

Competitive Real Exchange Rates Are Good for the Poor: Evidence from Egyptian Household Surveys

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About the authors

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In a nutshell

- The real exchange rate (RER) is an economy-wide relative price, closely monitored by governments due to its perceived influence on export competitiveness and growth (a definition of RER and associated concepts are provided in the below annex).
- A recent study¹ assessing both the direct and indirect poverty impact of the RER on Egypt finds the net effect of RER depreciation/(moderate) undervaluation to be strongly pro-poor (Elbadawi and Refaat, 2015).
- Overall, real currency depreciation/undervaluation leads to higher average wages and other non-wage incomes for both poor and non-poor households. Moreover, an RER-led growth strategy is in fact pro-poor because the marginal impact on the income of the poor was found to be higher than that of the non-poor.
- However, an RER depreciation/undervaluation exchange rate policy has differing effects on wages across economic sectors and on different types of non-wage income; those negatively affected include those employed in some (but not all) non-tradable sectors or those receiving transfers from social funds.
- Therefore, accounting for both the indirect growth as well the direct distributional poverty effects of the RER is highly relevant for policymaking in view of two critical public policy aspects:
- It allows evaluating the extent to which such an undervaluation/depreciation strategy is more effective in terms of the poverty reduction goal relative to alternative growth strategies, such as those that favor non-traded activities.
- Moreover, by allowing a better understanding of the channels through which RER undervaluation might influence poverty at the household level, the evidence from such research should also inform actionable, sector-specific public policy interventions.

¹ We use the five most recent Egyptian Household Expenditure and Consumption Surveys (HIECS):1999/2000, 2004/2005, 2008/2009, 2010/2011, and 2012/2013.

Understanding the Context: Poverty in Egypt

The global poverty data is obtained from the World Bank's World Development Indicators (WDI) database, which reports the Gini coefficient; mean household consumption; and three measures of the headcount ratios (the proportion of the population that is poor at the poverty line of \$2 and \$1.25 dollars per capita, and at the national poverty line). However, we only consider the poverty headcount ratio at the national poverty line, which provides a more realistic assessment of poverty within a country, though it might not be the best indicator for cross-country comparisons.

Moreover, using the individual survey data of the Egyptian Household Income, Expenditure, and Consumption Survey (HIECS), we classify individuals into poor and non-poor based on the national poverty line values, published by the Egyptian Central Agency for Public Mobilization and Statistics (CAPMAS). Based on the HIECS national poverty line, the distribution of income between the poor and non-poor makes clear that the poor are substantially deprived in Egypt. Though, according to the most recent HIECS 2012/2013 survey, they account for more than 26% of the population, their share in total disposable income (at 11%) was much lower than half their share of the population. Moreover, for transfers and property incomes their shares were only 8 and 3%, respectively.

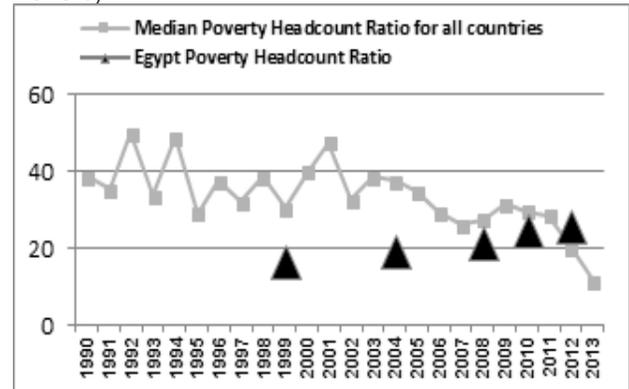
Table 1: Income Shares Among the Poor and Non-Poor

	Net Wages and Salaries	Self Employed Income	Rentals	Property Income	Transfers Received	Total Disposable Income
Poor	11%	12%	12%	3%	8%	11%
Non-Poor	89%	88%	88%	97%	92%	89%

Source: Elbadawi and Refaat (2015)

The spread of poverty in Egypt (as measured by the headcount ratio) has been lower than the global ratio. However, it was steadily rising, while global poverty started to decline. By 2013, the two divergent paths eventually led to a global poverty ratio of only 10 percent, while the Egyptian poverty headcount ratio reached more than 25 percent.

