

The Welfare Effects of a Large Depreciation: The Case of Egypt 2000-2005

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Non-Technical Summary

Between 2000 and 2005 Egypt experienced a large nominal depreciation of the Egyptian pound. Much of it was concentrated around a sharp devaluation in early 2003, and over the entire period 2000-2005 the exchange rate depreciated by 27 percent in trade-weighted terms. This paper assesses the welfare implications of the changes in consumer prices accompanying this large movement in the exchange rate. Large depreciations can be expected to at least partially lead to increases in the prices of imported, and import-competing, goods -- a phenomenon known as "exchange rate pass-through". I first estimate the extent to which exchange rate changes were passed through to consumer prices for 20 different consumption items, separately for 8 regions in Egypt. For the typical consumption item, roughly 20 percent of the exchange rate depreciation was passed through to consumer prices. On average, exchange rate pass-through was greater for food items than for non-food items, and even within food items varied considerably. Regional variation in pass-through is also present, but is not as large as across consumption items.

I then study the welfare effects of these exchange rate-induced changes in consumer prices. I do this by calculating the "compensating variation" associated with these price changes, using data from the 2000 and 2005 Egyptian household surveys. In particular, I estimate how much higher each household's total expenditure would have to be in order to compensate it for the exchange rate-induced changes in prices. On average this compensating variation is 7.4 percent of total expenditure. On average the compensating variation is higher for poor households who devote a larger share of their consumption to food items whose prices increased relatively more than non-food items in response to the exchange rate. Even at a given income level, however, the compensating variation varies greatly across households due to inter-household differences in consumption patterns. A policy implication of this heterogeneity is that it

would be difficult to accurately target any kind of subsidy program to offset the effects of the depreciation.

The results are subject to three major qualifications. The first is that I am able to study only the effects of exchange rate changes on consumer prices, while they likely also affect wages and household incomes through other channels that I am unable to measure in the household survey. The second is that the compensating variations are likely biased upwards by the relatively coarse level of disaggregation of consumer prices that I am able to work with. Finally, I study the welfare losses due to exchange-rate induced increases in consumer prices between 2000 and 2005 when the Egyptian pound fell sharply. However, in the preceding five-year period it appreciated sharply in trade-weighted terms. While I do not have information on changes in consumer prices in the earlier period, if the extent of pass-through was similar in the earlier period then the welfare losses I find in the 2000-2005 period would be the mirror images of welfare *gains* during the previous five years.