Notes on Liberalization

Econ 497

Spring 2005

1. Liberalization

We start by thinking about how an economist views liberalization. Suppose that prior to liberalization the economy has prices that are distorted from world prices. There are two sectors, producing two goods, traditional and modern (could be raw materials and industry, or heavy industry light industry, etc.), and production is initially at point E in figure 1. Notice that point E is on the production frontier which implies that production is feasible. So this is departs from what we actually believe to be the case, but that only magnifies the effect. We will return to that below We suppose that the initial distortion is such that traditional

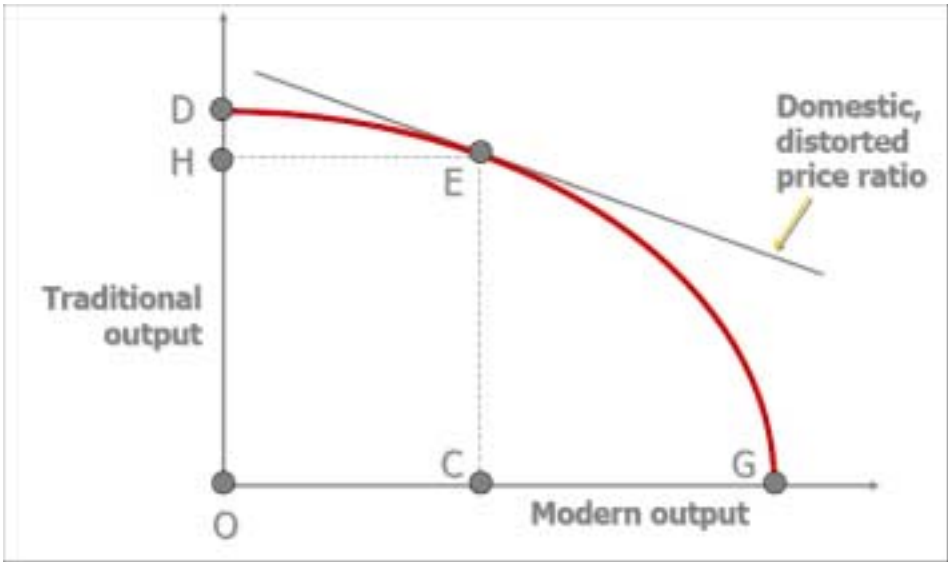

Figure 1: Initial Condition

output is valued too highly. Thus there is too much production of traditional output.

- We do not necessarily assume that domestic prices are in fact those of figure 1 – those are the shadow prices of the allocation at point E. It could be that prices actually differed from that.

Now suppose that prices are liberalized. Domestic prices move towards world prices. Modern output is more highly valued at world prices so the world price ratio is steeper. We

have figure 2, and if we ignore adjustment, production is now at point F. That is the efficient production point given initial production possibilities. Notice that at world prices the value of total output before was equal to OA, comprised of OC of the modern good and CA of the traditional good. The value of production at point F is obviously higher, equal to OB.

