

# **Theoretical Reflections on Making Policy for an Intergenerational Global Economy**

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## 1. FOUR MAJOR POLICY CHALLENGES

This first informal lecture is dedicated to a few topics which, in too many economists' discussions of public finance, may not have received all the attention they deserve. They relate to what could be defined as the four major economic challenges in the early 21<sup>st</sup> century. An alternative title could have been "Political Economy in the Early 21<sup>st</sup> Century," though this could be misleading because politics will not be specifically discussed here. Nevertheless some interesting political debate could take place in connection with the themes of today's lecture:

- 1) introduction: four policy challenges
- 2) a dystopian scenario
- 3) poverty and disease
- 4) pollution
- 5) disrupted labour markets
- 6) pensions and social security
- 7) globalization as an opportunity

The first major policy challenge is degrading poverty and avoidable disease, especially in developing countries. This represents the continuation of a millennia-long human tragedy. I blame its current prevalence on a serious failure of vision among those with most responsibility for the current structure of the world's economic and political systems. One could quote the U.S. car bumper sticker: "if you understand, you're not paying attention".

The second challenge is global climate change due to greenhouse gas emissions. In fact the full effects of these emissions may have been masked so far because of "global dimming" due to more visible forms of atmospheric pollution. Climate change has the potential to become an even greater tragedy than the first challenge. Yet it is one whose worst consequences we may yet avoid, perhaps more easily than curing poverty.

Beyond these first two challenges are two others that seem especially troublesome to most "rich" OECD countries such as Italy and other EU/EEA member states. The third of the challenges is the "globalized" economy, with much freer movement of goods and capital contrasted with limited mobility of labour. This is leading to a relocation of industry — for instance, the "outsourcing" of Western manufacturing to China, and of service industries to India. Also to a change in the balance of power between capital and labour (for those of us who think that some sort of "class struggle" is still a relevant concept which may still be going on, despite the apparent overdue death of many other Marxist ideas.)

The last of the four major policy challenges is the international demographic imbalance arising from decelerating population growth, even population contraction, in some developed countries. This implies an increasing average age, and associated burden of

state support for old-age pensioners.

In short, the four challenges are:

1. global poverty and avoidable disease;
2. global climate change due to economic activity;
3. disruption caused by economic globalization;
4. demographic imbalances, especially in rich countries.

A key point is that these four challenges, as well as any likely solutions, are closely related in many ways. For example, the desire to escape poverty and disease provides a strong motivation for people to seize whatever small opportunities they may have for economic improvement. In this sense it can be a motivation for entrepreneurship, and for beneficial moves toward globalization. Just one illustration of this is the success of the Grameen Bank micro-credit movement, not least in enabling poor villagers access to modern means of communication such as cell phones and even the internet. Whatever some sceptical economists may think of its founder Muhammad Yunus, it is hard to imagine any other economist who better deserves the Nobel Peace Prize he was awarded in 2006.

Another illustration, with its tragic side, is the determination of many poor young people to seek their fortunes in wealthy OECD countries. This is despite the grave risks to their lives that may be needed to reach their destination. In this connection, the Italian economy as a whole has surely benefited from the willingness of many young people from the mezzogiorno to leave family and friends behind to make their way in the North.

On the other hand, global climate change is likely to exacerbate poverty and disease in some regions of the world. Both will add to economic disruption. Yet such disruption creates new opportunities for economic initiative, including technological innovation.

Demographic imbalances could do much the same. In any case, the only alternatives to an aging population are:

1. one which expands at a steady, or even expanding, proportional rate (as in Paul and Anne Ehrlich's *The Population Bomb*, a book written well before global climate change became the urgent concern it is now);
2. or the tragedy of a declining life expectancy (as in many African countries where HIV-AIDS is so widespread, or the Russian Federation since 1990).

## 2. A DYSTOPIAN SCENARIO: BUSINESS AS USUAL

### *Potential Pareto Improvements*

Or rather, economics as usual, as in the "Washington consensus". That is, advocating market liberalization, freer trade (though rarely freer migration), privatization of publicly owned enterprises, fewer distortionary taxes, lower tax revenue generally, less government intervention, fewer welfare programs for the poor, etc.

