Inequality: Tackling Poverty and Social Fragmentation

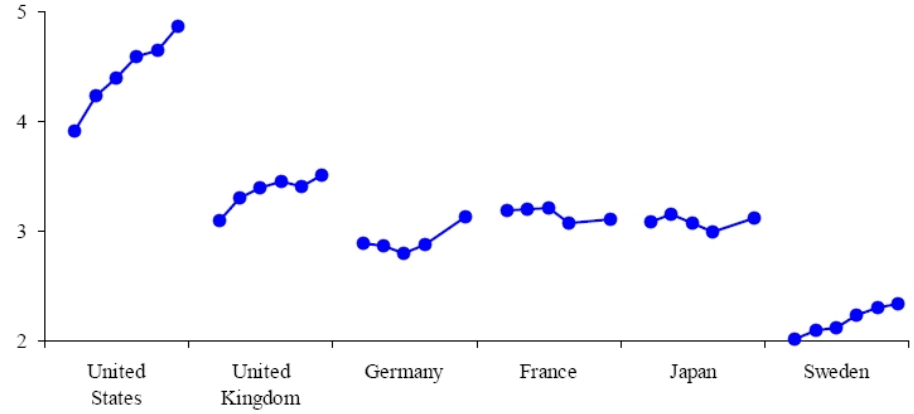
Inequality and Globalization

Summary

The new wave of globalization may be expected to create new patterns of inequality within countries. Inequality has long been a problem in developed and developing countries, but the new wave of globalization – through new patterns of outsourcing, off-shoring and technology diffusion – may be creating inequality along new lines.

What are the implications of these developments for the fight against poverty and inequality? Do we need new forms of insurance against income loss? New forms of redistribution? New strategies of cooperation between business and government? How can the private sector be encouraged to provide the necessary social insurance? How can governments mitigate inequality in a self-adjusting way?

Trends in Earnings Inequality, 1980-2005



Note: 90-10 percentile ratios for the gross earnings of full-time employees, averages for 1980-84, 1985-89, 1990-94, 1995-99, and 2000-01; and 2005.

Source: OECD, Economic Outlook (2004, 2007).

Proposed Solutions

Expert Opinion

Less Globalization, More Redistribution?

Less globalization and more redistribution would be an intuitive though misleading response to the perceived increase in inequality, for two reasons. One is that the increased international mobility of goods, financial assets, people, and ideas is most likely to create income gains and hence is worth having. What matters for inequality appears to be the combination of globalization with technology. Thus, reducing globalization by taxing the winners to compensate the losers is a solution that will not help, because it will mean foregoing income gains without necessarily affecting rising inequality.

The Two Sides of Computer Technology

More and better education is often held to be the appropriate long-run policy reaction to hinder rising inequality. This solution also does not address the core of the problem. Computer technology has two basic effects: it increases the income of individuals with very specific talents, and it reduces the income of individuals with qualifications that are no longer needed: Superstars (e.g., sport, music, movies) see their income soaring because their product can be sold worldwide; but for some jobs the ability to read and to compute no longer matters. More and better education may in fact increase inequality, if it is (much) more effective for the talented than for persons with average abilities.

A Positive Strategy to Counter Increasing Inequality

At least up to now, the largest share of GDP in rich countries is not contested globally. Global arbitrage will only equalize wages of identical workers with identical tasks. Many tasks appear to be sector specific. For instance, it remains to be seen whether and how the wages of textile workers in relatively poor countries can affect the wages of nurses and waiters in rich countries. Hence a positive strategy to counter rising inequality may consider three trends, which require new forms of cooperation between business, labor, and government:

- The increase in the pace of innovation, which is likely because of recent technological developments and a much larger pool of brain power thanks to globalization, means that average growth rates in the 21st century could be higher than in the past.
- To realize these potential income gains, a transition from an industrial to a post-industrial society is necessary, where manufacturing employment shrinks and wealth is increasingly created in the creative/intellectual services, some of which are internationally tradable.
- A post-industrial society requires a restructuring of work organization away from narrow functional tasks towards multi-tasking and job rotation, such that the division of labor between countries and firms will increase, whereas the division of labor within firms is likely to decrease.