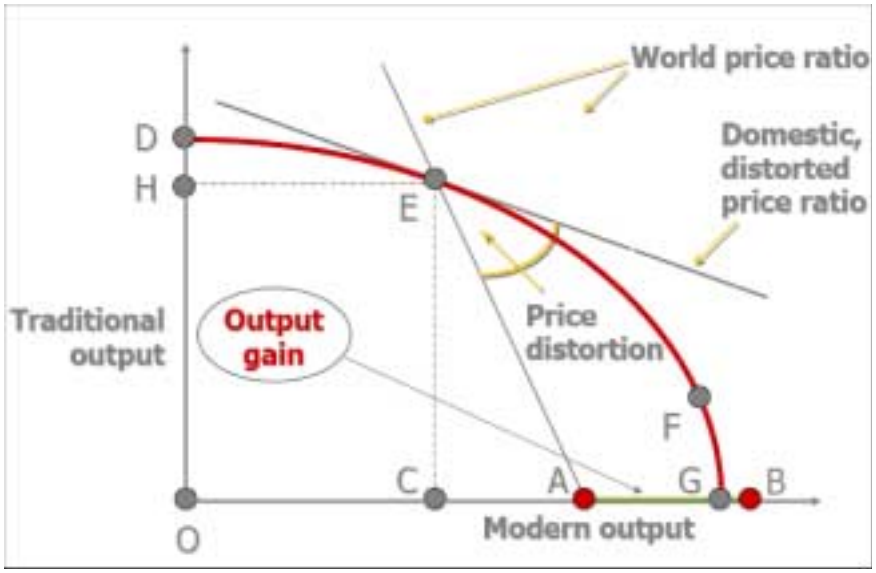

Figure 2: World Prices

Notice that if society's preferences – as opposed to planners' preferences – resemble world prices, then utility is clearly much higher at point F. What if society, however, values traditional output more highly than the rest of the world? If there is external liberalization the economy can produce at point F and trade to obtain a preferred combination of consumption. Some modern production can be exported and some traditional output can be imported. We can move to point J in figure 3.

The analysis so far suggests that liberalization is a great success – everyone is better off. The latter statement is certainly true if there is appropriate compensation. Since the value of production is higher we can use taxation and transfers to compensate the losers in the production of traditional goods. Strictly, these would have to be lump sum and there are problems identifying who are the losers. But in principle there are strict welfare gains with only some practical consequences.

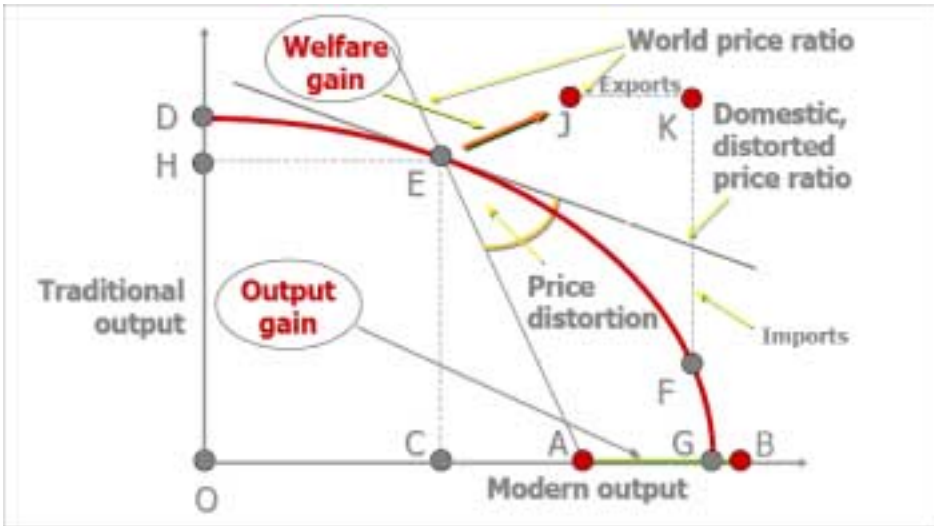

Figure 3: Welfare Gain from External Liberalization

So far we have only examined the static gain from liberalization. But we might suppose that with prices liberalized and inputs allocated better across uses there may be productivity gains that occur as well. If we add them into the picture we migh suppose that more modern output can be produced than before. In that case, the production frontier shifts to the right as in figure 4. Production is now at point H and the consumption point is now K. Welfare has increased even further as has output. Of course we have suppressed the mechanism that causes productivity growth, to some extent. To actually increase output we need some better use of resources and this might require investment. But there is a gain that could come about just from enforcing hard-budget constraints. This would lead to less waste of resources, and not require changes in ownership.

We have also ignored the gains that might come about from being inside the production frontier.

Not much to analyze then. The reason is that we have ignored the adjustment process.

