

# A Multiplier Approach to Estimating the Market Impact of Cash Transfers

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Although Malawi as a whole benefited from a bumper harvest in 2005/06, some areas suffered from poor rains. The impact of a poor harvest is seen when food stocks are exhausted which occurs during the “hungry season” of December to March just before the following year’s harvest is due around April.

One area affected by a poor harvest is northern Dowa District. Concern have been operating in this area for a number of years, and implemented an emergency response with the intention of allowing households to meet their food entitlement. With this aim in mind nearly MK14m was distributed to 8,384 beneficiaries in December 2006 and MK17m to 10,161 beneficiaries in January 2007. This represents over 60% of the total population in the area.

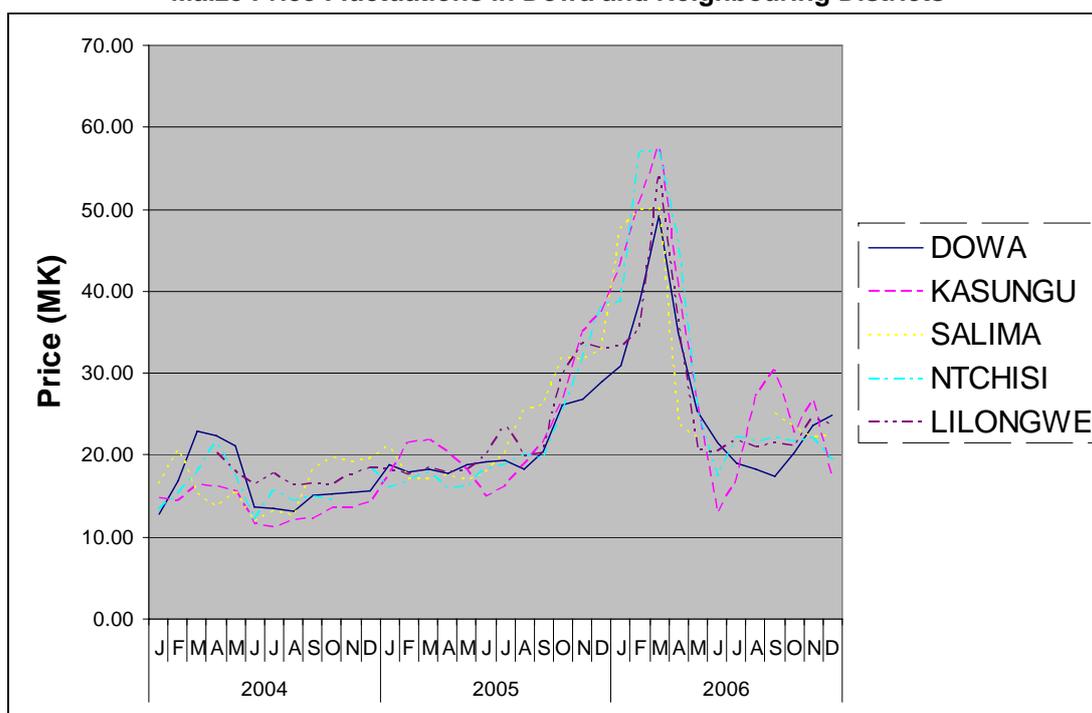
Unlike other food programmes which offer aid in kind, the Dowa Emergency Cash Transfer (DECT) programme intended to allow households to purchase their own food by distributing cash to those in need. This is a particularly useful strategy given that Malawi as a whole produced a grain surplus. This combined with a maize export ban ensured large supplies of maize were already in the country giving the market a chance to respond to shortages in northern Dowa District.

Maize shortage forces up prices in affected areas; the high prices combined with the additional purchasing power now given to the households in the area means that maize is attracted into the region helping to keep prices to a minimum and allowing households to meet their food requirements. The main aim of the programme appears to have been met with some success. However, such a programme will inevitably have secondary social and economic impacts. A study carried out during the implementation of the programme used qualitative and quantitative methods to help understand these secondary economic effects. This article provides a short summary of the methods used and the principal findings.

## Maize Prices

Any significant injection of cash into a small local economy is likely to have an impact on prices. Price information was gathered during the DECT programme as well as during a similar programme in 2005/06 and is combined with medium-run pricing data obtained through FEWSNET.

**Maize Price Fluctuations in Dowa and Neighbouring Districts**



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**Source of data: MoAFS through FEWSNET Reports (<http://www.fews.net/>)**

Available evidence suggests that supply was able to respond to increased demand in accessible areas minimising any inflationary effects. In more inaccessible areas, the programme may however have created additional inflation. Anecdotal evidence suggests that this is partly due to risk aversion on behalf of traders who are unwilling to travel to unknown areas, even with the prospect of large profits. Quantifying any inflationary pressure created by the project is however difficult to assess since Malawi as a whole had a large maize surplus and government policy prohibits export causing excess supply and a nation-wide price crash in January.