Strategy Perspectives

Neurofacturing: Is there a Solution?

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The root causes of growing within-country inequality seem pretty clear; some are long-standing and familiar but some are not. The tried and true solutions for the familiar 20th Century problems are infrastructure and education. Build it, and manufacturers will come, with good jobs for all. The solutions for the 21st Century problems described by the GES summary are far from clear.

With the fraction of employment in manufacturing falling rapidly in every advanced developed country a solution that relies on attracting or even retaining adequate numbers of manufacturing jobs is no longer viable for any of these countries, though it might still work for some subregions within some countries. Most communities will need to wrestle with the reality that economic growth will increasingly come not from manufacturing but from neurofacturing. Even within the so-called manufacturing sector the sliver of value added that derives from manual labor, lifting tires and turning screws, is getting smaller and smaller, thanks to mechanization and robotization, while an increasing share of value added derives from brain work with the muscles idle.

Manufacturing and neurofacturing might have similar consequences for income inequality, but they don't. There are of course vast differences in physical ability and skills just as there are vast differences in mental ability and skills. In an economy relies on manual labor, strength and dexterity differences among individuals could cause vast income inequality. The incomes of our sports stars attest to that. But in most workplaces, Science has placed a machine between manual workers and their output. That machine changes fundamentally the relationship between ability and productivity. A forklift is a good example. A forklift greatly increases the strength of each of us, but it also eliminates ability differences – with a forklift, you and I are equally good at lifting and will get paid the same. Most of the productivity-enhancing equipment in manufacturing is like the forklift – it doesn't matter much who operates the machine. Because of that, industrial machinery and the division of labor caused a great deskilling of manufacturing during the industrial revolution.

Neurofacturing has had a completely different history. For centuries, neurofacturing has been done with the most primitive of equipment – paper and pencil, blackboard and chalk. Unlike the case of industrial machinery or farm equipment, it has mattered greatly who was pushing the pencil over the paper and who was rubbing chalk on the blackboard, but the rewards for the most talented were kept in check by the complete lack of productivity-improving equipment. Now, the personal computer and the Internet have created a completely different technological environment for neurofacturing. This new equipment greatly amplifies the productivity of the talented and causes a large increase in income inequality. Can you imagine the income distribution that would emerge if there were only two jobs – writing commercially viable software code and delivering services to those who do?

The GES summary raises concerns about the fragmentation and delocalization of supply chains in neurofacturing. Manufacturing supply chains have been fragmenting and delocalizing for centuries, even though physical transportation costs encourage the concentration of segments of the supply chain in only one or at most a few relatively close locations, often near either the raw materials or the final customers. But a neurofacturing team doesn't need to pass physical goods in process between team members. What keeps neurofacturing

locationally concentrated are the communication costs. Now that it is virtually costless to transfer digitized information over space, the GES summary seems to raise the specter of a complete splintering of neurofacturing supply chains. I very much doubt that this is a big concern. In both manufacturing and neurofacturing it is the mundane and codifiable functions that are footloose, but complex team-based activities still need to have the team members in close geographic proximity. To put the point rhetorically: "Why do we need all to gather at the Ploen Castle? Why not meet virtually?" The answer is that we are still animals, who exchange information in special ways when we are in the same room. (My dogs bark loud warnings if they see another dog in the neighborhood, but they ignore altogether the image of a dog on television.) Aside from my pontifications, folks who have looked critically at the data to find evidence of a problem routinely agree with Liu and Trefler's recent title: "Much Ado About Nothing: American Jobs and the Rise of Service Outsourcing to China and India," (NBER Working Paper 14061).

In other words, I do not think that the transfer of intellectual tasks to China and India is a big enough problem to cause great worry. The problem is that we are experiencing a transition from industrial to post-industrial economies, which is going to wreak changes that are very different but just as profound as the transition from agrarian to industrial society. My solutions for the inequality that comes from the rising importance of neurofacturing are offered in the last section. First, some lessons from history.

