The Role of Farm Inputs Subsidy Program in the Malawi Economy

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1. Introduction
2. Scale and Financing of FISP
3. Impact of FISP
4. Graduations and Prospects in FISP
5. Concluding Remarks
Introduction

- The 2012/13 season marked eighth year of implementation of Farm Input Subsidy Programme (FISP).

- The main objective is to increase agricultural productivity and food security, and incomes of rural households.

- The FISP attempts to resolve the ‘low maize productivity trap’ in the face of inter year maize price instability.

- So substantial price reductions in the prices of inputs should be seen as means to address the profitability and affordability problems that poor farmers face.
  - High rates of poverty
  - Lack of access to agricultural credit.
Understanding Impacts of FI SP

RURAL HOUSEHOLDS

Poorer households

Input Subsidy

Resale

Incremental use

Displacement use

Less-poor households

Y1 Increased real incomes

Farm/ non farm investment

Y1 Increased production

RURAL ECONOMY

Input service demand & investment

Y1 Increased wages

Y2 Reduced maize prices

Y2 Increased wages

Farm/ non farm demand & investment
Introduction .......

- A large scale FISP affects different types of households, different markets and the economy.
  - Macroeconomic level (fiscal, monetary, growth and food price effects)
  - Input markets impact (displacement and investments in input supply systems)
  - Rural household impacts (direct beneficiary effects and rural economy-wide effects).
Scale and Financing of FISP

- The core objective has been consistent
  - To improve resource poor farmers’ access to agricultural inputs
    - Household food security and national food self sufficiency
    - Raise farmer’s incomes through increased food and cash crop production

- Key scale features 2005/6 – 2011/12
  - Reaches out to more than 1.5 million of 3.4 million smallholder farmers
  - Planned to subsidizes between 137,000MT – 170,000 MT of fertilizers
  - Actual amounts have mostly been more than planned 131,000MT – 216,000MT
  - Subsidized Improved maize seeds 5MT – 11MT , and legume seed
  - Value of fertilizer subsidy has been increasing over time 64% - 93%
### Key Features of the FISP 2005/6 - 2011/12

Table 1: Principal Programme Features, 2005/6 to 2011/12

<table>
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<tbody>
<tr>
<td><strong>Fertiliser voucher</strong></td>
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<td></td>
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<tr>
<td><strong>distribution</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>(MT equivalent)</td>
<td>166,156</td>
<td>200,128</td>
<td>216,000</td>
<td>195,369</td>
<td>160,000</td>
<td>160,000</td>
<td>140,000</td>
</tr>
<tr>
<td><strong>Total subsidised</strong></td>
<td>Planned</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>fertiliser sales (MT)</strong></td>
<td>137,006</td>
<td>150,000</td>
<td>170,000</td>
<td>170,000</td>
<td>160,000</td>
<td>160,000</td>
<td>140,000</td>
</tr>
<tr>
<td><strong>Actual</strong></td>
<td>131,388</td>
<td>174,688</td>
<td>216,553</td>
<td>197,498</td>
<td>159,585</td>
<td>160,531</td>
<td>139,901</td>
</tr>
<tr>
<td><strong>Fertiliser voucher</strong></td>
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<tr>
<td><strong>value, approx. (MK/bag)</strong></td>
<td>1,750</td>
<td>2,480</td>
<td>3,299</td>
<td>7,951</td>
<td>3,841</td>
<td>5,237</td>
<td>6,536</td>
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<tr>
<td><strong>Redemption price</strong></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>(MK/bag)</td>
<td>950*</td>
<td>950</td>
<td>900</td>
<td>800</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td><strong>Subsidy % (approx.)</strong></td>
<td>64%</td>
<td>72%</td>
<td>79%</td>
<td>91%</td>
<td>88%</td>
<td>91%</td>
<td>93%</td>
</tr>
<tr>
<td><strong>Subsidised maize seed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(MT)</td>
<td>n/a</td>
<td>4,524</td>
<td>5,541</td>
<td>5,365</td>
<td>8,652</td>
<td>10,650</td>
<td>8,245</td>
</tr>
<tr>
<td><strong>% Hybrid seed</strong></td>
<td>0%</td>
<td>61%</td>
<td>53%</td>
<td>84%</td>
<td>88%</td>
<td>80%</td>
<td>68%</td>
</tr>
<tr>
<td><strong>Legume seed (MT)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>24</td>
<td>1</td>
<td>1,551</td>
<td>2,726</td>
<td>2,562</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cotton seed / chemicals</strong></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Total programme</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>cost (MK million)</strong></td>
<td>planned</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>5,100</td>
<td>7,500</td>
<td>11,500</td>
<td>19,480</td>
<td>21,908</td>
<td>19,700</td>
<td>21,586</td>
</tr>
<tr>
<td><strong>actual</strong></td>
<td>4,480</td>
<td>10,346</td>
<td>13,362</td>
<td>33,922</td>
<td>15,526</td>
<td>21,868</td>
<td>23,455</td>
</tr>
</tbody>
</table>
Scale and Financing of FISP ….