Any such liberalization, just like any other economic reform, rarely creates an *actual* "Pareto improvement" which makes everybody better off. Rather, there are always losers, often those least equipped to deal with the competitive forces of a market system. Instead, such a liberalizing reform *may* create a *potential* Pareto improvement. That is, if the

reform is accompanied by suitable policies for compensating those who would otherwise lose, then there could be a Pareto improvement.

#### *Incentive Incompatible Compensation*

Yet such compensation rarely occurs. In part, this is because the amount of compensation that each potential loser needs depends on private information. For example, a textile worker employed by a firm that is no longer competitive has skills which suddenly become very much less valuable. Such workers deserve compensation for their lost earning power. Enough compensation so that they are no worse off than in the status quo.

How much compensation this is depends on details such as liking (or disliking) the job, availability of alternatives, future career and retirement plans, etc. A smart worker seeking compensation will “game the system” by claiming a lifetime commitment to the job, planning to work overtime as much as possible, and to continue, even beyond normal retirement age, with no alternative career plans or prospects whatsoever. It is unlikely that the system can afford to meet such exaggerated claims. So compensation is bound to remain inadequate for anybody who really is like this.

#### *Four Challenges Exacerbated?*

Let me readily acknowledge that market liberalization has many widely acclaimed and legitimate benefits. These are reasonably well described, sometimes even understated, in many orthodox economics textbooks. The problem is that in key ways the four challenges may only be made worse by liberalizing policies. Specifically, I will claim that market liberalization may exacerbate:

1. poverty and disease, to the extent that the public programs that seem needed to combat these become de-emphasized;
2. greenhouse gas emissions and other forms of pollution, because again mitigating these often requires public policies seen as antithetical to market liberalization;
3. disruption to economic life, as alternatives to full-time employment by private firms in formal labour markets are reduced;
4. demographic imbalance, both in countries with many young (where educational opportunities in the public sector are reduced), and with many old (whose publicly provided pensions may be at risk, and whose opportunities to work part-time may also be reduced).

Then I will remind you of ways in which the various damaging effects of market liberalization on each of these four challenges may be mitigated by piecemeal national policy. Later, we will discuss briefly how policies designed to exploit some of the gains from globalization may be able to do very much better.

### 3. POVERTY AND DISEASE

The “Washington consensus” market-oriented approach to economic policy is likely only to add to poverty and disease. At least in the short run. The poorest families, on the margin of society, are the most in need of affordable medicine, hospital care, subsidized food, shelter,

water, clothing, heating and cooking fuels, etc. so that their children may survive and even thrive. They also need basic school education allowing those children who do survive and thrive to acquire sufficient rudimentary skills so that they can participate in the economy and so gain from any increase in economic activity. Cutting public services may alleviate public finances in the short run, but too often makes things much worse later.

### *Millennial Gestures*

To mark the year 2000 millennium, the United Nations Secretary General commissioned the Millennium Project which led to the Millennium Development Goals (MDGs), adopted by a consensus of experts from the United Nations, IMF, OECD and the World Bank. These are specific goals for reducing child poverty and mortality, and for halving the number of the world's truly poor (people earning less than \$1 per day), amongst many others. Though admirable in many ways, the policy instruments to be used in doing this were never spelled out at all precisely. So it may not be so surprising that the world seems far off the course that would be needed to meet these goals. As the UN Secretary-General Ban Ki-Moon felt compelled to write in his "Foreword" to *The Millennium Development Goals Report 2007*:

The world wants no new promises. It is imperative that all stakeholders meet, in their entirety, the commitments already made in the Millennium Declaration, the 2002 Monterrey Conference on Financing for Development, and the 2005 World Summit. In particular, the lack of any significant increase in official development assistance since 2004 makes it impossible, even for well-governed countries, to meet the MDGs. As this report makes clear, adequate resources need to be made available to countries in a predictable way for them to be able to effectively plan the scaling up of their investments. Yet, these promises remain to be fulfilled.