Globalization and Technological Change

Two familiar forces have been greatly affecting labor markets since the beginning of the Industrial Revolution:

- **Productivity gains:** Standardization of the product and mechanization of the process have turned rooted craft jobs into footloose mundane tasks and have created an incessant drumbeat of productivity improvements that allow the few to do the work of many, both in our factories and on our farms.
- **Transportation cost reductions:** Roads and canals and clipper ships and steam ships and trucks and aircraft and containerization and have greatly reduced the time and money cost of transporting raw materials, goods in process and finished goods.

After two centuries of experience, we know a lot about the challenges and opportunities created by these forces, and we know what are the best solutions for the problems they create. That wasn't always the case. Faced with the uncomfortable consequences of the standardization and mechanization of textile production, the Luddites expressed themselves by destroying the equipment. Had they been more farsighted, they would have realized the futility of fighting against the industrial revolution ,and they might have anticipated the great increases in incomes for unskilled workers that eventually came from the incredible productivity improvements brought about especially by the electric motor and the internal combustion engine. Absent that foresight and with no solution on the horizon, many workers refused to be governed by market forces and sought power in collective action: unionization and even Communism. I raise this point to warn about the unexpected consequences if we fail to find compelling solutions.

The eventual solution to the problems created by the Industrial Revolution was not to build barriers against it, like smashing the equipment or restricting imports, and not to sit idle on the beach while the tsunami of standardization and mechanization approached the shore, but to embrace the opportunities and rise to challenges. You know the solutions: infrastructure and education. Transportation and logistical infrastructure allowed manufacturers low cost ways of getting their goods to market, and high quality education assured manufacturers the kind of workforce suited to the innovative products of tomorrow, even as the undertow of

standardization and mechanization pulled mundane tasks to locations where wages were low and where Marx's army of the unemployed stood ready to the do the tasks for even lower wages.

While the movement of tasks to low wage locations and the movement of workers to the high-wage locations has been going on to some extent for centuries, this force has been greatly amplified by the speed at which we are now moving from an economic system integrating about 1/3rd of the global workforce located in Western Europe, North America and a sliver of countries in Asia to a much larger system that is attempting to integrate all the workers on the globe. The new problem is

- **More unskilled workers:** The economic liberalizations in China and India and Russia and South America and so on and so on have added to the effective global labor markets a huge number of unskilled workers and relatively little human and physical capital, but also large absolute numbers of highly educated workers.

For the high-wage countries, infrastructure and educational investments turn these emerging countries from potential competitors into partners, which assures higher real wages in the both developing and advanced countries.

Best to pause a bit and think clearly how these solutions work. A competitive global economic system doesn't like to have gold being sold in Hamburg for €1000, in London for €800 and in Shanghai for €400. Faced with those price differences you and I would know what to do – we would buy the gold in Shanghai or London and sell it in Hamburg. And we would keep on moving gold from one location to another until that arbitrage forced gold prices to be very similar everywhere on the globe. The same is true for standardized labor. Differences in wages in different cities create potential arbitrage opportunities pursued by businesses that make the products where labor is cheap and sell the products where labor is dear. Just as in the case of gold, if the same product is made with standardized labor in two locations, one location with high wages and one with low, either there have to be compensating cost advantages for the high-wage location or something has to give – either the high wages or the location of production.

Incidentally, the GEM summary offers the challenge: "it remains to be seen whether and how the wages of textile workers in relatively poor countries can affect the wages of nurses and waiters in rich countries." Actually, "how" seems quite clear to me. If product market arbitrage pushes wages in tradeables in wealthy countries down to wages in poor countries, then the low-wage infection will surely spread to non-traded sectors in the high-wage countries through labor market arbitrage –workers choosing between tradeable and nontradeable sectors. That doesn't mean nurses need to worry – few garment workers have the skills to do nursing. I am not so sure about waiters. Waiters in posh restaurants in Beverly Hills may likewise be protected, mostly, I think, because of language skills, but wages of kitchen help are likely to be linked through the labor market arbitrage to wages of garment workers in downtown Los Angeles and then through the product market to wages of garment workers in Guangdong.