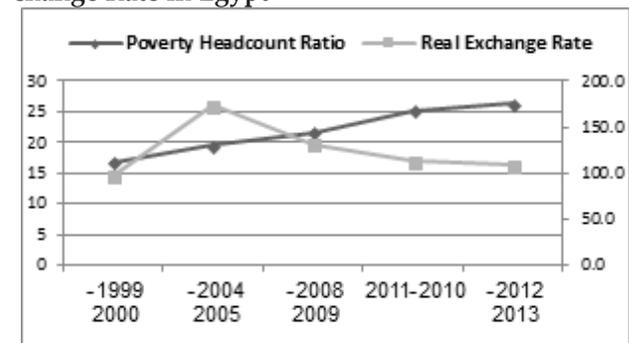
Figure 1: The Dynamics of Egyptian and Global Poverty



Source: Elbadawi and Refaat (2015)

The increasing spread of poverty in Egypt also seems to be associated with an appreciating RER trend as well as an overvalued real currency since 2010.

Figure 2: The Spread of Poverty and the Real Exchange Rate in Egypt



Source: Elbadawi and Refaat (2015)

As preliminary as it may be, this assessment suggests two pivotal conclusions: first, that the rise in the spread of poverty should be a major concern and constitutes an anomaly to the declining global trend

in poverty; and second, that the recent RER appreciation in Egypt might be a factor contributing to the worsening poverty conditions in the country.

Why Might the RER Have a Direct Effect on Poverty?

There exists relatively extensive literature on the viability of RER-led growth and an economic diversification strategy (e.g. Aghion et al. 2006; Elbadawi et al. 2008; and Rodrik, 2008). However, although the RER could have major distributional consequences as the pivotal economy-wide relative price influencing the inter-sectoral transfer of resources, there is surprisingly very little research on the direct potential poverty impact of such a strategy, beyond its indirect effect through the growth channel. Moreover, except for Elbadawi (2014), this literature does not specifically analyze the impact of RER undervaluation, which, unlike the absolute RER change, entails the “normative” concept of a deliberate development strategy as discussed in the growth and economic diversification literature (Williamson, 1997; and Elbadawi and Helleiner, 2004).

An RER undervaluation achieved through the reduction of prices of non-tradable services (such as housing and retail services) favors consumers in general, especially the urban poor. Also, an RER undervaluation would lead to the reallocation of resources toward agriculture, industry, and tradable services, raising incomes generated by economic activities in these sectors. While these sectors tend to generate much more jobs than non-tradable sectors, the RER-led growth of these sectors is also likely to be more pro-poor than the overall economic growth in a typical developing economy.

However, RER undervaluation might also generate offsetting supply side effects that must be taken into consideration. In the presence of downward wage-price rigidity, the reallocations of investment out of the non-tradable sectors will likely lead to higher unemployment. Since a large number of workers are grouped around the poverty line, a small drop in real wages might lead to a large increase in both

the spread and depth of poverty. Moreover, if the urban poor are also producers of non-tradables, as is the case of the large informal markets in many Middle Eastern and other developing countries, the economy-wide poverty reduction impact on rural poverty may be substantially ameliorated by rising urban poverty. Therefore, the net aggregate poverty impact of RER undervaluation could theoretically go either way.

Moreover, the RER-undervaluation effect on poverty might be non-monotonic, because there may exist an RER undervaluation threshold, beyond which further undervaluation could lead to higher poverty, not lower. An extreme example would be when RER undervaluation reaches such elevated levels that all non-tradable activities disappear.

Accordingly, we consider the response of average household wage and non-wage incomes to RER depreciation/undervaluation. It is possible to assess the extent to which an RER undervaluation (or an RER depreciation) is pro-poor by comparing the rate of change of the income of the poor relative to that of the non-poor in response to RER devaluation/depreciation.

As indicated above, this is a highly relevant issue for policy because it is important to evaluate the extent to which such a strategy is more effective in terms of the poverty goal relative to alternative growth strategies, such as those that favor non-tradable activities and therefore do not require real currency undervaluation or might even be consistent with RER overvaluation. Additionally, by acquiring a better understanding of the channels through which RER undervaluation might influence poverty at the household level, the evidence should also inform more specific and actionable public policy interventions.

What is the Evidence on the Pro-Poor Impact of a Potential RER-led Growth Strategy in Egypt?

Using the Egyptian HH survey combined with data on the RER and other macroeconomic variables, we identify the RER effects, while controlling for standard HH and individual characteristics.

Based on the estimated elasticity of the RER on the sectoral household wage and non-wage incomes, the ten major sectors of the Egyptian economy could be integrated into these three main groups:

- Group 1: agriculture and fishing, transportation, storage, communication, and financial, insurance and real estate.
- Group 2: manufacturing, mining, commerce, and public administration.
- Group 3: utilities, construction, and other services.

