



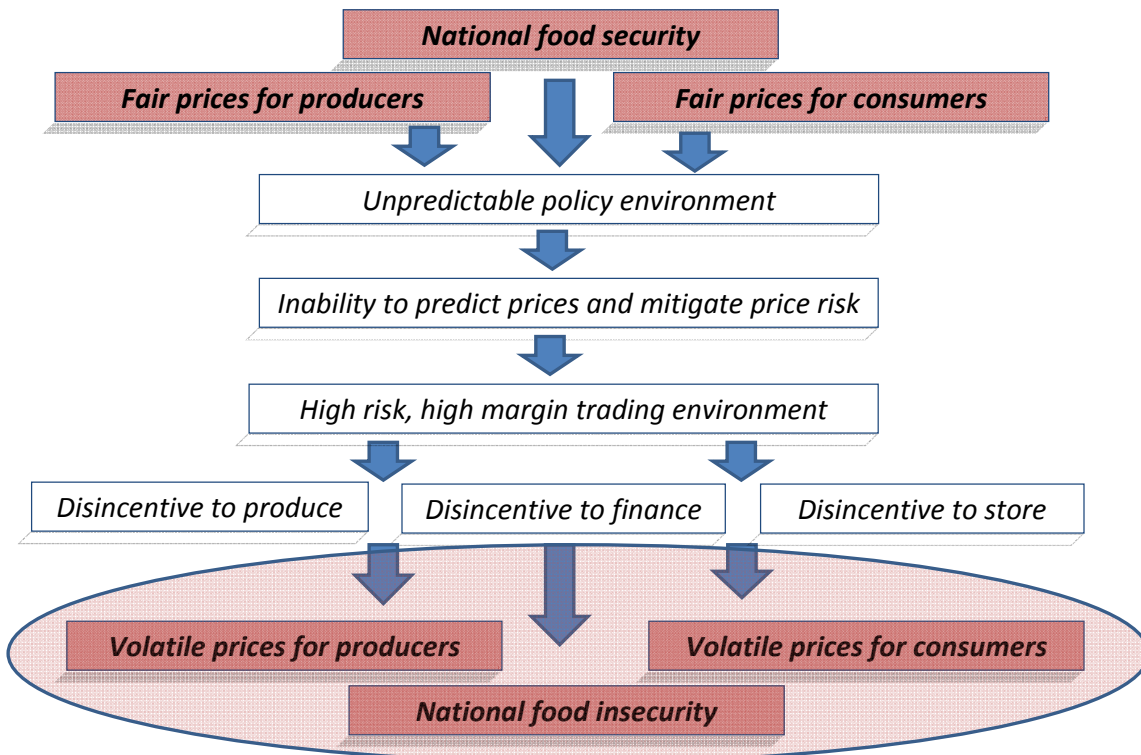
USAID
FROM THE AMERICAN PEOPLE



Alternative Strategies for National Food Reserve Management

- 1) Unintended consequences of intervention in markets - current
- 2) Alternative strategies
- 3) The consequences of intervention in markets – future?

USAID | PROFIT | Unintended Consequences of Intervention



So what are the alternatives?

1) South African-style liberalisation?

- *Some very beneficial consequences but:*
- *Difficult to mimic – each country is different*
- *Even if we wanted to liberalise to the same extent, need a step by step process*

2) Tailor-made Zambian approach:

- *Targeting specific Zambian constraints*
- *Market-based approach*
- *Reaching the same objectives:*
 - a) National Food Security***
 - b) Consumer Price Stability***
 - c) Producer Price Stability***

So what are we looking for?

Key Points

- *Crowd in rather than crowd out private sector participation*
- *Aim for lower cost market engagement*
- *Lower profile interventions aligned to market fundamentals*
- *Maintaining a **public sector role of last resort** in case of:*
 - ✓ *Domestic prices exceeding acceptable levels*
 - ✓ *Domestic stocks falling below acceptable levels*

Approach 1) Physical stock holding

Key Points

- *Small and well managed stock under direct Government control for disaster mitigation use*
- *Bought through smallholder-targeted market mechanisms at market-determined prices (ZAMACE?)*
- *Sold/revolved through market mechanisms (ZAMACE?)*

Results

- *Government becomes merely another market player*
- *No market distortion*

Approach 2: ZAMACE Call Options

Objective:

