Lecture Note on the Specific Factors Model and Adjustment

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1 Adjustment and the Specific Factor Model

The specific factors model is a useful way to think about some elements of adjustment and restructuring. In particular, it allows us to separate the effects of wage rigidity from the slow adjustment of the capital stock. We start out, in figure 1, with most employment in the state sector and at the wage W_0. Notice that there is full employment in the initial state. We are at point A in the upper diagram, and point A' in the lower one.

Now consider a decrease in the demand for the state-owned good. This causes labor demand to shift inward (fromL_1^s to L_2^s). If the wage is flexible, then we move from point A to point C. The demand for labor in the private sector does not increase immediately. We assume that this takes time, because capital is immobile in the initial stages of transition. This means that initially, only employment can adjust between the two sectors.

With only labor adjustment, wages fall to W_1, and labor shifts from the state sector to the private sector. This is point C in the upper diagram and point C' in the lower diagram. In the lower diagram the movement is horizontal from A to C, because the capital stocks are fixed in the short run. Notice that output does not fall because factors are still fully employed.

Suppose, instead, that wages are rigid downwards. Then the wage rate stays at W_0 and unemployment results, equal to AB in the upper figure. The capital-labor ratio in both sectors stays the same, but there is less than full employment. Some labor is unemployed, which is evident in the lower picture where we are at A' and B'. Output thus falls.

In the long-run both capital and labor can adjust. Full adjustment means that capital moves to the private sector; hence, the demand for labor in the private sector increases. The full adjustment equilibrium is at point E and E'.

Notice that this type of model explains output losses due to unemployment of resources. But in transition economies labor productivity has fallen, as employment fell by much less than output. Hence, we also need to explain why labor productivity fell. This is one of the virtues of a disorganization-type of explanation.

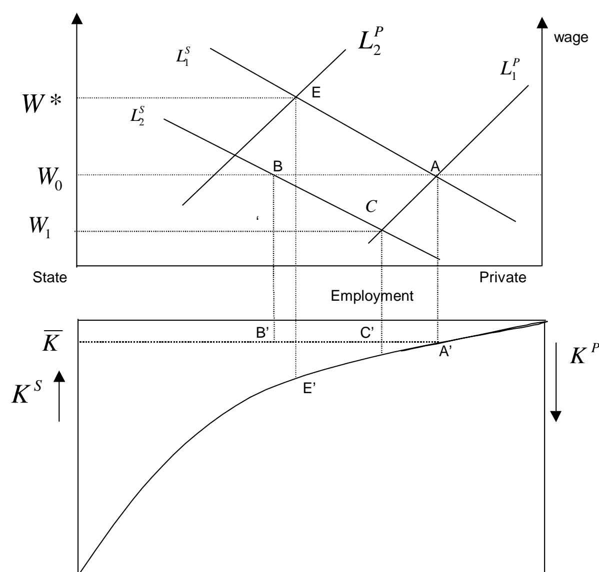

Figure 1:

An alternative explanation of this puzzle is that the state firm does not lay off workers, but continues to produce via subsidies. The price of the output has fallen, however. Hence, labor productivity falls.