1 Introduction
Professor Sinn has provided a stimulating and provocative talk. It describes a scenario in which the new systems competition leads to a crisis for some of our most cherished public sector institutions. Perhaps to provide a rallying call to action, it promotes this outcome as inevitable. The purpose of this discussion is not to dispute the forces at work, but instead to review mechanisms through which they may be moderated or even beneficial.

It should be recalled that these issues of systems competition are not new. The 1944 Bretton Woods Agreement can be seen as a milestone in providing a transnational agreement that, although liberal in some respects, prevented a race to the bottom through the use of capital controls. Keynes, the chief British negotiator commented “Not merely as a feature of the transition but as a permanent arrangement, the plan accords every member government the explicit right to control all capital movements. What used to be heresy is now endorsed as orthodoxy.”

Then, as now, transnational institutions were seen as the natural solution to the problem of externalities in inter-regional competition.

2 Observations and Consequences
To provide a basis for my discussion, I draw from Sinn’s paper a simplified statement of the main thesis and the consequences that follow from it.

The central thesis is that competition between economic systems (capitalism versus democracy) has been replaced by competition between large trading blocs and

\(^1\) Gardner (1980).
between countries within those trading blocs. This competition involves attracting mobile factors of production by inducements such as lower tax rates. The degree of competition is enhanced by the increased mobility of capital and labor, both of which can now more easily move to exploit economic advantage. For the European Union countries, this is especially true since the completion of the Single Market.

Sinn notes that governments are designed to intervene to offset market failure within countries. Consequently, when the market failure arises in interactions between countries, there is no natural authority to make the necessary corrections. The unregulated competitive process may therefore fail at this level of interaction and hence not deliver what is efficient.

Two major consequences follow from this:

*Firstly*, tax competition will occur as jurisdictions compete for the mobile factors of production. This is seen as applying particularly to capital and to be reflected in the process of decreasing capital tax rates that have recently been witnessed in several countries.

*Secondly*, the movement of labor is expected to overwhelm welfare systems as people engage in benefit shopping. This is especially important for the European Union with its enlargement to the East.

Both these consequences can be summarized as having the nature of a “race to the bottom” as governments cut taxes and public good provision in order to compete. Such ideas have received much attention in areas of the economic literature as diverse as environmental management and financial regulation. At the heart of all of this analysis is the general idea that the policy choices of countries impose negative externalities upon others. Unless regulated, an advantage accrues to those who cut their standards and this pressurizes others to do likewise. Consequently, all will cut standards (degree of regulation, rate of tax, benefits paid *etc.*) to the general detriment. This is just a reflection of the usual conflict between private and social benefits that always arises in the presence of externalities.

The outcomes described in Sinn’s paper are perfectly possible and may well happen. However, this is by no means certain and a range of policy options is available to mitigate the consequences. After a brief review of some salient data, the following sections will suggest reasons why some of the effects may be beneficial, describe theoretical results that provide cause for hope and discuss some policy proposals.

**3 Basic Data**

This section provides some data to illustrate the extent to which taxes on capital have declined and the potential for labor mobility within an enlarged European Union.
3.1 Capital Taxation

A review of the statutory tax rates leaves no doubt that they have fallen steadily in a number of countries in the last few years. Care must be exercised though before it is concluded that this indicates a reduction in the effective tax upon capital since the statutory burden and the actual burden can be quite different.

There is no doubt that the revenue raised from capital taxes has been low relative to the potential tax base. This is probably due to the difficulty of defining liability in a way that prevents widespread avoidance (and probably some evasion). What matters for the effect of a tax change is the elasticity of revenue with respect to the statutory rate, and this may well be greater than one. If it is, with lower rates reducing the incentive to avoid, revenue may rise as the tax rate falls.

To provide some insight into this, figure 1 plots United Kingdom revenue from capital taxes as a percentage of GDP over the period 1982 – 2001. The trend line in the figure shows that there has been a general decline in these revenues over the period. So over this twenty year period the hypothesis is supported and capital taxes decline both statutorily and effectively.

![Capital Tax Revenues](Image)

**Figure 1:** U.K. Revenue from Taxes on Capital as % of GDP  
(Source: Economic Trends, 2001 (National Statistics))

It might be expected that if tax competition is driving down capital tax rates, the process would have accelerated since the completion of the Single Market in December 1992. To test this idea, consider the data in figure 1 since 1993. It can be seen in the figure, and easily confirmed by plotting the data, that the effective burden on capital has actually risen since 1993 – the converse of what the tax competition argument would suggest.

