

The impact of the EU sugar trade reform on poor households in developing countries: A general equilibrium analysis[☆]

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Abstract

We use a modified version of the applied general equilibrium model GTAP, called GTAP_{MH}, to evaluate the impact of a reduction in the EU's support price for sugar on income distribution of African households. For LDC countries, non-ACP but participant in the EBA initiative a +2% change is indicated in term of income generation across all ten social strata identified within GTAP_{MH} framework, with positive percentage changes in supply prices at household level of endowment commodities, and positive percentage changes in price indices for private household expenditures. The big losers will be those countries that would no longer be able to compete at an international level as a result of the lost preferences.

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1. Introduction

This article simulates the EU sugar trade reform within an applied general equilibrium (AGE), global trade model called GTAP_{MH} and it analyses the effects of the reform on poverty incidence in developing countries. We developed GTAP_{MH} from the standard GTAP (Global Trade Analysis Project) database and model¹ by adding data and economic behavior for ten household groups in 29 countries. Our household data are from the World Bank income and expenditure quintile distribution (Africa Household Survey databank, 2006).

The impact of reforms to sugar sector policies on world market conditions and on developing countries has been extensively studied in the literature, but none of the scenarios deployed are exactly comparable to this study. Devadoss and Kropf (1996) estimated that the world price would increase by 8.83% due to full implementation of the Uruguay Round. Wohlgenant's (1999) simulations indicate that the world raw sugar price could increase 43.2% with complete trade liberalization; 10% with complete trade liberalization in developed countries; and 17% with complete trade liberalization in major developing countries. Elbehri, Hertel, Ingco, and Pearson (2000) show that EU sugar import liberalization has a much greater impact on world sugar trade than USA sugar liberalization. Beghin et al. (2003) estimated that USA sugar trade liberalization would cause world raw sugar prices to increase by 13.2%. Koo (2002) stressed that the Caribbean port price would have increased by 32.8% in 2004 compared to the base scenario if USA barriers were removed; by 21.6% if EU barriers were removed; and by 68.2% if barriers in both the USA and EU were removed simultaneously. Moreover, Beghin et al. in their study show that even with less than complete pass-through of sugar cost savings, consumers would benefit relative to losses incurred by producers and processors, and total net welfare gains would be large. Also Koo calculates welfare effects of the policies and indicates that the USA sugar industry may be able to survive if both USA and EU liberalize their sugar trade, but not if the USA alone liberalizes trade.

2. The policy issue under evaluation: The EU sugar trade reform

Trade reforms are important variables in the analysis of anti-poor or pro-poor development effects, given the swift transmission of trade spillovers into government decisions and household's behaviors (Winters, 2004). Thus trade reforms are assuming a more important role in poverty analysis, especially if commodities under reform account for a large share of export earnings or are subject to trade preferences.

Sugar in the EU is one of the most heavily subsidized sectors in many OECD countries (Bureau, Guyomard, & Réquillart, 2001; Mitchell, 2004; Gohin & Bureau, 2005). One of the main reasons for this is that Europe's quest for self-sufficiency in sugar led to the adoption of a high-cost technology for producing sugar beet that could only be sustained through protection. The EU intervention prices in fact have remained stable following two periods of increase, in the mid-1970s and at the beginning of the 1980s, coinciding with two world sugar crises, when world prices rose sharply (EC, 2004). The sharp increase reported in the intervention price in the mid 1990s is actually a result of the European green money system (Ritson & Swinbank, 1997) and not a result of a real increase of the EU intervention price. Only recently have EU sugar policies become candidates for new policy initiatives or reforms.

An important element in EU sugar policies is the preferences granted to certain countries. The root of the EU's preferential trade policy is in the 1957 Treaty of Rome, when signatories

¹ For more information about the GTAP model, see Hertel (1997) and Dimaranan and McDougall (2005).

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