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**The role of commodity exchanges in the management of price and income volatility:
the case of Agricultural Commodity Exchange for Africa (ACE)**

By

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The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.

The role of
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Africa (ACE)



ACE Premise

The main problem in agriculture in Malawi, particularly in the maize market, is price volatility and unpredictability. When farmers put a seed in the soil, they have no idea what the price will be. In some years, the price will be lower than the production cost, which is the very reason why there is no commercial farming of maize and little commercial farming of any cash crops. It is simply too risky. Subsistence farmers don't have a choice – they must farm and hope for the best!

Make Markets Work

Any attempt to increase production – whether this is development projects, input subsidies or promotion of mega-farms – will lose its effectiveness if the market is failing!

SUPPLY SIDE

DEMAND SIDE

PRODUCTION

POST HARVEST

MARKET

FINANCE



Contract Farming
Input Distribution

Rural aggregation
Mandate Buying
Broker Services

TRAININGS

Farmer Business School
Good Agricultural Practices
Climate Smart Agriculture

ACE Marketing School
Warehouse Management
Digital Literacy
FO Leadership

Zaulimi App
AgriShare App

FO Capacity and Structure
FO Warehouse Committee
Warehouse Business Plan



Trade Facilitation
Buying Modalities

Warehouse Receipt System
Receipt Finance Modalities
Risk Mitigation Instruments
Option Contracts
Insurance Products
Commodity Fund



Market Information System
FO Marketing Committee
Rural Marketing Advisors



Collateral Management
Stock Management
Commodity Services



ACE WILL TRAIN AND SENSITISE THE FARMER ABOUT THE WAREHOUSE RECEIPT SYSTEM. A FARMER CAN ACCESS PROFESSIONAL STORAGE AND FINANCE AND GET A FAIR PRICE FOR COMMODITIES THROUGH THE WAREHOUSE RECEIPT SYSTEM.



ACE CAN FACILITATE SECURE AND RELIABLE TRANSPORT FOR FARMERS TO AN ACE CERTIFIED STORAGE SITE.



THE FARMER WILL RECEIVE A WAREHOUSE RECEIPT UPON DEPOSIT. THE STORAGE OPERATOR WILL GUARANTEE THAT QUANTITY AND THE QUALITY WILL BE MAINTAINED

THE ACE CERTIFIED STORAGE SITES ARE SECURE, FULLY INSURED AND PROFESSIONALLY OPERATED FACILITIES. ACE WILL SEND COLLATERAL MANAGERS TO INSPECT AND AUDIT THE STORAGE SITES TO ENSURE THE BEST STANDARDS.

GET THE BEST PRICE!!!

USE ACE WAREHOUSE RECEIPT

www.aceafrica.org 01 710 304



THE BUYER WILL PAY TO ACE SETTLEMENT ACCOUNT; ACE WILL PAY THE BANK; THE STORAGE OPERATOR, KEEP 1% COMMISSION AND GIVE THE BALANCE TO THE FARMER.