The Bill and Melinda Gates Foundation is just one particularly prominent private charity pursuing the very laudable aim, of improving the health of some of the very poorest amongst this globe's fellow inhabitants. Also, let us recognize that pharmaceutical companies earn most profit from producing drugs that are needed to ward off the effects of chronic disease among the rich who can afford to pay. There is little profit, from cheap vaccines for disease such as malaria. These will be administered just a few times to each patient in a poor country where paying a fair share of any research and development cost seems out of the question. For these reasons alone, the Gates Foundation fills a useful role.

### *Public Infrastructure*

A much less expensive health measure would be travelling "barefoot" doctors of the kind that seemed common in China during the Mao era. Yet the biggest contribution to the health of the very poor may come from simple preventative measures we take for granted in Europe. Clean water, not only for drinking, but for bathing. Sanitation too, of course, not to mention clean drains. In this connection, it may be worth remarking that Leland Stanford Junior, after whom the University is named, died in Florence in 1884 at the age of 16 of typhoid that he had caught in Constantinople. In 1966 when I travelled to Sardinia with two

Cambridge friends, I remember being inoculated against typhoid, though by then it may have been overkill. Anyway, probably this is one of the best targets for foreign aid, even though it may seem a very indirect way of raising daily incomes.

Literacy, including computer literacy, and numeracy are vital for participating in the modern economy at any but the most humble level. Academics tend to think that all education is good, but we need to be careful. My grandfather left school at about 14 and rose to a responsible senior management position in a manufacturing company with over 1000 employees in a Manchester suburb. My parents both left school at 16 for professional careers (though I cut my mother's short). Both served apprenticeships, in effect, even paying for the right to be trained on the job while studying for professional examinations. All these jobs would probably require a university degree these days. It seems a bad idea to train somebody as a doctor in Africa so that they can become a nurse's assistant in Europe, yet that seems to be too common a career path.

As for existing foreign aid, it seems to be a much less potent way of redistributing from rich to poor countries than the remittances that migrant workers send their families who remain in those countries. Typically, those remittances remain in private hands, whereas it is usually public infrastructure that needs most support. Nevertheless, the two would seem to be complements rather than substitutes in the development process.

#### 4. POLLUTION

##### *Power Generation: Dethroning Old King Coal*

In the UK the pollution from coal smoke has all but disappeared. Apart from some rural areas, perhaps, coal is no longer burned except in electric power stations with monitored anti-pollution devices. In the areas most subject to pollution, burning coal at home became illegal during the 1950s and 1960s. One had to burn pre-treated "smokeless fuel" instead. Gradually, coal-burning fireplaces were replaced by more efficient gas and electric fires. Central heating, even double glazing, has become the norm. A virtuous circle was created through a combination of direct controls, copying good technology from abroad, advertising, subsidies, etc. The same sort of circle could surely be repeated.

When we spent several months in Jerusalem in 1983, relatively small solar water heaters were already commonplace. Houses in sunny areas that are fitted with air-conditioning should be required to have solar power. Vehicles powered by batteries, wholly or in part, could be parked under solar panels that charge the batteries. This would also require less air-conditioning in those vehicles on hot sunny days.

Windmills have been around for centuries. The school in England I attended from 1958 to 1963 was built around an old windmill. The mill has survived, though the school has since been demolished to make way for houses. Wind power is often criticized for being available only when the wind is blowing enough. Yet windmills in England also have the advantage of providing power on windy days, when heating is needed most.

##### *Beyond Infernal Combustion to Hydrogen Hype and Ethereal Ethanol*

Over 100 years of development have gone into internal combustion engines, petrol or diesel. Car manufacturers and designers are still improving them, and reducing carbon

emissions, but only one small step at a time. To me it was already obvious in the late 1980s that the world needed, and could provide, all-in-one or multifunction printers combining printing, faxing, scanning, and photocopying. But the manufacturers seemed keen to hold things up for years, so that they could continue to sell several different machines. Only now are multifunction printers becoming commonplace. Similar obstructionism seems to bedevil vehicle technology.