Financing

- Fertilizer subsidy from domestic sources
  - Indirectly through donor budget support
- Seed subsidy largely financed by donors
- Donors also fund part of implementation (logistics), monitoring and evaluation
- But other costs are difficult to quantify – staff time, ORT in various department, farmer payments

Cost Structure 2005/6 – 2011/12

- Exponential rise in costs 2006/7 ($74million) to 2008/9 ($250million)
- In 2008/9: 68% of Ag budget, 16% of Nat. Budget and 6.6% of GDP
  - Election year, substantial increase in international fertilizer prices, tea and coffee included
- Cost has come down in more recent years, but constitute a significant amount of resources
Macroeconomic Impacts

- Increases in the both agricultural and GDP partly attributed to the FISP and the good rains that the country has witnessed.

- Price stability evident, with decline in inflation from 15.4% in 2005 to a single digit level of 7.4% in 2010
  - Reduction in maize prices have exerted downward pressure on the general price level and food inflation.

- But, public debt has been increasing: 8.2% in 2006 to 15.7% in 2010.

Table 1 Macroeconomic Performance Indicators, 2005 – 2010 (%)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Agricultural Growth</td>
<td>-7.8</td>
<td>12.3</td>
<td>12.3</td>
<td>11.8</td>
<td>10.4</td>
<td>6.6</td>
</tr>
<tr>
<td>Real GDP Growth</td>
<td>3.3</td>
<td>6.7</td>
<td>8.6</td>
<td>9.7</td>
<td>7.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Inflation</td>
<td>15.4</td>
<td>13.9</td>
<td>8.0</td>
<td>8.7</td>
<td>8.4</td>
<td>7.4</td>
</tr>
<tr>
<td>Deficit/GDP Ratio (actual)</td>
<td>-0.4</td>
<td>-1.4</td>
<td>-4.0</td>
<td>-6.3</td>
<td>-5.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Deficit/GDP Ratio (budget)</td>
<td>-2.6</td>
<td>-1.5</td>
<td>-1.8</td>
<td>-7.8</td>
<td>-8.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Debt/GDP ratio</td>
<td>-</td>
<td>8.2</td>
<td>8.2</td>
<td>17.4</td>
<td>15.1</td>
<td>15.7</td>
</tr>
</tbody>
</table>
Economy-wide Effects: Maize Prices and Wages

- Evidence of rural economy wide benefits of the FISP due to lower maize prices and increased *ganyu* wage rates.

- Increases in wages over time were reported by households and in focus group discussions in all the districts surveyed.

- High wages have enabled poor households to spend less time on *ganyu* in order to earn income adequate to purchase food whenever their own stock run out.

- Similar processes of falling maize prices, rising wage rates, and falling time spent on *ganyu* was demonstrated in earlier FISP work from 2005 to 2007.
Average Maize Prices, Tobacco Prices and *Ganyu* Wages 2009-11

**a) Maize Prices**

- **Mzimba**: Jun 2009, Jan 2010, Jun 2010, Jan 2011
- **Kasungu**: Jun 2009, Jan 2010, Jun 2010, Jan 2011
- **Lilongwe**: Jun 2009, Jan 2010, Jun 2010, Jan 2011
- **Ntcheu**: Jun 2009, Jan 2010, Jun 2010, Jan 2011
- **Zomba**: Jun 2009, Jan 2010, Jun 2010, Jan 2011
- **Blantyre**: Jun 2009, Jan 2010, Jun 2010, Jan 2011
- **Thyolo**: Jun 2009, Jan 2010, Jun 2010, Jan 2011
- **Phalombe**: Jun 2009, Jan 2010, Jun 2010, Jan 2011
- **All**: Jun 2009, Jan 2010, Jun 2010, Jan 2011

**b) Tobacco Prices**

- **Mzimba**: Jun 2009, Jun 2010
- **Kasungu**: Jun 2009, Jun 2010
- **Lilongwe**: Jun 2009, Jun 2010
- **Ntcheu**: Jun 2009, Jun 2010
- **Zomba**: Jun 2009, Jun 2010
- **Blantyre**: Jun 2009, Jun 2010
- **Thyolo**: Jun 2009, Jun 2010
- **Phalombe**: Jun 2009, Jun 2010
- **All**: Jun 2009, Jun 2010

**c) Ganyu Wages**

- **Mzimba**: Jan 2009, Jan 2010, Jan 2011
- **Kasungu**: Jan 2009, Jan 2010, Jan 2011
- **Lilongwe**: Jan 2009, Jan 2010, Jan 2011
- **Ntcheu**: Jan 2009, Jan 2010, Jan 2011
- **Zomba**: Jan 2009, Jan 2010, Jan 2011
- **Blantyre**: Jan 2009, Jan 2010, Jan 2011
- **Thyolo**: Jan 2009, Jan 2010, Jan 2011
- **Phalombe**: Jan 2009, Jan 2010, Jan 2011
- **All**: Jan 2009, Jan 2010, Jan 2011