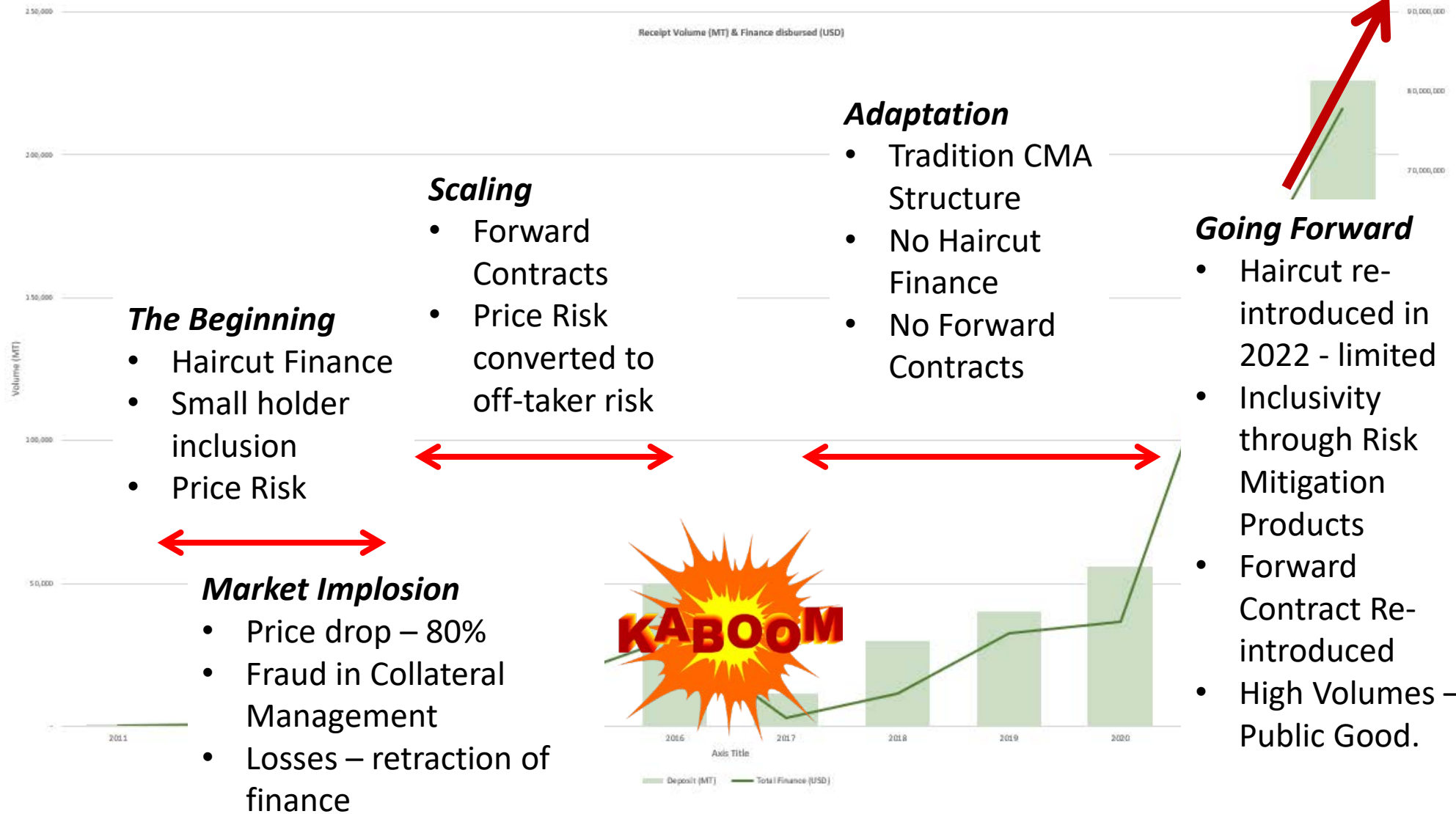
THE FARMER CAN NOW WAIT FOR A BETTER PRICE KNOWING THAT THE COMMODITY IS SAFE IN STORE. ACE WILL SEND PRICE INFORMATION ON SMS AND THE FARMER CAN DECIDE TO SELL WHEN THE PRICE IS RIGHT.



THE BANKS TRUST THE WAREHOUSE RECEIPT SYSTEM AND THEY ARE THEREFORE WILLING TO GIVE THE FARMER A LOAN KNOWING THAT THE COMMODITY IS SAFE, SECURE AND GUARANTEED BY THE STORAGE OPERATOR.

Receipt Volume and Finance

ACE Commodity Fund & option contracts/price insurance



The Beginning

- Haircut Finance
- Small holder inclusion
- Price Risk

Scaling

- Forward Contracts
- Price Risk converted to off-taker risk

Adaptation

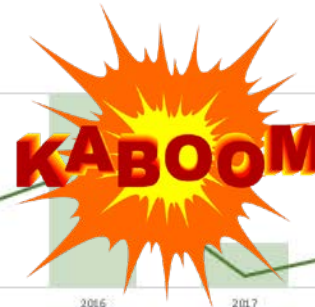
- Tradition CMA Structure
- No Haircut Finance
- No Forward Contracts

Going Forward

- Haircut re-introduced in 2022 - limited
- Inclusivity through Risk Mitigation Products
- Forward Contract Re-introduced
- High Volumes – Public Good.

Market Implosion

- Price drop – 80%
- Fraud in Collateral Management
- Losses – retraction of finance



Haircut Finance – Actual gains 2011 – 2017

The “risky” benefits for smallholders.