Since I was a child, the UK has seen electric “milk floats”. These are small battery-powered trucks designed for the milkman to stop outside every house and deliver milk (and/or eggs) to the front doorstep. In the 1980s, even in the oil crazy US, the postal service had electric delivery vans for a similar reason. Since replaced by petrol vans that must get stopped and restarted several hundred times a day. Of course there used to be electric trams on rails, then trolley buses without rails, but tied to overhead wires. Even in Los Angeles, until the oil companies bought up the rights of way and converted them into freeways. California also saw electric cars, for several years. They could be leased from General Motors and other firms, but when these firms wanted them off the road a few years ago, the leases were terminated and the lease holders required to give up their vehicles.

The current US plan seems to be a “great leap forward” (my words, following Chairman Mao) to an entirely unproven technology, involving compressed hydrogen produced using who knows what source of power. Or propping up US agriculture by converting corn (i.e., maize) into ethanol. Brazilians, of course, have been converting sugar cane into ethanol for years, which is surely more efficient. Other crops such as switchgrass perhaps even more so. The ideal might be hemp, except that it contains trace amounts of the chemical needed to produce cannabis or marijuana. It has been said that one would need to smoke a telegraph pole of hemp to produce a “high”. Yet its cultivation remains tightly controlled.

Also very efficient are the modern diesel-electric railway locomotives that have also been around for almost 50 years. The same idea is behind the currently fashionable “hybrid”, which is really just a diesel-electric car, in effect. Even better is a “plug-in” car that may not need fuel at all, as long as it runs no more than about 100 miles a day so one overnight charge is enough. Indeed, on those too frequent occasions when there is a power cut, why not start up the car to power the house, probably more efficiently than the typical diesel generator? And is there any reason why the diesel engine should not be powered by efficiently produced ethanol?

Finally, would it not be possible to have retractable solar panels? These can be deployed when a car is parked in the sun, both to charge the battery, and possibly to provide useful shade. Why wasn't a plug-in diesel hybrid car with solar cells designed and engineered ten years ago, so I could buy it right now? Could it be for the same kind of reason that held up the appearance of all-in-one printers for so long?

### *Carbon Taxes versus “Cap and Trade”*

The first part of this section was intended to make the case that reducing CO<sub>2</sub> emissions

significantly, without greatly affecting our way of life, is not so unreasonable a policy requirement. The key, of course, is to allocate abatement activities efficiently through appropriate economic incentives, including penalties for those who continue to pollute.

Carbon taxes would be a fine way of doing this, charging fuel producers a tax for each tonne of carbon they sell in fuel that will be burned to produce carbon dioxide. Barring minor variations due to different isotopes of carbon (and oxygen), each tonne of carbon produces the same quantity of CO<sub>2</sub>. Of course, a fuel can be burnt improperly to produce polluting carbon soot, or even worse, highly toxic carbon monoxide (CO). But taxes are politically unpopular. Also, even if it were called something else, it is not clear that fixing the tax (effectively the price of carbon emission) is best. Or rather fixing the tax each year, presumably rising over time to encourage more CO<sub>2</sub> abatement, as technological advances make this easier in future.

Following the requirements of the Kyoto Protocol, the EU has preferred to go for an emission trading scheme. Such schemes have worked rather well in the US for sulphur dioxide (SO<sub>2</sub>) emissions. However, just about all SO<sub>2</sub> emissions come from coal burning power stations, so monitoring them is relatively easy. By contrast, a comprehensive scheme of emissions permits would require each car owner to pay! Yet what's the point? Easier by far to have the fuel producer collect the emissions charges that the fuel burner would pay for the inevitable emissions. And pay those to the authorities for the right to produce the fuel that will produce carbon dioxide when burnt.

### *The Globe Choked Rather than Warmed?*

Of course, in a dysfunctional scenario of "business as usual" it is not just greenhouse gas emissions that rise. So do local pollution, congestion, noise, etc. Except in a few rare cases, liberalized markets have priorities that come before environmental protection. Chinese growth could be seen as rapidly taking us toward disaster, were it not for the fact that, just as the UK in the 1950s they are starting to worry about the local pollution from burning coal. The Manchester coal smoke that probably caused one of my grandfathers to have chronic bronchitis, and may have hastened the other's fatal heart attack, is gone. The English Midlands round Birmingham and Coventry is no longer the "Black Country" it was in 1950s. One hopes to see, sooner rather than later, similar changes in China, India, and other rapidly industrializing regions of the world.

