Transitional Dynamics in Funke and Strulik (2000): A Qualification

In the computation of adjustment dynamics in Funke and Strulik (2000) we have argued that state variables cannot jump. We have, however, ignored the fact that co-state variables are also continuous in standard problems of optimal control (see e.g. Kamien and Schwartz, 1981). Continuity of the costate of capital implies continuity of consumption ($C$), and – from continuity of state $K$ – continuity of $\chi = C/K$. Similarly, the sectoral shares of human capital must be continuous. In other words, there is no jump at the transition from the developing economy to the innovative one. Figure 1 and 2 show the corrected adjustment dynamics.

References


Figure 1. Adjustment Dynamics in Funke and Strulik (2000) Part I
Figure 2. Adjustment Dynamics in Funke and Strulik (2000) Part II