



# Winners and losers of foreign exchange rationing: the case of Ethiopia

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Many developing countries face the effects of foreign exchange rationing, and I have written [extensively](#) about Papua New Guinea's experience. In this blog, I look at the case of Ethiopia, to provide a broader international context, and share some research that has not been conducted yet in PNG – namely, finding out the winners and losers of foreign exchange rationing, including at the household level. Some findings on the effects of rationing are expected, like lower exports, but other results are surprising, like the overall negative impact on the urban poor as a group.

Ethiopia has similarities and differences to PNG. Like PNG, Ethiopia experienced an economic boom in the mid to late 2000s, and exchange rate appreciation, followed by an external shock which reduced the flow of foreign exchange into the country. This time was followed by foreign exchange shortages and rationing. Unlike PNG, Ethiopia is not a resources-dependent economy.

Researchers from the International Food Policy Research Institute and the Ethiopian Development Research Institute built a model that found several adverse distributional effects of the rationing in Ethiopia. Their 2009 paper can be found [here](#). Its results are relevant to PNG today due to the system of exchange rate rationing PNG has had in place since 2014.

It is sometimes assumed that rationing improves consumption for the urban poor through a reduction in imported inflation. However, Ethiopian results showed that while inflation was indeed lower, this reduction was negatively offset by job losses and by fewer opportunities for many to earn income, leading to lower consumption overall, on average. As shown in Table 1, moving to a system without rationing led to a 4% increase in average consumption for the urban poor.

Table 1 shows the change in consumption for four household groups after one year, which are split by geography (urban and rural) and income level (poor and non-poor). As

suggested by the name, the “non-poor” include everyone who is not poor, from those just above the poverty line to the middle class and extremely wealthy.

**Table 1: Distribution of Ethiopian household consumption after a negative foreign exchange shock**

Household group	(1) Total household consumption, baseline	(2) Change on baseline with rationing	(3) Change on baseline without rationing	Simulation (2) relative to simulation (3)
Rural poor	21.1	-5.3%	-3.2%	-2.2%
Rural non-poor	66.0	-8.4%	-3.2%	-5.7%
Urban poor	4.3	-5.9%	-2.1%	-4.0%
Urban non-poor	23.4	16.9%	-3.4%	17.4%
Total	114.8	-2.6%	-3.2%	0.6%

*The figures reflect a 3.5 year time period from 2004/2005 to late 2007. Baseline figures are measured in local currency units (billions)*

*Source: Dorosh et al. (2009). • Created with Datawrapper*

Column (1) shows the total amount of consumption for each household group prior to the negative shock, reflecting incomes, prices and population.

Column (2) presents the outcomes of the negative shock with foreign exchange rationing, in the short term. It shows that rationing protects and even expands consumption for the urban non-poor, while every other group sees their consumption decline.

Column (3) presents the outcomes of the negative shock with no rationing. It shows that this still results in losses, but that the losses are more equally distributed across the four groups.

The final column in the table presents the difference between the two policies, the winners and losers of the rationing system in the Ethiopian context. It shows that the urban non-poor are the winners, at the cost of those living in rural areas and the poor in both rural and urban areas, on average.

Table 2 compares differences in key macroeconomic indicators, comparing rationing with no rationing. The results suggest that rationing reduces inflation by 2.1%, while it increases consumption and Government spending in the short-term by 0.6% and 3% respectively. As mentioned previously, this increase in consumption in the short-term is experienced by the urban non-poor, who offset declines for other groups.

However, investment, exports and imports decline by 8%, 17% and 6% respectively, due to rationing. Real GDP is reduced by 0.7%. These are key findings. Investment and exports in

particular are key drivers of GDP growth. The opportunity cost of the loss in these growth areas compound each year that rationing continues, which mean even those few who benefit from rationing will see the benefits decline and become negative, while those who lose from rationing will see further losses, compared to no rationing. This is due to reduced employment and income-earning prospects resulting from lower GDP. This is relevant to countries like PNG, in which rationing has been in place for several years.

**Table 2: Changes in Ethiopian macroeconomic variables after a negative foreign exchange shock**

Macro variable	(1) Baseline	(2) Change on baseline with rationing	(3) Change on baseline without rationing	Simulation (2) relative to simulation (3)
Real GDP	128.6	-1.2%	-0.5%	-0.7%
Consumption	114.8	-2.6%	-3.2%	0.6%
Investment	28.2	-12.9%	-5.6%	-8.4%
Government spending	15.9	2.6%	-0.5%	3.0%
Exports	16.8	-0.2%	16.7%	-16.9%
Imports	47.0	-10.1%	4.1%	-6.7%
Real exchange rate	100.0	0.0%	11.8%	-11.8%
Inflation (CPI)	100.0	0.0%	2.1%	-2.1%

*The figures reflect a 3.5 year time period from 2004/2005 to late 2007. The baseline figures are measured both in local currency units (billions) and as an index (for real exchange rate and inflation).*

*Source: Dorosh et al. (2009) • Created with Datawrapper*

Removing rationing would have led to an increase in the real exchange rate (as with previous blogs, this is sometimes called a decrease if it is presented in foreign currency terms, but an increase if presented in local currency terms). Dorosh et al. [argue](#) that reforms to remove rationing need not require full liberalisation of the foreign exchange market, but that restrictions would need to be relaxed considerably.

To summarise, this research shows that in Ethiopia, on average, foreign exchange rationing is worse for consumption for both the urban and the rural poor, and worse for rural regions as a whole. Rationing reduces trade and investment, which are key drivers of GDP growth. However, rationing boosts consumption for some in the short-term, mostly the urban non-poor, and increases government spending in the short-term – though even these benefits will decline consistently as rationing continues, as the opportunity cost of lost returns on investment and export incomes rise exponentially. Yet this short-term impact may be key to

explaining why rationing is so prevalent in many developing countries, including PNG, where political power is often fragile and dependent on short-term outcomes.

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## About the author/s

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Rohan Fox was a Research Officer at the Development Policy Centre. He lectured in the economics program at the University of Papua New Guinea in 2015, 2016 and 2020.

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