Allows a market player who might need commodity in the future to secure that commodity at a known price without having to pay for it now, and without being obliged to buy if it is not needed

Commodity might be needed for:

- ✓ *Direct provision to beneficiaries*
- ✓ *Price stabilisation by increasing supply in the market*

Solution:

*A **call option** gives the buyer the right but not the obligation to buy the underlying commodity at a set price at a set time in the future*

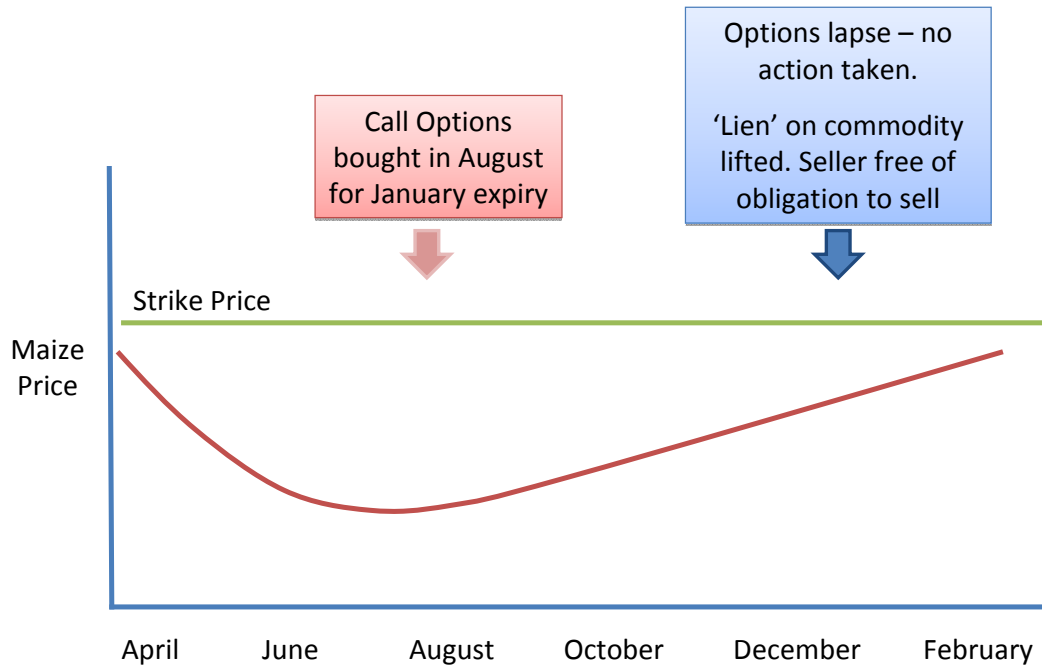
Key Points

- Buyers of call options are interested in securing a **ceiling price** or maximum price for the commodity
- The price level at which the buyer secures the ceiling price is known as the **strike price** of the option
- The buyer buys the option at an agreed price known as a **premium**, similar to an insurance premium. Sunk cost.
- When the option **expires** the buyer decides whether to exercise the option (and then buy the underlying commodity) or let it lapse

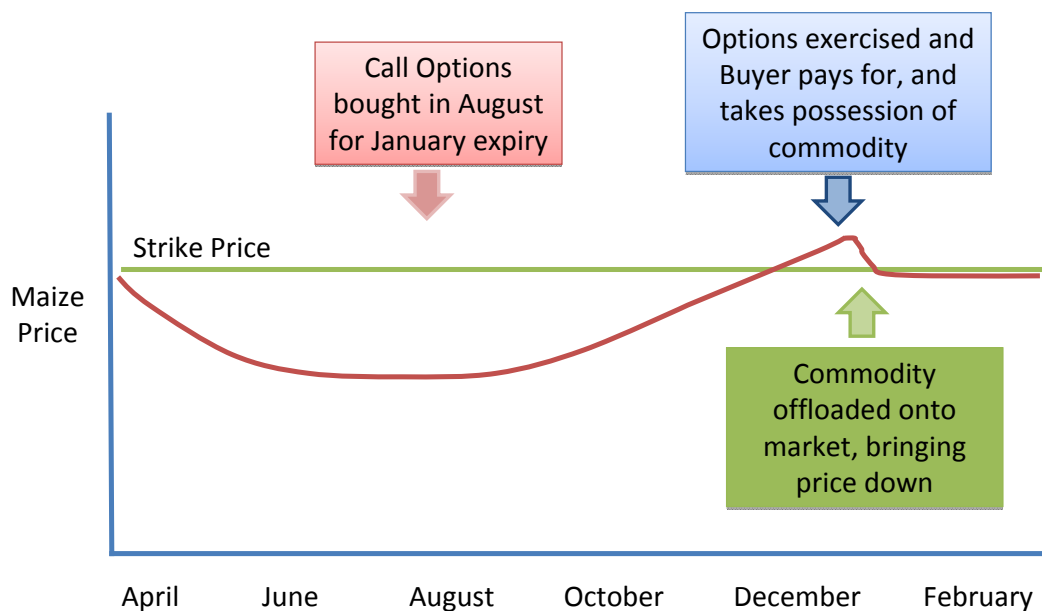
How a Call Option works:

