Lecture Notes: Systems Competition III: Globalization and the Welfare State

Marko Köthenbürger

December 15, 2005

1 Why Income Redistribution?

In principle individuals would like to see a welfare state in place because

- their income is very low (ex-post redistribution)

- their income is not low, but they view the welfare state as an insurance mechanism against uninsurable income risks (ex-ante redistribution).

The first motive is the typical redistributive motive encountered in public debate.

The second motive is legitimated by the goal of increasing allocative efficiency.

To what extent the different motives explain the size of the welfare state is difficult to answer.

One way to gage the relevance of the second motive would be to examine the link between private insurance demand and the size of the welfare state.

The idea is that whenever the state is viewed as an insurance device, private insurance is crowded out (see Sinn, 2003).

1.1 Redistribution and Mobility

A widely asked question is to what extent household migration affects the fiscal sustainability of the welfare state.

To assess the empirical relevance of migration for public policy, it does not suffice to look at actual migration flows.

The reason is that the "threat" of migration may already lead to policy adjustments (e.g. migration restrictions,

generosity of welfare payments) in the potential country of destination.

Boeri and Brücker (2005) calculate the migration *potential* from eight new EU member states to the EU-15.*

For instance, the projection of net migration to Germany is 156 thousand persons in the year after the removal of migration barriers and 169 thousand in the second year - see table 10 in Boeri and Brücker.

Note, the projected amount of migration may not be observed, but nevertheless shapes public policy.

In what follows we will discuss the model in Sinn (2003) in which the potential to migrate has a strong impact on the size of the welfare state.

*Boeri, T. and H. Brücker (2005), Why are Europeans so Tough on Migrants? Economic Policy, October, 631-703.

1.2 Model in Sinn (2003)

Production function: $f(K, L)$

$\Rightarrow f_K(K, L) = r, \;\; f_L(K, L) = w$

Citizens are risk-averse.

X denotes individual labor supply in efficiency units

X is a random variable, and $X = \theta_1\theta_2$, where $E(\theta_1) = E(\theta_2) = 1$

- θ_1 reflects inborn characteristics (laziness, ability, health)

- θ_2 later reasons for wage variations (health)

θ_1 and θ_2 are independent

- over "time" $\Rightarrow EX = 1$
- and across individuals

In a large economy aggregate labor supply in efficiency units L is equal to the number of workers.

Individual risk, which is identical for all individuals (the risk of having a fire etc.): C

Individual assets: $\overline{K}$

Individual income (gross of taxes and transfers): $Y = \theta_1\theta_2 w - C + r\overline{K}$

The tax rate on labor: ω

Insurance potential:

The private market can easily take care of the risk in C by offering a fair premium: $\beta E(C)$ where β is the freely chosen degree of coverage (when risk-averse, citizens want $\beta = 1$).

Insuring against θ_2 is troublesome (because of moral hazard which gives a break down of the market, etc.) and to insure θ_1 is impossible.

$\Rightarrow$ So assume for simplicity that both types of risk cannot be privately insured.

1.2.1 A model of closed borders

Since government incomes are assumed to go back to citizens, the government budget constraint is:

$$T = \omega w$$

The income is equal to

$$Y = \theta_1 \theta_2 w(1 - \omega) - E(C) + T + r\overline{K}$$

The mean and standard deviation of Y is:

$$E(Y) = w - E(C) + r\overline{K}$$

$$S(Y) = S(\theta_1 \theta_2) w(1 - \omega).$$

- $\frac{\partial E(Y)}{\partial \omega} = 0$

- $\frac{\partial S(Y)}{\partial \omega} < 0$

Punchline: Since agents are risk-averse a more generous welfare state (as measured by ω) increases expected utility.

What is important of course is that a renegotiation of the "contract" after the type is revealed is not feasible. That is, people that turned out to be healthy and clever (having $\theta_1 > 1$ or $\theta_1\theta_2 > 1$) should not be able to claim back the payment they have made to the less fortunate.

Note also that this is a partial analysis. Fully eliminating income risk ($\omega = 1$) would be first best. But there are of course other aspects of this problem (moral hazard).

1.2.2 A model of open borders

Assume now labor and capital are mobile.

Individuals can choose the country of residence after they have learned the realization of θ_2.

There are n identical countries.

With full mobility we have

$$r_i = r_j \ = r,\, w_i = w_j = w \quad \forall i, j$$

and migration ensures that for any $\theta_1\theta_2-$type individual

$$\theta_1\theta_2 w(1-\omega_i) + T_i = \theta_1\theta_2 w(1-\omega_j) + T_j \quad \forall i, j.$$

As $T_i = \omega_i w$ the left-hand side becomes

$$\theta_1\theta_2 w(1-\omega_i) + T_i = w(\theta_1\theta_2 - \omega_i(\theta_1\theta_2 - 1))$$

Hence,

$$w(\theta_1\theta_2 - \omega_i(\theta_1\theta_2 - 1)) = w(\theta_1\theta_2 - \omega_j(\theta_1\theta_2 - 1)) \quad \forall i, j$$

For the equilibrium condition to hold it is necessary that the tax rates are equal. However, each country has incentives to undercut the neighbour's tax rate.

By doing this, the unfortunate people leave the country, and fortunate people from other countries come in.

With the "threat" of migration the welfare state cannot survive.

Equilibrium policy is undesirable not only from a distributional point of view, but also from an efficiency perspective (recall that $S(Y) = S(\theta_1\theta_2)w(1-\omega)$) and we just found that $\omega = 0$ in systems competition).

$\Rightarrow$ The "inclusion principle" is therefore not optimal according to this theory.

Policy implications:

If national governments are only concerned about the welfare of the domestic population, they may optimally impose migration barriers.

Empirical support in the EU: see figure 1 and 2 in Boeri and Brücker (2005).

Are there other policies which allow for migration (and therefore for the potential gains), but fiscally sustain the welfare state?

- Harmonization of taxes.

- Principle of delayed integration - see Richter (2004) and Sinn (2004) for a detailed discussion.*

*W. Richter (2004), Delaying Integration of Immigrant Labor for the Purpose of Taxation, Journal of Urban Economics 55, 597-613.
H.W. Sinn (2004), EU Enlargement, Migration and the New Constitution, CESifo Economic Studies, 50, 685-707.

1.3 Globalization and the Welfare State: Alternative Views

The literature has also identified other channels via which globalization affects the viability of the welfare state.

1. Wildasin (2000)*: Globalization may reduce demand for public insurance as it allows for re-location in response to a negative income shock at the industry level

$\Rightarrow$ as a by-product incentive to acquire industry-specific skills are strengthened.

2. Rodrik (1998)*: Globalization increases the exposure to risk $\Rightarrow$ more demand for public insurance.

*Wildasin, D.E., 2000: "Labor-Market Integration, Investment in Risky Human Capital, and Fiscal Competition." American Economic Review 90, 73–95.

*Rodrik, D., 1998: "Why Do More Open Economies Have Bigger Governments?" Journal of Political Economy 106, 997-1032.