We find that RER depreciation/undervaluation promotes wage incomes for those employed in the sectors of Group 1 and depresses wages in the sectors of Group 3, while it has no effect on the sectors of Group 2. While the sectors of Group 3 are clearly of a non-tradable nature, the sectoral composition of the other two groups is rather mixed, which suggests that the extent of the tradability of sectors may not necessarily be the sole factor governing the net effect of the RER on sectoral wages.

From the perspective of the RER, the evidence could be summarized into three main conclusions:

First, real currency depreciation/undervaluation at the macroeconomic level leads to higher wages and other non-wage incomes. By raising incomes at the household level, including those of the poor, RER competitiveness is likely to be good for the poor.

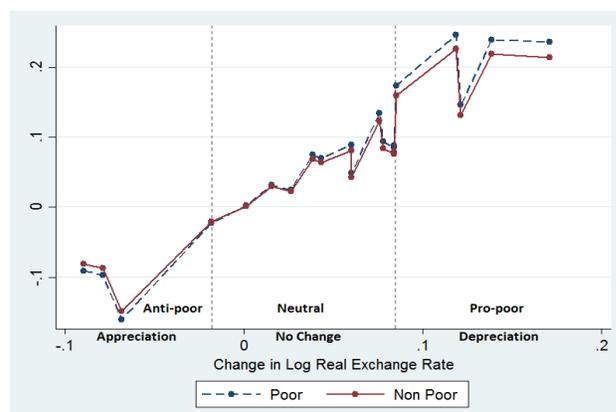
Second, a policy of sustained RER depreciation is, in fact, pro-poor, because the marginal impact on the income of the poor is higher than that of the non-poor (Figure 3).

For example, for 2013, the most recent year for which we have HIECS data, our simulations suggest that:

- A 10 percent undervaluation (overvaluation) increases (reduces) the average income of poor households by nine percent more than that of non-poor households.
- A 20 percent undervaluation (overvaluation) increases (reduces) the average income of poor households by 14 percent more than that of non-poor households.
- Moreover, the same pattern holds for the entire period (1990-2013).

Third, an RER depreciation/undervaluation exchange rate policy could have, however, differing effects on wages across economic sectors and on different non-wage incomes. For example, unlike those associated with tradable sectors, workers employed in the non-tradable sectors or those receiving transfers from social funds are likely to be negatively impacted by such policies.

Figure 3: Responses of Incomes of the Poor and Non-Poor to RER Depreciation



Source: Elbadawi and Refaat (2015)

Though we are able to glean highly policy-relevant evidence on the effectiveness of an RER depreciation/undervaluation policy as a pro-poor growth strategy, we still need to develop a better understanding of the channels through which RER undervaluation might

influence poverty. This would require access to more detailed data from the HIECS- type household and other labor surveys.

Finally, even when recognizing that RER is not a direct policy instrument, proponents of the RER undervaluation – as a growth fundamental (e.g. Rodrik, 2008; Williamson, 1997) or as a facilitator of economic expansion (e.g. Eichengreen, 2007) – argue that while the RER is not a direct policy instrument, it could be managed nevertheless. For example, Rodrik (2007) proposes several policy levers that policymakers might deploy for managing the RER:

Savings Policy:

- Compulsory saving schemes
- Pension reforms

Capital Account Management:

- Taxation of capital account inflows
- Liberalization of capital outflows

(Sterilized) Intervention:

- Increasing foreign exchange reserves

Monetary Policy:

- Appropriate choice of exchange rate regime
- Finding a role for RER in an “inflation targeting” framework

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Annex: Definition of RER and associated concepts

- The RER is broadly defined as a ratio of (the local currency equivalent of the trade weighted average index of the price level of a country's major trading partners) to (the aggregate price level in the country in question).
- A depreciated (high) RER suggests that the country produces a given basket of goods and services that can be traded across international borders at a lower cost, reflecting higher competitiveness of the economy at the macroeconomic level.
- A depreciated RER becomes "undervalued" (overvalued) when it undershoots (overshoots) its "notional" equilibrium, consistent with its sustainable economic fundamentals, such as the external terms of trade, the level of sophistication of its economy, or the stock of wealth generated by or endowed with the economy.
- There exists robust empirical evidence as well as notable country experiences (e.g. China, Chile) linking RER depreciation/moderate undervaluation to sustained export-led growth transitions in developing and emerging market economies.
- Therefore, to the extent that public policy might influence the RER, an RER depreciation/undervaluation can be an important policy instrument for reducing poverty through the growth channel.
- However, a fuller assessment of the potential poverty impact of the RER would require accounting for its distributional consequences as well, since an RER undervaluation (overvaluation) tends to transfer resources from households pursuing largely non-tradable (tradable) activities to those with dominant tradable (non-tradable) activities.

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