Of course, in a dysfunctional scenario of "business as usual" it is not just greenhouse gas emissions that rise. So do local pollution, congestion, noise, etc. Except in a few rare cases, liberalized markets have priorities that come before environmental protection. Chinese growth in particular could be seen as rapidly taking us toward disaster, were it not for the fact that, just as the UK in the 1950s, they are starting to worry about the *local* pollution from burning coal. The Manchester coal smoke that probably caused one of my grandfathers to have chronic bronchitis, and may have hastened the other's fatal heart attack, is long gone. The West Midlands region of England around Birmingham (and near the University of Warwick) may still allow itself to be called the "Black Country", but the predominant colour of the air these days is very different from how I remember viewing it

from a distance in the 1950s. One hopes to see, sooner rather than later, similar changes in China, India, and other rapidly industrializing regions of the world.

## 5. LABOUR MARKET DISRUPTION

### *Pecuniary Externalities*

After a lengthy detour to discuss pollution in general, and global climate change in particular, we come back to liberalizing economic policy reforms. By causing price changes, these reforms create what economists call “pecuniary externalities”. Put simply, such changes affect people who, in the status quo without the policy change, buy or sell goods whose prices are changed as a result of the policy change. Specifically, those who would buy a good whose price rises are harmed, whereas those who would sell that good are benefited.

Such pecuniary externalities seem especially savage when they force businesses to close down and lay off their workers. Especially if those workers have highly specific skills that are not easily adapted to new jobs in other industries. Speaking of “disruptions” to the labour market is no exaggeration from these workers’ point of view. But why are the disruptions so severe?

### *The Inharmonious Blacksmith*

Adam Smith’s simple model of the “division of labour”, limited by the “extent of the market”, has the labour market segmented into specific tasks. Often these are carried out by self-employed artisans such as the blacksmith, fashioning horseshoes from molten iron with his hammer and anvil.

An individual blacksmith or other artisan can remain well attuned to market conditions provide sales are predictable, preferably robust. But harmony breaks down if business collapses because fewer horses need shoeing. Specialization initially created an occupation. But this gets blown away later in the gale of what Schumpeter called “creative destruction”. And it really matters to the unfortunate blacksmith if this was his only source of income.

### *Fixed Costs for Each Employee*

For every worker whom a firm hires there are fixed costs of providing a personalized work space, a uniform, some other piece of equipment like a computer, of maintaining employment records, of arranging wage payments, etc. These are *fixed costs* of employment that must be covered, even if the employee works only a single hour in a week. There are also the extra fixed costs associated with government regulation of employers, such as their national insurance contributions, and other statutory record keeping requirements.

These fixed costs of employment make it better for most employers if each employee works “full time” for a single firm. “Moonlighting” by working for another firm is usually strongly discouraged, especially if it is done by working fewer paid hours with the original employer. Some senior employees may travel from branch to branch of a multi-branch firm, but that is because of their specialized job.

Employees themselves may concur somewhat with these arrangements. They may live far from work. So they incur significant commuting costs proportional to the number

of days they work, though not the number of hours. Then, however, they may well prefer to work fewer days each week than the employer wants, even for the same number of hours. The result is likely to be a work day that is longer than the workers might really like, together with fewer holidays. That seems to be what has happened in the UK and US. Though not in France, with its recent experiment with the 35 hour week. Another effect is a sudden transition from full employment to complete retirement, which may not be ideal for either employer or employee.

The key point, however, is that the modern worker is often as vulnerable to general economic conditions as was the blacksmith of old.

## 6. PENSIONS AND SOCIAL SECURITY

### *State Pensions: Some Unique Advantages*

Old age pensions provided by the state can be seen as welfare payments that have little effect on incentives to work. They may, though, affect private saving. Indeed, they should if they are to be truly effective. They were originally designed to rescue the (rather few) old from poverty. Or from reliance on charity (including within the family).

Unlike most private pension schemes, a pay-as-you-go state-founded social security system can offer considerable protection from adverse macroeconomic shocks. Especially if reserves are accumulated in good economic times so there is a reserve to be depleted in bad times. There is obvious protection from recession, which would otherwise lower nominal returns to somebody forced to take out a private pension at the wrong time.