What happens if it takes time to adjust production from the initial to the new combination? This is certainly plausible since resources will have to shift across sectors. Agents must respond to price changes they cannot instantaneously move. Moreover, we have ignored the process of providing incentives to follow prices, but let us leave that issue aside for a moment. If there

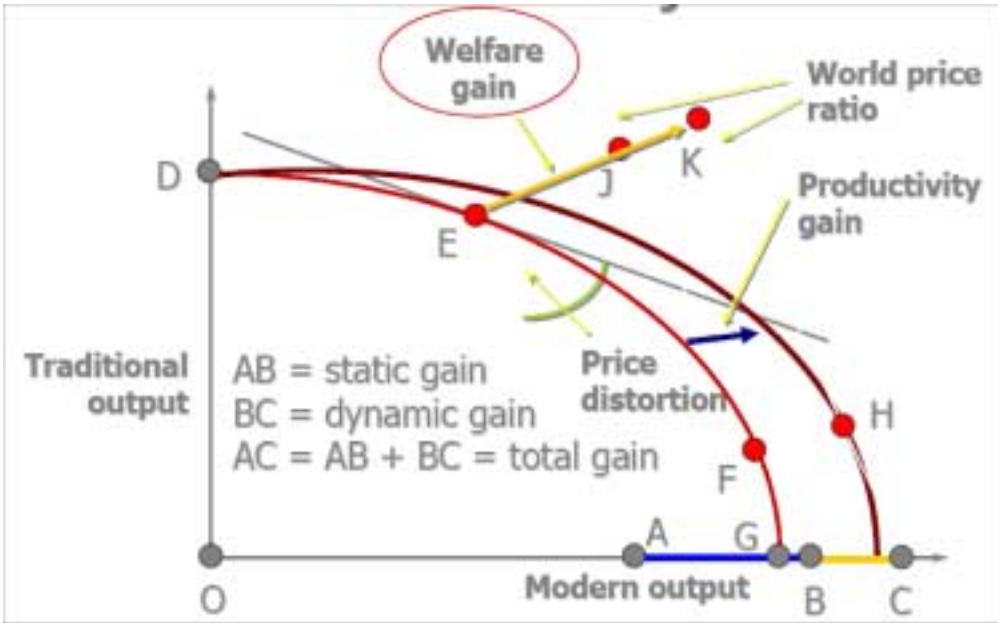

Figure 4: Productivity Gains

are lags, the adjustment process might resemble the path shown in figure 5. Once we consider the adjustment process, however, we see that ouput may fall in the short run.

- Notice that at point M the value of output is lower than at point E even when measured at world prices.
  - this is more than just slow adjustment – if it just took time, then we would move from $E \rightarrow N$ directly. The path from $E \rightarrow M$ represents some fall in output.
- Why does output actually fall?
  - Notice that as drawn the problem is not just slow adjustment, but some chaos or inefficiency – termed disorganization – in the short run.

Presumably, the adjustment process in transition resembles figure 5, since we know that output falls in all transition economies before it starts to rise. The important issue then is to understand why this process is not rapid, why it takes significant time. Moreover, we might note that if the path resembles that in figure 5 then it may not be that popular, and there may be pressures to curtail reforms before we see the real benefits.

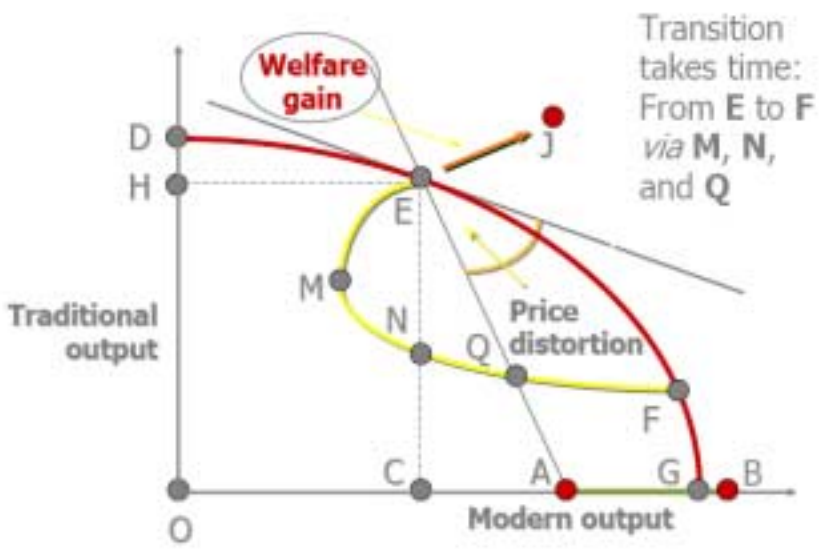

Figure 5: Transition Takes Time

This is what makes the transition an issue.