1. A call option Buyer puts a **bid** on ZAMACE for x tons at a strike price of \$x/ton in x month's time
2. Sellers (with stock to match bid) compete on price to offer a **premium** against this bid
3. **Contract** signed and Buyer pays Seller the agreed premium
4. Buyer now has a **lien** on the Seller's crop. Crop under ZAMACE certification
5. When the option **expires**, Buyer can either exercise or let it lapse

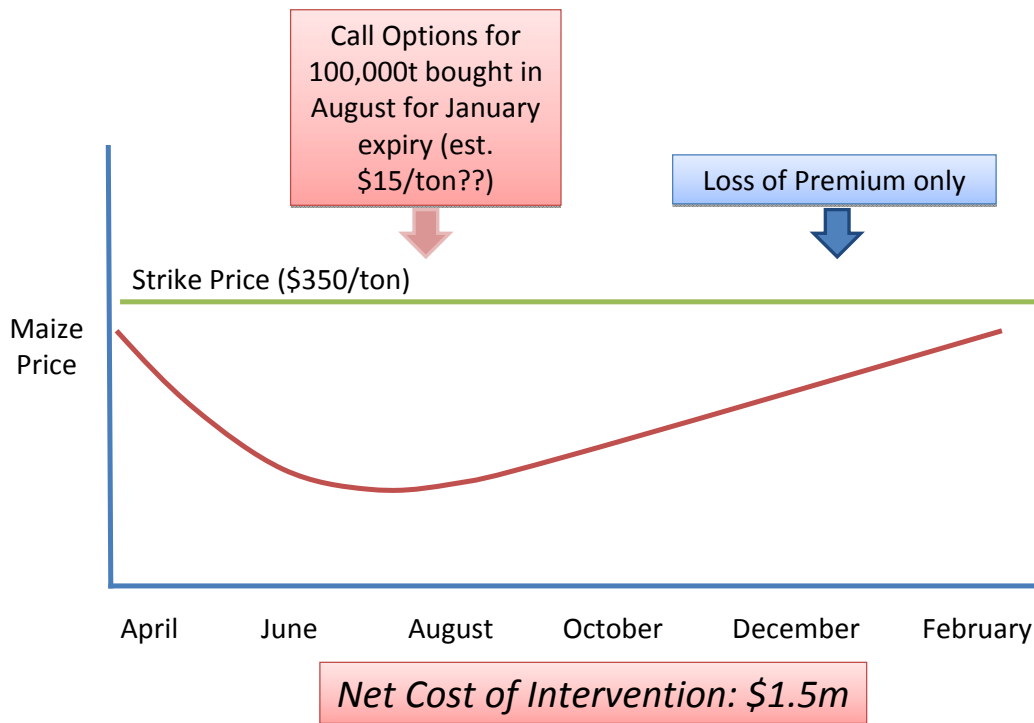
Expiry 'out of the money'