### ***Use of Transfers***

An additional benefit of the programme is that beneficiaries can use the money as they judge best. This prevents such occurrences as beneficiaries of food aid selling their maize back to traders. It also allows traders a market for their product and helps to support other businesses during a difficult period of the year. Finally, the readiness with which beneficiaries identified themselves to shopkeepers and traders suggests that there is some pride in being seen as a beneficiary and helped to gather evidence on spending habits from traders. The uses of transfers are described in the table below.

**Percentage of Transfer Spent on Different Goods - DECT**

Product	Dec-06	Jan-07
Maize	51.00%	48.89%
Fertiliser	9.00%	4.30%
Saved	5.00%	5.36%
Rice	5.00%	4.53%
Beans/Pulses	4.00%	4.56%
Wheat	4.00%	4.50%
Cassava/Potato	4.00%	4.51%
Debt Repay	3.00%	2.68%
Milling	4.00%	3.99%
Tea/Salt/Other		
Food	4.00%	2.55%
Medical	3.00%	3.69%
Body Care	2.00%	2.34%
Other	2.00%	5.15%
Education	0.00%	2.95%
(Total food excl. maize)	25.00%	28.14%
	100.00%	100.00%

**Source: Concern Worldwide, “December Transfer Monitoring Report” and DECT PTM Survey – Author’s calculations.**

Understanding of beneficiaries’ purchases mean that their spending could be assigned to different groups of traders, farmers, shopkeepers etc. which benefited indirectly from the DECT programme and this was then used as the basis for estimating the multiplier.

### ***Multiplier Effect***

The report uses two methods to estimate the regional multiplier resulting from the DECT Programme in the area affected.

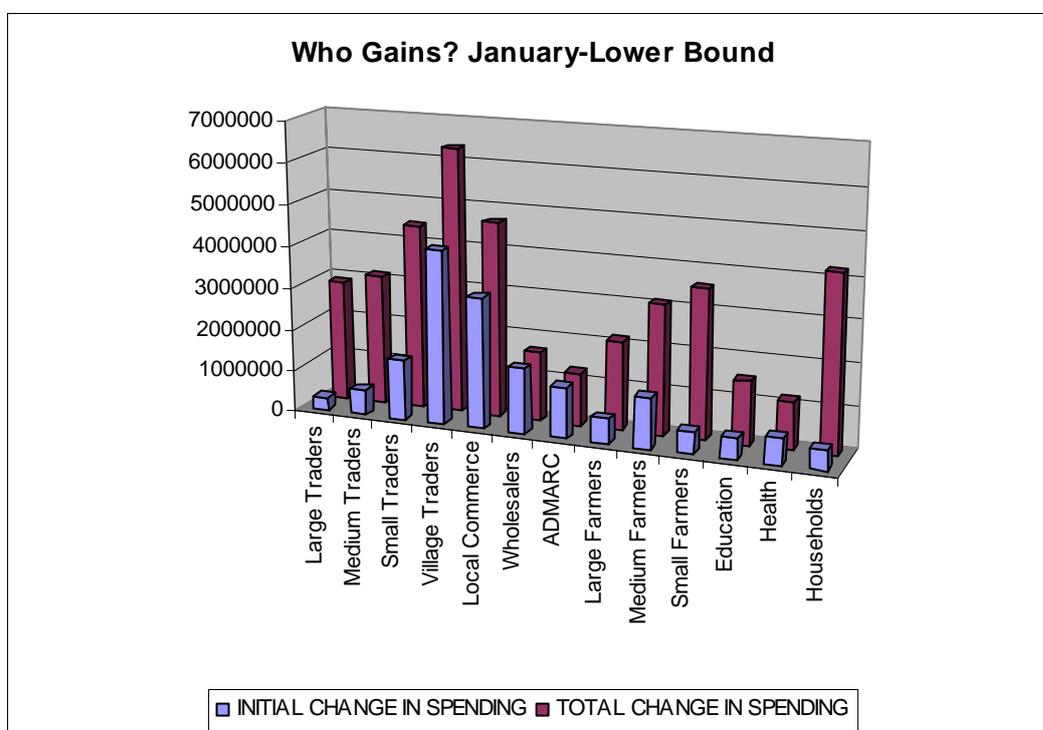
Firstly, using beneficiaries’ reported spending patterns, secondary beneficiaries were identified and interviewed to ascertain their own spending patterns. This permitted the cash injection to be “followed” around the local economy until it is spent elsewhere. Groups which benefit were classified and spending by each group with all other groups was analysed in matrix form with one group’s spending being another group’s income. This allows for the creation of a “Reduced” Social Accounting Matrix (RSAM) from which the regional multiplier was calculated using standard techniques and the total impact for each group estimated after all spending rounds have been completed.