Moreover, the state should find it easier than private companies to institute a cost-of-living adjusted scheme that affords some protection from inflation, which would otherwise lower real returns. Probably inadequate protection, however, since a cost-of-living scheme in most countries uses a general consumer price index. Yet most old-age pensioners may benefit less than the general population from price reductions for goods such as computers, televisions, etc. They may also find it harder to adjust to relative price changes. This is implicitly acknowledged in the UK, for example, which offers older people a “heating allowance” to help meet their fuel bills. On the other hand, the old who have free bus passes are not harmed at all by price increases for public transport. On balance, a general consumer price index seems likely to understate the effect of inflation on the old. Especially in countries like the US where they receive fewer free public services.

These feedbacks from the state of the macroeconomy to likely levels of benefit, as well as to the cost of the system, are obviously important. Yet such feedbacks, and even uncertainty about the macroeconomy, are largely neglected in the discussions I have seen.

### *State Pensions: Some Disadvantages*

The way that overall state pension payments depend on personal work and earnings history is also crucially important. Because of such feedbacks, a state-funded social security system, like any system of welfare payments, probably works best when restricted in scope. It should offer a (generous) minimal guarantee that supplements rather than replaces private schemes. Those who can afford to save are then encouraged to do so. And could be encouraged more with tax breaks. Those who cannot realistically afford to save can be kept

above the poverty line even when there is no realistic alternative to full retirement.

Of course, private pension schemes need wise regulation, if only to prevent fraud and offer guarantees. There could also be action to encourage better annuity markets and other suitable financial instruments.

### *Unfunded Obligations*

Still to be addressed is the major problem of unfunded obligations to older workers and existing pensioners. It is time for governments too to do their accounting more honestly, and include these enormous unfunded liabilities. Servicing this part of the (true) national debt is going to be no less burdensome than servicing the part due to education, health, etc. But there is no reason for it to be more burdensome either!

Suppose the young insist on fewer “wasted” contributions to state schemes. So we move toward a scheme with a state-funded minimum pension supplemented by private arrangements. Then they should hardly expect generous bequests as well. Much heavier estate and gift taxes seem sensible. Or property taxes, if complicated tax laws make estate taxation essentially voluntary (as they do in the U.S.)

To help pay these (much?) higher property taxes, the old may need to take out “reverse mortgages”. In exchange for a lifetime annuity, these assign the house or other property to a mortgage company upon the occupant’s decease. Perhaps accompanied by a death benefit to cover funeral expenses, which is a useful arrangement anyway.

## 7. GLOBALIZATION AS AN OPPORTUNITY

Globalization is often seen as a problem, or threat, to the comfortable living standards of our Western lifestyle. Global climate change, however, is surely much more of a threat unless we do something about it, perhaps along the lines proposed in last Autumn’s Stern Report prepared for the UK government. In any case, the way to deal with such threats is to make better use of the possibilities presented by a more integrated global economy.

During the Great Depression of the 1930s, it was said that there must be something wrong with an economic system that allowed workers to starve while farmers could not sell their crops. Today, there seems to be something equally wrong with a global system where youth unemployment remains a serious problem, while so many people in poor countries cannot meet basic needs. All too often the arms industry finds no problem selling to such countries. Is there no way of channelling what they can afford for arms to other goods that seem much more useful?

What Keynes regarded as deficient effective demand might be seen better as a failure in the credit markets. The 1930s seen as a severe “credit crunch”. Without credit, the starving unemployed could not afford to buy food from farmers; without credit, farmers needed immediate cash payment for their crops. These days workers in developed countries should worry who will pay their pensions, while many in poor countries would love to improve their lot. Enriched global capital markets could allow retirees to be paid out of profits earned in poor countries.

Few state pension funds allow this to happen. Perhaps only Norway's, whose government is investing its vast oil and gas revenues abroad — thereby also avoiding the “resource curse” that bedevils many other countries with such large natural resource stocks. Currently, one advantage of private pension schemes (though not the one set up in Chile) is that they can be internationally diversified much more easily, at least in principle .