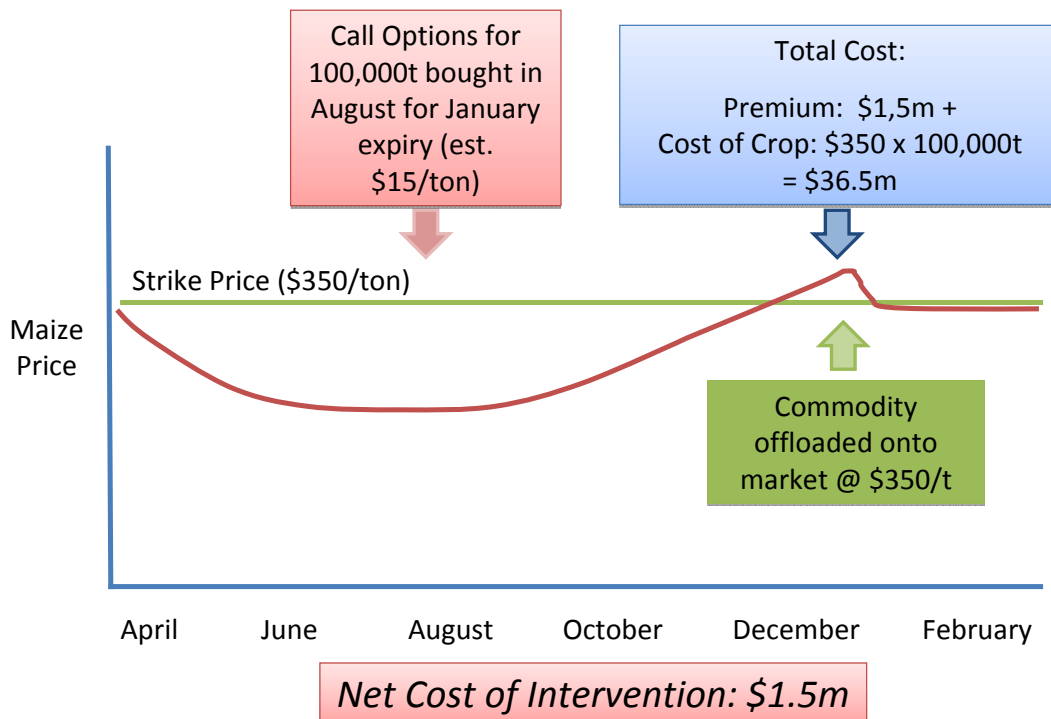
Expiry 'in the money'



What might a Call Option Cost?



Expiry 'in the money'





ZAMACE Options: Key conditions

Potential sellers are happy with this theoretical approach with the following conditions:

1. There is full market disclosure of how what volume of crop is under Call Option and the Strike Price (ZAMACE market information is public)

2. If Option is not exercised, crop reverts to 'full' ownership of Seller and Seller must be able to export crop into regional market



The benefits of ZAMACE Options

- *Entirely **market-based approach***
- *Totally **transparent**: Market knows within which parameters it can operate*
- *Relatively **cheap**: \$15-20/t 'insurance premium'*
- *Effectively and without distortion this '**caps**' market prices at the strike price*



Approach 3: ZAMACE Import Options

What about years of actual domestic shortage?

- ZAMACE can offer ‘import call option’
- Concept the same, but Option Seller secures underlying commodity on international market (through SAFEX call options)
- Buyer secures ‘right but not obligation to buy’ Non-GMO crop delivered into shed Lusaka
- Possible to buy SAFEX options directly, but complexities of currency hedge, logistics, etc



Approach 3: ZAMACE Import Options

How an Import Call Option works:

1. A call option Buyer puts a **bid** on ZAMACE for x tons at a strike price of \$x/ton in x month’s time DELIVERED LUSAKA
2. Sellers (with international call options) compete on price to offer a **premium** against this bid
3. **Contract** signed and Buyer pays Seller the agreed premium
4. When the option **expires**, Buyer can either exercise or let it lapse, with loss of premium
5. Seller obliged to import **IF** Buyer exercises option