This isn't as frightening as it seems. Compensating cost advantages can keep wages high even with all the arbitrage opportunities. Compensating advantages of the high-wage locations can include relatively cheap and talented high-skilled labor as well as superior transportation and logistics infrastructure. Those contribute to a "technology gap" that once favored the workforce in the United States over many other countries. Thus again the familiar solution: education and infrastructure.

Another way to keep wages high in high-wage countries is to break the product link in the chain of arbitrage by laying an infrastructure and education foundation for an economy that produces nothing in common with the Chinese. Think Seattle, not Los Angeles. Seattle

produces software and aircraft, which historically have not also been produced by low-wage workers in low-wage countries. Seattle does this because it's low-skilled workforce is sufficiently small that it can be absorbed partly in human capital-intensive manufacturing and partly in high-wage local services. How did this happen? Again the answer is an educational system that leaves relatively few unskilled workers. A community with one barber and 1000 professionals can have high wages for barbers, while a community with 1000 barbers and one professional is sure to have low wages for barbers.

That's looking backward. The new problems to which the GES document refers have been created by two revolutionary forces:

- **New equipment for knowledge workers:** The Internet and the Personal Computer have fundamentally changed the nature of knowledge work, raising productivity, emphasizing talent and reducing the need for "helpers."
- **Communications innovations:** The cell-phone and the beeper and e-mail and voice-mail keep us all wired and connected 24/7, thus eliminating the borderline between time at work and time at leisure. These same communication tools, together with the Internet and virtually costless telecommunications have extended the geographic reach of suppliers, and have increased the intensity of competition for mundane work and standardized products.

Solutions

Maybe the way to best express the problem is to say: Hollywood not Detroit. Detroit is a manufacturing city of the 20th Century. Hollywood is a creative intellectual services city of the 21st Century.

Detroit is a top-down hierarchical economy that provides high-paying jobs for high school graduates with good job attitudes. What these workers needed to learn in high school beyond literacy was to get to work on time and to do what the boss says. In return for surrendering a large part of personal control, Detroit offered a reasonably equitable distribution of income and earnings that rose over time at every level of skill.

Hollywood is totally different. Hollywood is a bottom-up relationship-based economy that has great rewards for talent, but offers little for a high-school diploma per se. The education needed to work in Hollywood is completely unlike the education suited to Detroit. The worst kind of worker in the creative sector is one who gets to work on time and does what the boss says.

The personal computer and the Internet, I think, are making many job markets look more like Hollywood and less like Detroit. If that is correct, we have a problem.

If Hollywood is the future, what should we do? **First of all, we need to stop blaming foreigners, be they immigrants or workers who make our imports**. Our problems are right here at home, and the solutions can only be found here.

One thing we need to do is to alter our educational institutions. The kind of education that we provide is either going to lock up or to release our talents. **To prepare our students for creative work in the post-industrial age we need to deemphasize rote learning, and emphasize analytical thinking and problem solving.**

Secondly, we need to recognize that talent and intellectual ability are highly multi-dimensional, and a one-size fits all educational system is not going to suit the abilities of many of us. **We need an educational system that celebrates our special abilities, and that provides multiple tracks toward creative craft jobs of all varieties, many of which like skilled carpentry have a physical as well as mental aspect to them.**

But, like it or not, the economic system seems destined to move us ever more toward a Hollywood style income distribution, in which a few workers bring home “A’s” on their report cards but most get “D’s” and “F’s” in the income race.. Compensatory education simply isn’t going to turn us all into stars.

We can and should compensate workers who receive those D’s and F’s with **more progressive income taxes**, but that is not likely to be enough to offset the disappointment from the low grades. We need something else. **We need a new yardstick for measuring our lives***,* a yardstick that places less emphasis on the speed and size of the car we drive and more on the number of real friends we have and the social good that we do.

For more on much of this I recommend my review of: **The World Is Flat**.