Why does transition take time?

- One reason is that the benefits of reform involve new activities. These require entry. But entry requires exit to free resources, especially if assets cannot be sold. Initially all the assets are part of the state sector, attached, but not really owned by the state enterprises. And most workers are there.
  - why can't assets be sold?
  - sale requires that property rights exist. At the start of transition there are not clear ownership rights. This means that there are clear gains from trade, but these gains involve illegal activities.
  - Notice that if assets are transferred semi-legally, then ex post the legality of the transfer will be questioned, especially if successful. But any transfer that is socially beneficial will appear to be shady, since the assets will have much higher value in the new use.
- Because of the immobility of assets in the immediate period – along with other insti-

tutional impediments to adaptation the benefits of reform may take time. Adjustment may look like that in figure 6

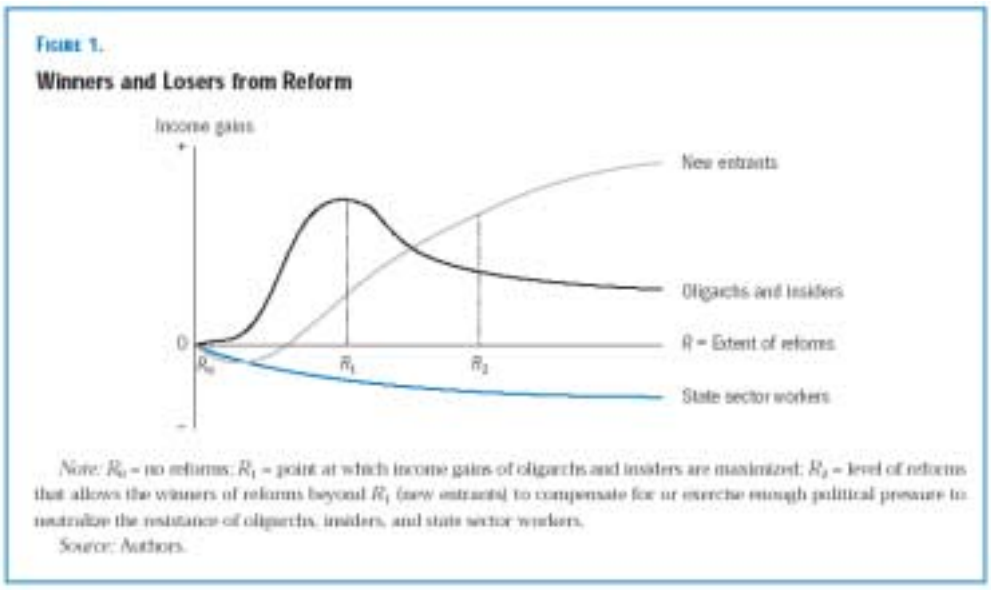

Figure 6: A Scenario of Adjustment

2. Sequencing

An important issue once the idea of radical reform is chosen is the proper sequence of reform. Another way to ask this question is whether the policy should be "Big Bang" versus "Gradual Reform." It is crucial to emphasize, however, that gradual reform is not at all the same thing as partial reform. Now we are in the context of eliminating the command principle and moving to a private property-based market economy. The question is rather one of how much do you do at once.

The competing principles are easy to understand. The need for a big bang seems almost implied by the lessons from partial reform. Moreover, there is a question of how much of the infrastructure of a market economy is needed for markets to be effective. The alternative view is motivated by the recognition that one cannot do all at once. There are limited skills and limited amounts of time. The question is then what is most important, and what is irreversible.