This discussion just illustrates a very standard observation: considering statutory rates of tax never tells the full story of tax incidence. What is really relevant for economic analysis is the actual incidence and burden of the tax. A cursory glance at statutory rates may support the tax competition argument but it requires a comprehensive analysis of the
actual burden to convincingly prove the point. As the figure above suggests, there may be some surprises when the latter is undertaken.

3.2 Potential Migration
One of the most disturbing claims of the paper is that migrants will overwhelm the welfare systems of the existing European Union countries once the union is extended to the East. As a first step in establishing this argument, it has to be shown that sufficient incentives exist for such migration to take place.

The standard representation of migration in economics is that it will be driven by a combination of pure economic factors and an attachment to homeland. These ties to homeland rule out a situation of perfect mobility in which movements of labor occur in response to even the smallest of economic advantages. Although it is difficult to directly evaluate the value of these ties, so that a complete picture of potential migration cannot be obtained, at least the size of the economic factors can be detailed.

Table 1 provides data on average incomes (measured by GDP per capita) in some existing European Union members (top row), some of the potential “first-wave” of Eastern European new members (centre row) and some of the potential “second-wave” new members (bottom row). One point is strikingly clear from this table. Average incomes in the existing member countries are several magnitudes higher than those of potential members. In fact the United Kingdom, which is fairly representative of the European Union in this respect, has average income seven times that of Turkey and fifteen times that of Romania. It is clear that these simple figures support the contention that migration will be a very significant issue if the European Union does extend to the East. The financial incentives exist and are substantial. Significant migration is therefore a distinct possibility.

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per capita</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>£18,392</td>
<td>8.14m</td>
</tr>
<tr>
<td>Belgium</td>
<td>£17,397</td>
<td>10.14m</td>
</tr>
<tr>
<td>France</td>
<td>£16,596</td>
<td>58.68m</td>
</tr>
<tr>
<td>Germany</td>
<td>£18,212</td>
<td>82.13m</td>
</tr>
<tr>
<td>Spain</td>
<td>£9,665</td>
<td>39.63m</td>
</tr>
<tr>
<td>U.K.</td>
<td>£14,676</td>
<td>58.65m</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>£3,530</td>
<td>10.28m</td>
</tr>
<tr>
<td>Hungary</td>
<td>£3,092</td>
<td>10.12m</td>
</tr>
<tr>
<td>Latvia</td>
<td>£1,659</td>
<td>2.42m</td>
</tr>
<tr>
<td>Lithuania</td>
<td>£1,741</td>
<td>3.69m</td>
</tr>
<tr>
<td>Slovakia</td>
<td>£2,536</td>
<td>5.38m</td>
</tr>
<tr>
<td>Turkey</td>
<td>£2,166</td>
<td>64.48m</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>£836</td>
<td>8.34m</td>
</tr>
<tr>
<td>Romania</td>
<td>£932</td>
<td>22.47m</td>
</tr>
</tbody>
</table>

**Table 1: GDP per capita and population**
(Source: The Economist)

4 Grounds for Optimism?
The previous section has detailed some facts that are in broad agreement with the general hypothesis of the effects of systems competition. The consequences, though, need not be as bad as suggested. Two reasons why are now described.
4.1 Tax Differentials
One of the effects of the race to the bottom is that tax rates are reduced through tax competition and that tax differentials will not be maintained in the long-term. This is especially true when there is mobility and a single market.

In addressing whether these claims are correct, the United States makes an interesting case study. There is clearly mobility of labor (though not the income differentials identified between European Union countries and potential members shown in table 1) and a single market. Individual states are able to set their own income and sales taxes, and cities and counties can add their local taxes on top of the sales taxes.

Table 2 provides data on tax rates in ten U.S. states (actually the first ten in alphabetical order). These clearly illustrate substantial differences between the rates of both income taxes and sales taxes. If a suitable metric were adopted, these differences are likely to exceed the differences observed across the European Union countries. In fact, there are five states with a sales tax of 0% (Alaska, Delaware, Montana, New Hampshire and Oregon), although the highest city tax was 7% in Wrangell, Alaska. The highest combined sales tax rate was 11% in the city of Arab in Cullman County, Alabama and the highest state tax was 7.25% in California.

To these observations should be added the fact that, rather than declining, the sales taxes have had a tendency to rise. Bell (2002) notes that there were 18 consecutive years of increase in the average combined rate (state plus local) until an all-time high of 8.251% was reached in 1998. The average combined rate fell to 8.231% in 1999 but increased again to 8.235% in 2000. Furthermore, the rates have been sustained even with the advent of Internet shopping that effectively allows tax-free shopping in all locations (see Goolsbee, 1999).