Average Profit for Depositors	
2011	30%
2012	25%
2013	-17%
2014	9%
2015	45%
2016	-27%
2017	16%

2013 by Commodity	
Maize	-20%
Pigeon Peas	23%

2016 by Commodity	
Beans	-3%
Cow Pea	-49%
Maize	-11%
Pigeon Peas	-82%
Popcorn	177%
Rice	-94%
Soya	-21%
Sunflower	236%

Kafulu Association Receipts

Several

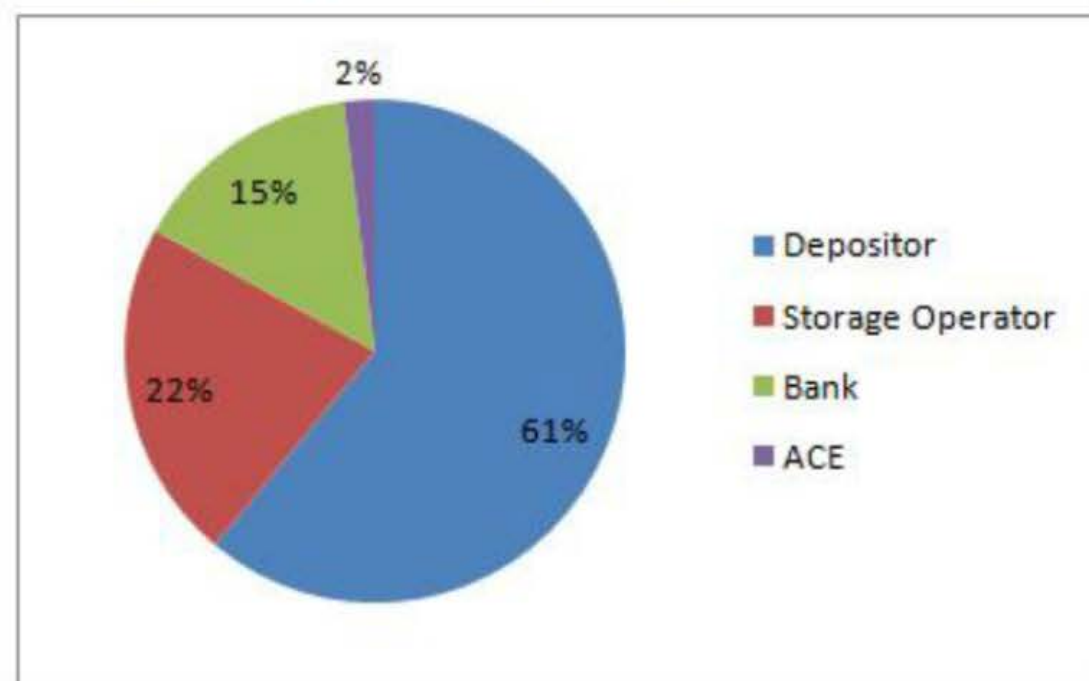
INPUT ASSUMPTIONS

WEIGHT ON RECEIPT (KG)	468,000
MOISTURE CONTENT AT DEPOSIT	14.00%
PRICE PER KG AT DEPOSIT	40
PRICE PER KG AT SALE	80
DATE IN	07/01/2012
DATE SOLD	21/02/2013
PERCENTAGE FINANCED	70.00%

OUTPUT

GROSS MARGIN	18,720,000
TOTAL COSTS	7,451,235
PROFIT	11,268,765
WR VALUE ADDED	100%
PERCENTAGE MARGIN	60%

DISTRIBUTION OF VALUE ADDED



Market
implosion 2017

Price Risk !

