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The transition to a globalized economy: Poverty, human capital and the informal sector in a structuralist CGE model

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Abstract

Recent econometric evidence suggests that trade liberalization has an elusive relationship to growth and income distribution. This paper provides an explanation for these results via numerical simulations of a dynamic structuralist CGE. The conclusion is that if families become too poor to finance human capital accumulation, or the state too stingy to supply it at a reasonable cost, exports of skill-intensive goods can become uncompetitive and the transition to openness may involve increasing poverty, unemployment and stagnation. The model design incorporates an informal sector as well as accumulation of human capital. The paper simulates two trajectories, a "green" path in which per capita income grows steadily with a rapid rate of human capital accumulation and a reduction in the level of economic informality. A second, or "red" path is also possible, however, with a growth rate that is much lower, an expanding informal sector and an inadequate rate of human capital formation.
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1. Introduction

The standard Heckscher–Ohlin–Samuelson model suggests that countries with large reservoirs of surplus labor should produce and export goods intensive in their most abundant factor, unskilled labor. But recent econometric evidence suggests that pro-globalization trade policy has a tenuous relationship to growth and income distribution (Easterly, 2001; Spilimbergo et al., 1999; Edwards, 1997). One explanation is that liberalization of the capital and current account was not accompanied by a broad set of policies addressing a number of development issues simultaneously (Rodrik, 1999). Brasili et al. (2000) and Roland-Holst (2003) show that successful globalizers move up a ladder of comparative advantage, with rapid shifts in their trade patterns, as both human and physical capital accumulate. In contrast, policymakers who see openness as an end in itself may be disappointed in the return to their efforts to respect the constraints imposed by the world financial and trading community.

Indeed how these constraints are perceived by policymakers is the central issue addressed here. The model is a dynamic structuralist computable general equilibrium (CGE) model with an informal sector. It is used to evaluate the longer term consequences for growth distribution, human capital formation and poverty of two stylized 20-year trajectories for a hypothetical small, open lower middle-income developing country with segmented labor markets. In the first, the policy requirements imposed by globalization are perceived to be strict: the nominal exchange rate appreciates to contain inflation, interest rates are kept high to maintain foreign exchange reserves and attract foreign direct investment and fiscal discipline is maintained via a tight constraint on government spending, with public sector investment adjusting to maintain the target PSBR to GDP ratio. In the second trajectory, trade reform is combined with a slightly more expansionary macro policy: the nominal exchange and interest rates are managed and government investment is aimed at lowering educational costs. Simulations show how relatively small differences in the macro policy component can cumulatively cause large differences in overall economic performance in the medium run. The results are also consistent with a J-curve effect of trade liberalization on growth found by Greenaway et al. (2002).

The paper is organized as follows: Section 2 is devoted to a theoretical elaboration of the adjustment mechanisms of the model. The third section presents empirical results of the effects of globalization on two stylized trajectories, with sensitivity analysis on some key parameters. A fourth section offers some conclusions on what can be learned from the simulations. A complete listing of the equations of the model together with the social accounting matrix (SAM) is presented in Appendix A.

2. Model

In addition to the usual features of dynamic structuralist CGE models, the model of this paper incorporates an explicit informal sector.[1] Nontraded goods sectors have

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[1] See Gibson and Kelley (1994) for a discussion of the theoretical approach employed here. For an interesting neoclassical CGE with an informal sector for Mexico, see Maechler and Roland-Holst (1995) and for a structuralist model for South Africa, see Schaefer (2002).