**d) Real Ganyu Wages**

- **Mzimba**: Jan 2010, Jan 2011
- **Kasungu**: Jan 2010, Jan 2011
- **Lilongwe**: Jan 2010, Jan 2011
- **Ntcheu**: Jan 2010, Jan 2011
- **Zomba**: Jan 2010, Jan 2011
- **Blantyre**: Jan 2010, Jan 2011
- **Thyolo**: Jan 2010, Jan 2011
- **Phalombe**: Jan 2010, Jan 2011
- **All**: Jan 2010, Jan 2011
Impacts on Farm Input Markets

- Both recipients and non-recipients of subsidized fertilizers purchase commercial fertilizers, the amount purchased are generally less than those purchased before the FISP.
  - Fertilizer price up from K37/kg in 2004/5 to K97/kg in 2010/11
- Among the poor the higher the number of seasons a household benefits from the subsidy the lower the supplementation with commercial fertilizers.
- Statistical evidence of the displacement effects of FISP on commercial sales that suggests that a 1% increase in subsidized fertilizers induces 0.15 – 0.21% reduction in commercial fertilizer demand.
- Targeting of the subsidy programme remains broad and prone to exclusion and inclusion errors, and combined with the increase in the sharing of coupons tends to contribute to these displacement effects.
Impacts on Food Availability and Consumption

- Official estimates of national food production and per capita food availability indices show improved food security.
  - But some of these estimates are questionable given the behaviour of maize prices

- There is a general feeling that the food security situation has improved in the country.
  - Also supported by household survey findings
  - It is making farmers to hang in, rather than step up or step out

- However, recent NSO survey indicate that 33% of households experienced situations of food insecurity.
  - 42% of rural population being food insecure in 2010/11
  - FEWSNET reported that 1.6 million people faced food insecurity risk in 2012/13.
Impacts on Incomes and Poverty

- The evidence is mixed

- The income increases have emerged from increasing rural wages, although economic reforms and high maize prices in 2012/13 seem to have reversed this trend.

- Economic models have also provided evidence of real income gains from wages and maize price change of 3% - 10%.

- But, recent NSO poverty estimates cast doubts on the income and poverty effects:
  - National poverty has just fallen by 2% between 2005 and 2010.
  - Rural poverty falling from 58.1% to 56.6%.
Direct Beneficiary Household Impacts

- Several studies have provided some evidence of household impacts of FISP, but it is mixed.

- Households that have received subsidies continuously tend to report adequate food production compared to non-recipients.
  - Recipients likely to be net sellers of maize.

- Positive evidence on household level primary school enrolment and that subsidies reduce incidence of under-5 illness.

- No evidence that self-assessment poverty has changed with subsidies. There is also weak association between subsidies, and real incomes and asset accumulation.

- When faced with agricultural related shocks, for recipients, they are unlikely to report that they are severe.
Graduation from FISP: What Prospects?

- There is need for greater attention to graduation in the design and implementation of FISP.

- Graduation as ‘a removal of access to the programme that does not leave current beneficiaries supported by the programme unable to pursue sustainable independent livelihoods’.

- But, it is important to distinguish between potential and actual graduation, termination and ‘exit strategies’.

- Emphasis on complementary measures and policies that promote potential graduation.
Prospects of Graduation ..........

- Core requirement for graduation from FISP – removal of access not to reduce land, labour and capital productivity in maize production.

- The facilitating ‘potential graduation conditions’ include:
  - Fall in unsubsidized input prices – improved distribution
  - Increased efficiency in use – high yielding seeds, timely planting and good farm management
  - Substitution by cheaper inputs – use of organic fertilizers, legumes and rotations
  - Increased working capital – increased savings or income diversification
  - Diversification out of maize
  - Access to low cost credit – innovative and low cost microfinance systems
Prospects of Graduation in FISP

- At national level, there are indications that gradual reduction in subsidies
  - Overall improvements in food production
  - Fall in maize prices and increase in wages – real income increases
  - Commercial purchases of fertilizers is increasing (reduced displacement rates)
    - But national poverty trends, maize price volatility can undermine prospects for sustainable graduation

- At household level, there are limited prospects given the available evidence
  - Economy-wide effects may undermine direct beneficiary effects
  - Targeting and sharing of coupons (benefit dilution) can also undermine prospects of graduation as shown below
Concluding Remarks

- The farm input subsidy continues to claim substantial resources from the national budget, MK23.5 billion in 2011/12.

- There is mixed evidence from available studies of economy-wide impacts and direct beneficiary effects suggesting some areas to look at for future.

- Graduation should be looked at seriously in the future design of the FISP – and this should partly inform targeting issues.
Concluding Remarks …..

- Targeting of households remains variable and a large proportion of non-poor households have access to subsidized farm inputs. This increases displacement of commercial sales and limits incremental production.
  - Universal 50kg bag to every farmer?
  - 100 kg bag tightly to the poor?
  - 100 kg to the poor and 50kg to the non-poor?
  - *But there are always political sensitivities to these issues (national or local level politics)*

- The practice of *redistribution or sharing* of coupons at village level, largely driven by village level politics:
  - Dilution of the benefit package which undermine household level impacts
The Role of the Farm Input Subsidy Programme in the Malawi Economy

THANK YOU FOR YOUR ATTENTION

Ephraim Chirwa
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