2.0.1. Definitional Issues

Gradual vs. Big Bang differs from partial vs. comprehensive reform; the notion of sequencing. The former refers to pace, the latter to breadth.

Gradual versus Big Bang It also relates to the idea of whether there should be an **incubation** period. In the late Soviet period there was the idea of the "500-days" plan. This was a blueprint for reform, written by leading reformers and accepted by Yeltsin, that was eventually rejected by Gorbachev.[1] The essence of the plan was to move in a steady way to a market economy. Enterprises would be broken up before being privatized to reduce monopoly power. Apartments would be privatized before price liberalization to soak up the monetary overhang. The key idea is to prepare the system for the transformation.

The opposite view is that crisis prevents an incubation period. This is certainly true in the Polish case and also in the Russian case. The problem is that the urge to undertake radical reform did not take hold until a crisis emerged, at which point there was no time left for incubation. This argument is less important in the case of Czechoslovakia and Hungary, where in fact some incubation took place. This points to the fact that the amount of hemorrhage in the fiscal budget may be a critical factor in deciding the outcome.

- An important consideration here is the prevalence of supply diversion and the **pseudo**-privatization of state assets. Once central control is weakened there will be defection from the central plan, and this defection will be of highly valuable producers. Holding the system together becomes critical. This is important if the private uses and social uses of assets differ.

- To some extent, gradualism may require that political control, a la China, remain. Without such control it may be difficult to control the pace of transition. And democracy may work against more gradual mechanisms.

The alternative argument is that organizational capabilities are limited, and transition will

[1] The most notable architect of the plan, **ex post**, is the Russian politician Grigory Yavlinsky.

eventually require the development of new organizations and new entry. Hence, it may be better to focus on new firms than old. Rather than privatize the old ones, limit their fiscal damage and develop institutions conducive to new entry.

Political arguments have been at the heart of transition strategies. We can think of two competing argument:

- Window of opportunity argument for going fast and creating irreversibility (Lipton and Sachs, 1990; Balcerowicz, 1995).
  - It could also be that there are complementarities – reforms only work if many are implemented
    - think of price liberalization and hard budget constraints
  - Poland is typically thought of as noteworthy example
- Gradualism and sequencing for building constituencies for further reforms (Dewatripont and Roland, 1992, 1995; McMillan and Naughton, 1992)
  - China is often pointed to as an example, others point to Ukraine or Belarus
  - China is dual-track liberalization which we will discuss separately

2.1. Normative political economy of reforms

How should we think about reform. We start with thinking about big bang. We can distinguish between ex ante and ex post political constraints.

- They are identical unless uncertainty and reversal costs.
- Start with uncertainty. Uncertainty: a majority may gain from reform ex post but be opposed to it ex ante (Fernandez and Rodrik, 1991).
  - Let p be the probability of winning $g > 0$
  - Let $1 - p$ be the probability of losing $l < 0$

- If $p > .5$ a majority wins ex post
- But ex ante we do not know if we will win or lose. What if $pg + (1-p)l < 0$ then the reform never passes, unless there is some chance for reversal

- Reversal costs occur if we learn more about the outcome later in the process. Let R be the reversal cost.
  - Now suppose that $pg + (1-p)l > 0$, so that the reform is implemented.
  - As soon as reforms implemented, reverse only if $pg + (1-p)l > -R$
    - reversal costs mean that reforms may be irreversible. Irreversibility means that there are sunk costs. This means that there needs to be greater possible gains from reform to compensate for irreversibility. We need to compensate for the option value of waiting.
  - Bad news in the middle of the reform process may not lead to reversal if high reversal costs. After uncertainty resolution, do not reverse if $l < -R$
  - But if low reversal cost ($l > -R$), reversal after bad news. This means that reforms may be reversed if bad news occurs. What if the reversal costs are higher? Then the possibility of reversal is eliminated. But this may be a deterrent to implementing reforms at all.
    - $\Rightarrow$Possibility of bad news under high reversal costs lowers ex ante prospect $pg - (1-p)R > pg + (1-p)l$ if $l < -R$

- How to relax ex ante political constraints?