<table>
<thead>
<tr>
<th>State</th>
<th>Income tax rates %</th>
<th>Income brackets $</th>
<th>Personal exemption $</th>
<th>State sales tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>High</td>
<td>No.</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Alabama</td>
<td>2.0</td>
<td>5.0</td>
<td>3</td>
<td>500</td>
</tr>
<tr>
<td>Alaska</td>
<td>No state income tax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td>2.87</td>
<td>5.04</td>
<td>5</td>
<td>10,000</td>
</tr>
<tr>
<td>Arkansas</td>
<td>1.0</td>
<td>7.0</td>
<td>6</td>
<td>2,999</td>
</tr>
<tr>
<td>California</td>
<td>1.0</td>
<td>9.3</td>
<td>6</td>
<td>5,454</td>
</tr>
<tr>
<td>Colorado</td>
<td>4.63</td>
<td>Same</td>
<td>1</td>
<td>Flat rate</td>
</tr>
<tr>
<td>Connecticut</td>
<td>3.0</td>
<td>4.5</td>
<td>2</td>
<td>10,000</td>
</tr>
<tr>
<td>Delaware</td>
<td>2.2</td>
<td>5.95</td>
<td>7</td>
<td>5,000</td>
</tr>
<tr>
<td>Florida</td>
<td>No state income tax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>1.0</td>
<td>6.0</td>
<td>6</td>
<td>750</td>
</tr>
</tbody>
</table>

Income bracket ranges generally are for single taxpayers, tc = tax credit
In some states, local sales taxes are levied on top of state rate.

Source: www.bankrate.com

What conclusions can be drawn from this? Overall, this evidence seems difficult to dismiss easily. What it appears to show is an outcome in which tax competition has not
resulted in a race to the bottom but instead one it which an equilibrium has been established with diversity in rates reflecting local preferences. One might even be tempted to argue that this reflects the efficiency claimed by the Tiebout Hypothesis (see 5.2 below). If so, then the damaging effects of tax competition will only apply in Europe if there is something significantly different between Europe and the United States. It is not immediately clear what this difference might be. One argument could be that factors are less mobile in the U.S., though this does seem unlikely. Applied to sales taxes, such an argument makes no sense since the Internet makes cross-border shopping potentially available to all consumers which should have further reduced the differentials.

4.2 Welfare Systems
The paper under discussion noted that most new immigrants are net recipients of benefits for the first ten years of residence. The question then, is whether the benefit system will survive the possible influx.

For some time it has been acknowledged that one of the major difficulties facing the welfare systems of Western countries is the increase in the dependency ratio facing state pension schemes (see Miles (1999)). This is due to both increased longevity and the decrease in the birth rate. It is predicted that the relatively smaller working population will face increased difficulties in supporting pension payments to the retired. This trend is illustrated in figure 2.

![Figure 2: Population Structure of the Western Europe](From Miles (1999))

Given this observation, the potential benefit of inward migration becomes clear. If the inward migrants are working-age individuals then the dependency ratio will be reduced. This may allow the continued functioning of the existing pension schemes until reforms can be introduced that remove the long-term difficulties. Hence, rather than immigration being the end of the benefit system, it might actually be its savior.
5 Theory
The practical observations of the previous section can be supported by some theoretical observations. These are no briefly described.

5.1 Optimal Capital Taxation
Optimal tax theory attempts to determine the “best” tax structure according to some given measure of economic welfare. One of the most important recent results in this area is that of Chamley (1986) and its extension in Lucas (1990).

In an infinite-horizon model with optimizing agents, Chamley shows that a zero rate of tax on capital will be the optimal policy in the long run. It may initially be positive but will then decline along the equilibrium growth path. The tax burden transfers gradually to labor. If this does characterize the optimal policy, then the reductions that have been seen may just be movement along the equilibrium path to the long-run optimum. If they are, then the decrease in rate is to be approved rather than criticized.

Care, of course, must be exercised in putting too much faith in a result of this kind. The economy in which it is derived is very stylized and requires intertemporal optimization by the single consumer and the government. In addition, there is no natural way in which to interpret the long run, and even less to believe that we are currently converging to it.

5.2 The Tiebout Hypothesis
The seminal contribution of Tiebout (1956) established the hypothesis that competition between regions (in their choice of taxes and government provision) would lead to an efficient outcome. In essence, by voting with their feet between competing jurisdictions individuals would simultaneously reveal their preferences and join a jurisdiction that was optimal for them. This process leaves no scope for inefficiencies to arise or for a race to the bottom to take place.