Who should
take it



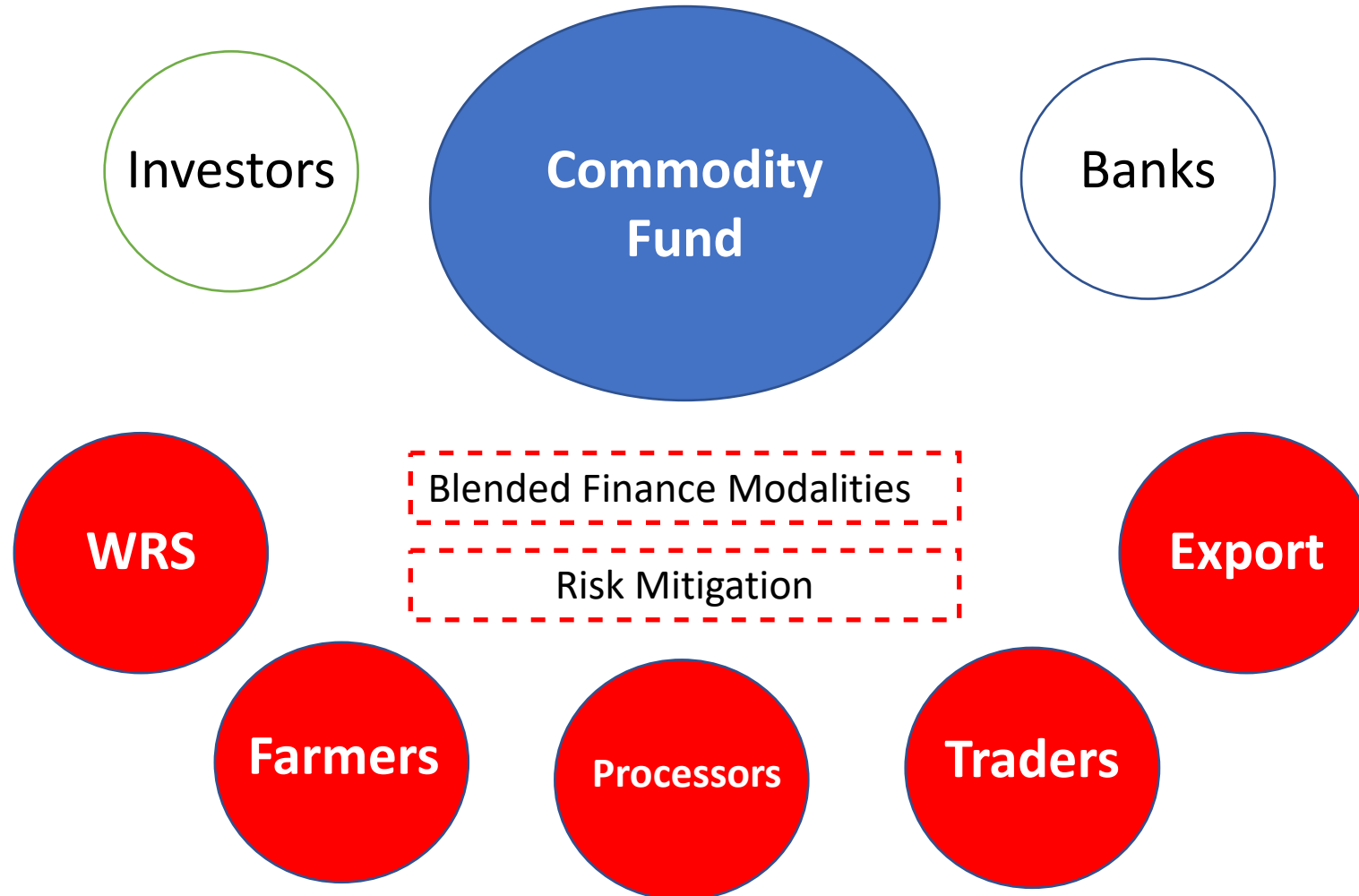
Price analysis – 2018 – 2023

Analysis shows that farmers can gain significantly from healthy post-harvest price rises in the maize and soya value chains, with price rises delivering sometimes spectacular gains.

ACE Price Data 2018-2023 – Maize	Average Price Rise	Minimum Price Rise	Maximum Price Rise
1 month from harvest	19%	9%	33%
3 months from harvest	46%	-3%	86%
6 months from harvest	64%	13%	108%

ACE Price Data 2018-2023 – Soya Bean	Average Price Rise	Minimum Price Rise	Maximum Price Rise
1 month from harvest	48%	3%	77%
3 months from harvest	66%	18%	100%
6 months from harvest	82%	22%	141%

Increase Agricultural Finance Liquidity and Financial Inclusion



Option Contracts – term sheet

Latest Reference Price	847.55 USD/MT
Latest Reference Publication Date	Sept-2021

	Option 1	Option 2
Strike Price	678.04 USD/MT	508.53 USD/MT
Limit Price	381.34 USD/MT	381.34 USD/MT

Calculation Period	Total Premium (USD/MT)	Total Premium (USD/MT)
Aug-22	23.05	5.59
Sept-22	28.56	7.37
Oct-22	33.56	8.98
Nov-22	38.56	10.59

Option Contracts works for banks – but can it protect the farmers?

- What if farmers could insurance market price after harvest
- Commercial farming – increased production
- High price volatility – high insurance/option premium

Key Question – if one would subsidize the price premium – would price volatility reduce over time so premiums would come down and reduce the need for subsidy.