Mexico. What has the recent economic story of Mexico been? Again, it is rather a geographical one. It is the northern border. You have some dispersion, some deconcentration from Mexico City, development on the northern border, and increasing spatial disparities north and south. So, again this whole tool kit, I would argue, possibly fits the Mexican story rather well. It is a good set of tools to apply to the Mexican story.

For the age questions, demographics are obviously interesting. I don't have any answers, but the obvious other thought that comes to mind is migration. What is the migration angle on this going to be in terms of bringing in workers to fill the gaps and the consequent changes from that?

It was interesting to hear how the OECD works. So, thank you for that.