A particular version of the Tiebout hypothesis can be found in Myers’ (1990) work on tax competition. If labor is perfectly mobile, then it can move to benefit from the smallest differences in regional incomes. Whatever one region does is then to the advantage of all consumers. Hence any inter-regional externality is eliminated. This simple mechanism can allow efficient taxes to be sustained even if regions are competing. Although Myers phrases the analysis in terms of labor mobility, it clearly also applies to perfectly mobile capital.

How important are these results for rescuing the efficiency of the new systems competition? Tiebout’s hypothesis has been subject to considerable criticism (see, for example, Bewley (1981)) and has proved a difficult hypothesis to formalize. What is clear is that it relies on fairly extreme assumptions on mobility and the availability of potential jurisdictions in order to generate the efficiency argument. However, even if reality does not conform to the required conditions of the theory, this does not say that the forces identified by Tiebout are not at work in an imperfect world.
5.3 Inter-regional Transfers
The fundamental problem of systems competition has already been identified as one of externalities. The standard response to solve such market failure is to institute a system of Pigouvian transfers between regions that precisely offset the external effects. An active centre, such as the EU or the U.S. federal government, can undertake such transfers between member countries or states in order to internalize the tax competition externalities.

On the surface, these transfers would seem to be unlikely to be implemented since although socially desirable they seem not to be individually rational. If this is the case, it would therefore seem difficult to obtain consensus on their implementation. However, the argument in Hindriks and Myles (2002) demonstrates that regions may find it in their own interests to voluntarily provide such transfers. This finding is representative of the general class of observations that mutually beneficial (though individually damaging behavior) can be sustained in equilibrium when decisions are taken in separate stages.

Taken at a very literal level, it is in the nature of the European Unions that regions pay to the centre and receive transfers back from the centre. The two need not balance, however, thus generating transfers between regions. This process can be interpreted as having some of the features of a system that can internalize the externalities of tax competition.

6 Policy
The arguments so far have attempted to limit the potential damage of the new systems competition by appealing to the U.S. situation, the potential benefits of immigration and to theoretical results. These can provide some hope that the outcome may not be as bad as predicted but they are not entirely compelling. Attention now turns to possible policies that can be implemented.

The basic requirement of policy is to internalize the externalities wherever this is possible and to protect welfare systems against excessive demands. Tax externalities can be internalized by the inter-regional transfers already discussed. Within a trading-bloc such as the European Union these can be made an explicit response to reduce the consequences of tax competition. To do this successfully, the center has to understand its role and to make its objectives clear.

An alternative solution is the harmonization of taxes. This was a key policy of the European Union in the 1980s (see Keen, 1993) which went some way to lessening differentials in commodity taxes. However, it no longer seems to be actively pursued. Harmonization has its problems in that it is perceived to lessen the degree of domestic control over taxation and the freedom to run independent tax policy. If it is to work though, these political difficulties may have to be put aside in order to achieve the benefits of higher levels of taxation.
If competition is across trading blocs, it becomes more difficult to achieve a solution. The obvious solution is to introduce some transnational body to oversee and coordinate policy or else hope that a solution will emerge naturally. Sandler (1997) describes the many global problems that have been confronted and solved by either formal agreement or through voluntary cooperation. Not all such agreements have been successful; the recent decision of the U.S. and Australia not to ratify the Kyoto agreement shows some of the difficulties that can arise.

The problem of immigration and welfare payments can be responded to in several ways, even accepting the principle of the free migration of labor. It is possible to restrict some benefits to only existing residents, or at least phase in entitlement so that there is no immediate major effect of immigration. A more expensive, and longer term, option would be to discourage migration by raising average incomes in the eastern countries. This is the role that regional development has already played within the European Union. The difficulty facing this policy is that the income differentials it is confronting are so much larger than anything challenged in the past. For example, even if income in the U.K. were to remain constant, it would take Latvia 23 years at 10% per annum growth to catch up.

Mention has already been made several times of the role of inter-regional transfers. The European Union could engage explicitly in such transfers in order to fund welfare payments in the lower income members. Effectively, this would involve paying the poor to stay at home rather then migrate and consume benefit payments elsewhere. The providers of the funds would benefit since its removes from them the burden of immigration. The recipients would also benefit as they would not lose their working age population and therefore retain a basis for development.

7 Conclusions
The challenges presented by the new systems competition are daunting and the worst-case scenario brings significant consequences. However, the outcomes do not seem to be entirely inevitable. This discussion has touched upon a range of reasons, both practical and theoretical, why this is so. There is also a range of countervailing policies that can be introduced. Some of these are protectionist, but protectionist of social security systems and benefits rather than industries. Others appeal to the role of transnational authorities to provide cover for the inefficiencies that emerge between governments.

References