Individuals representing each group were interviewed to obtain quantitative expenditure information and additional qualitative information. Under different assumptions, a regional multiplier of between 2.00 and 2.79 was estimated with beneficiaries' spending being treated as the exogenous stimulus. The lower region of these estimates is favoured as being under more realistic assumptions of 10% of initial beneficiary spending being outside of the region, and rent and transport expenditure largely leaving the region.

Using data from the 1998 Malawian census, this report goes on estimate the multiplier for northern Dowa District at 2.11 using the "minimum requirements" method, helping to confirm the multiplier estimate as being in the lower region of the estimates using the RSAM. These estimates are in line with upper estimates other similar studies have found in developing countries and are a result of the links between different groups within the local economy. These links mean that several traders within the local region are likely to handle a good before it reaches the final consumer, with each adding value by transporting or repackaging it.

### **Secondary DECT Beneficiaries**

The direct beneficiaries of the DECT programme spend most of their cash in the local economy. This creates secondary beneficiaries in the form of the traders who sell their goods, the school and clinics which receive their fees, the local stores that now have additional trade. The story does not stop there, as the secondary beneficiaries then spend this income with each other and with other groups in the region. The RSAM can be used to estimate the total increase in income for each group resulting from the cash injection. Noting that each group's total gain is estimated and that more individuals are included in some groups than others, local commerce and village traders are significant winners with many people making purchases from these two groups in rural areas with small towns. Smaller farmers gain more than their larger counterparts; an unsurprising result given that smallholders are the backbone of the Malawian economy. Households are also gain (both beneficiaries' and others') since part of the money finds its way back into their pockets in the form of wages, casual labour payments and gifts. Finally, both clinics/hospitals and schools also gain with a part of the money being spent on health and education. Total gains in Malawian Kwacha for each group are shown in the table below.



### **Education and Health**

Qualitative evidence indicates that the impact for schools is particularly important and deserves greater attention. The schools interviewed reported improvements in enrolment/drop-out rate as well as fee-paying which was put down almost exclusively to the DECT programme. One school

also indicated improvements in students' concentration resulting from being properly fed thanks to DECT.

The expenditure on health is born out through an interview with a private clinic in the area. The clinic reported better business in December and January this year compared with the same period last year. This was put down partly to the DECT programme. The doctor reported one case of a man who had been ill and in great pain for 3 weeks before coming to the clinic. The man said he was a Concern beneficiary, and did not have the money to pay for treatment beforehand.

### ***Labour Market***

Anecdotal evidence suggests that there may be a reduction in unemployment as a result of the programme. It is more likely however that labour market benefits are in the form of reduced underemployment with those already (self-)employed working harder to meet increased demand. Similar anecdotal evidence suggests that there has been not only a demand-side impact on labour but also a supply-side impact. Beneficiaries are less likely to offer their services in the form of casual labour creating problems for larger farmers.

Understanding the impact on the labour market is key to understanding the degree to which the multiplier represents increase production of goods and services resulting from the increased demand. In the short run, increased consumption on aggregate can only be met through increased work; if no additional employment is created, increased consumption on one person can be met only through another's reduced consumption.

### ***Traders' Views on DECT***

Qualitative information suggests that local businesses and traders have strongly positive views regarding the DECT programme. Most recognised the benefit for themselves personally, and were particularly grateful of the demand stimulated and from which their businesses benefit during the most difficult period of the year. Although some reported initial misgivings about the mis-use of the cash, there is now general satisfaction with the fact that the transfers tend to go to the females and are not abused.

Anecdotal evidence collected from businesses regarding spending habits of beneficiaries (who can usually be readily identified) supports the theory that beneficiaries are spending their transfers on worthwhile goods including food; school fees; health etc. Some however indicates that a small amount is spent on "extravagant expenditure" with one bar reporting busy nights on the day of the distribution.

### ***Conclusion***

Overall the programme has been a success both in terms of its main aims of ensuring that households are able to meet their food requirement, as well as for the rest of the local economy. The beneficiaries have spent their money in ways which have both permitted their survival and helped to improve their longer run situation by investing in health, education and fertiliser.

Such programmes are new, and there remains much to be understood about their total impact in both the long and short run. Donors must be cautious that such programmes do not have inflationary effects and it is important to track the usage of the transfers. This analysis however suggests that under the right circumstances (particularly a food surplus in nearby areas) there is room for cash transfer programmes in the traditional aid armoury to help fight hunger, and improve the lot of impoverished regions in more far-reaching ways.