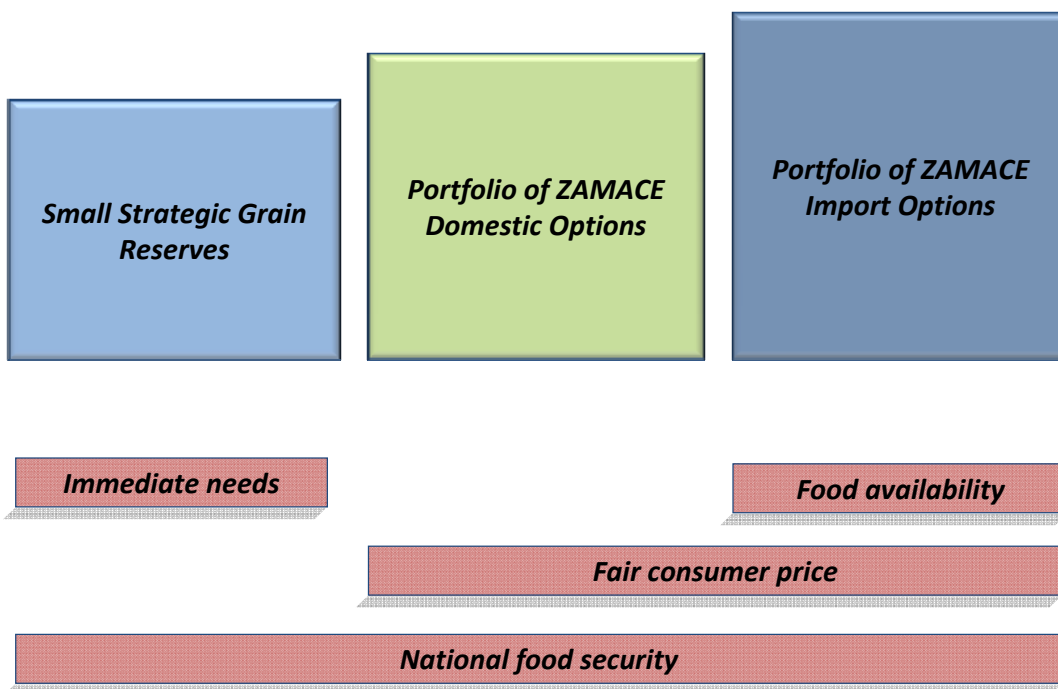


The benefits of ZAMACE Import Options

- *Entirely market-based approach*
- *Totally **transparent**: Market knows within which parameters it can operate*
- *Allows private sector to import under market conditions, but maintains **Government role of last resort***



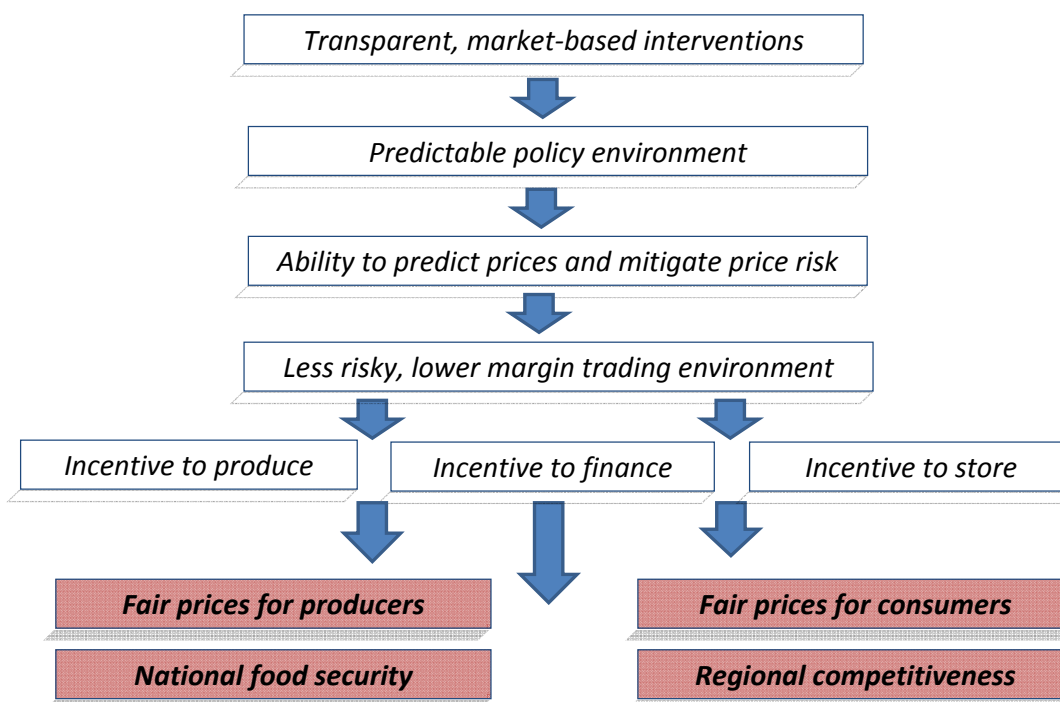
Summary of Possible Approaches



How does the producer benefit?

- *Helps to create transparent, lower margin, lower risk trading environment*
- *Keeps price risk to a minimum – market-based fluctuation only*
- *Encourages investment in production and volume*
- *ALL producers benefit from market evolution*

The Consequences of Intervention



Thank You!