- "compensating" packages."
  - Efficiency gains from reform allow in principle room for sufficient compensating transfers BUT

  - - distortionary taxation (raising taxes to compensate losers may end up eating more than the efficiency gains). Many countries have weak tax administration, especially early in transition (this is a role for International Financial Institutions or foreign aid, but not forthcoming).

- -asymmetric information implies that there are rents that could be earned by some, raising the cost.

  - Suppose that some lose more than others but government does not know who they are

    * ⇒pay biggest loss to all (otherwise "big" losers oppose reform). This implies that the "small" losers get economic rents because they are "overcompensated." Hence compensation is more costly.

    Example 1 Suppose 100 people lose 20 and 100 people lose 50.

  - Under perfect information, compensation cost is $2,000 + 5,000$

  - Under asymmetric information, compensation cost is $50x100 + 50x100 = 10,000$

- Another problem is commitment. If government cannot commit not to renege on its promise of transfers, then reform will be even more costly. This is because losers may accept reforms only if they receive the net present value of compensating transfers.

  - Suppose transfers of 20 to 100 people $(2,000)$ every year. Suppose discount rate is 5%. Net present value of transfers is

$$2000\left(\frac{1}{1-\frac{1}{1+r}}\right) = 2000\left(\frac{1+r}{r}\right) = 2000\left(\frac{1.05}{05}\right)$$
$$= 2000(21) = 42,000$$

  - This may be too costly to implement in the early period of transition.

- Bundling of reforms

- May be necessary to get majority approval for certain reforms
  - Consider trade reform and public sector reform. Suppose that it may be better to implement separately but public sector reform, viewed separately, may never get accepted politically unless government uses its agenda-setting power to bundle reforms.

Example 2 Example: 3 groups, two reforms

Example	Group 1	Group 2	Group 3	Net Gain
Reform 1	50	51	−50	51
Reform 2	150	−50	−50	50

- Notice that if voted on separately, reform 2 is not implemented unless there is some compensation. But we can bundle the reforms then they will be implemented since the first two groups vote for the bundle.
- Suppose that doing reforms 1 and 2 at once is inefficient (loss of 10 to groups 1 and 3. Then if simultaneous we have

Example	Group 1	Group 2	Group 3	Net Gain
Reforms 1 and 2	$50 + 150 - 10 = 190$	$51 - 50 = 1$	$-50 - 50 - 10 = -110$	81

- Notice that the bundle is less efficient, $81 < 101$, but Big bang is still better because gradualism does not pass!

2.2. Gradualist Strategy

- Costs
  - less efficiency gains (delay + loss of complementarities); the reforms may not work so well if stretched out
  - less learning (uncertainty resolution)
  - the current system may be intolerable and hemmoraging

  - asset stripping continues

- Benefits

  - less transfers in net present value terms (Dewatripont, Roland, 1992).
  - lower reversal costs under aggregate uncertainty create option value of early reversal (Dewatripont, Roland, 1995).
  - "Experimenting" with reforms and lowering costs of experimentation.
    * Decollectivization of agriculture,
    * Chinese special economic zones.
  - Build constituencies for further reforms through
    * a) "divide and rule tactics" (Dewatripont, Roland, 1992; Wei 1993).
      · Three groups of workers: A,B and C. Laying off A and B infeasible but laying off A first and B later but threatening B to lay them off first if they do not approve.
    * b) appropriate sequencing (Dewatripont, Roland, 1995).
      · Start first with reforms likely to benefit a majority so as to build constituencies for further reform.
  - Create institutions for commitment to transfers:
    * - enfranchisement (Acemoglu, Robinson, 2000)
  - Wait for a deterioration of status quo.Alesina and Drazen (1992). But this is risky too

- How to relax ex post political constraints?

  - Trade off between ex post irreversibility and ex ante acceptability.
  - Irreversibility can be a curse (Russian privatization).