



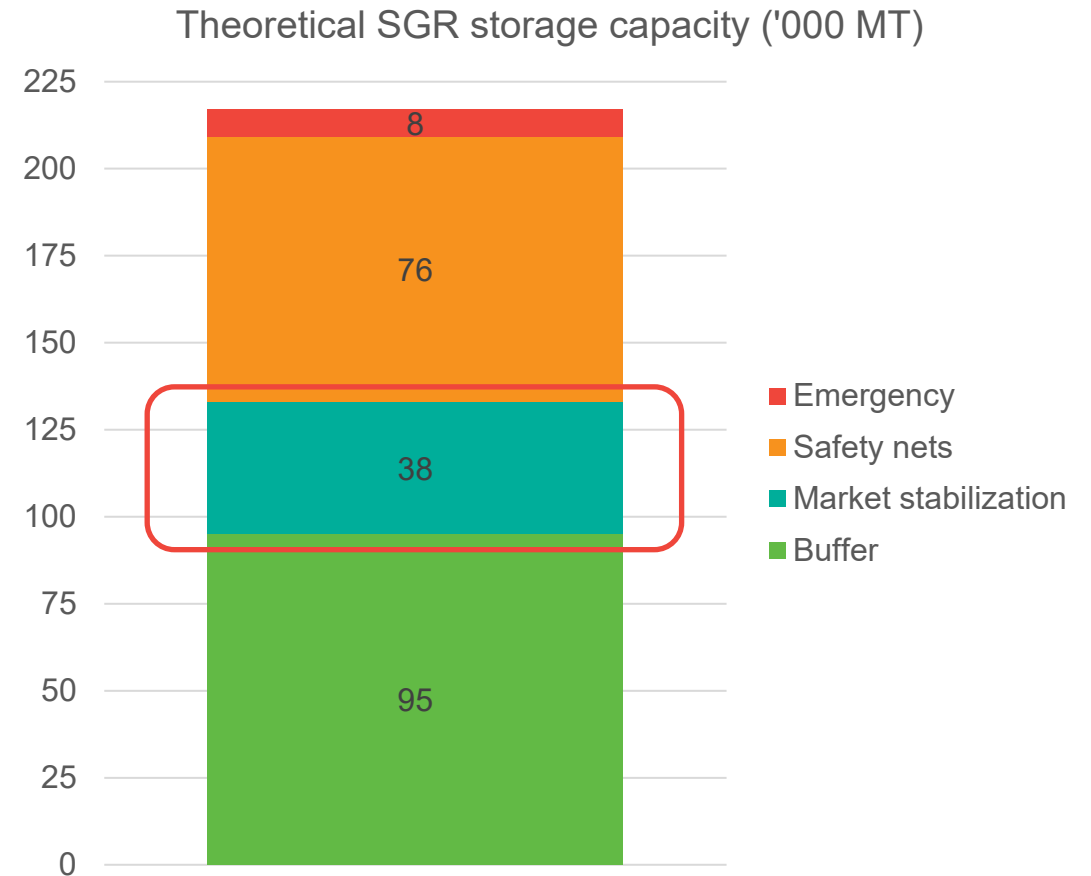
SGR and price stabilization: What policies are feasible?

Jan Duchoslav
International Food Policy Research Institute (IFPRI)

Lilongwe | 25 March 2026

SGR faces many challenges

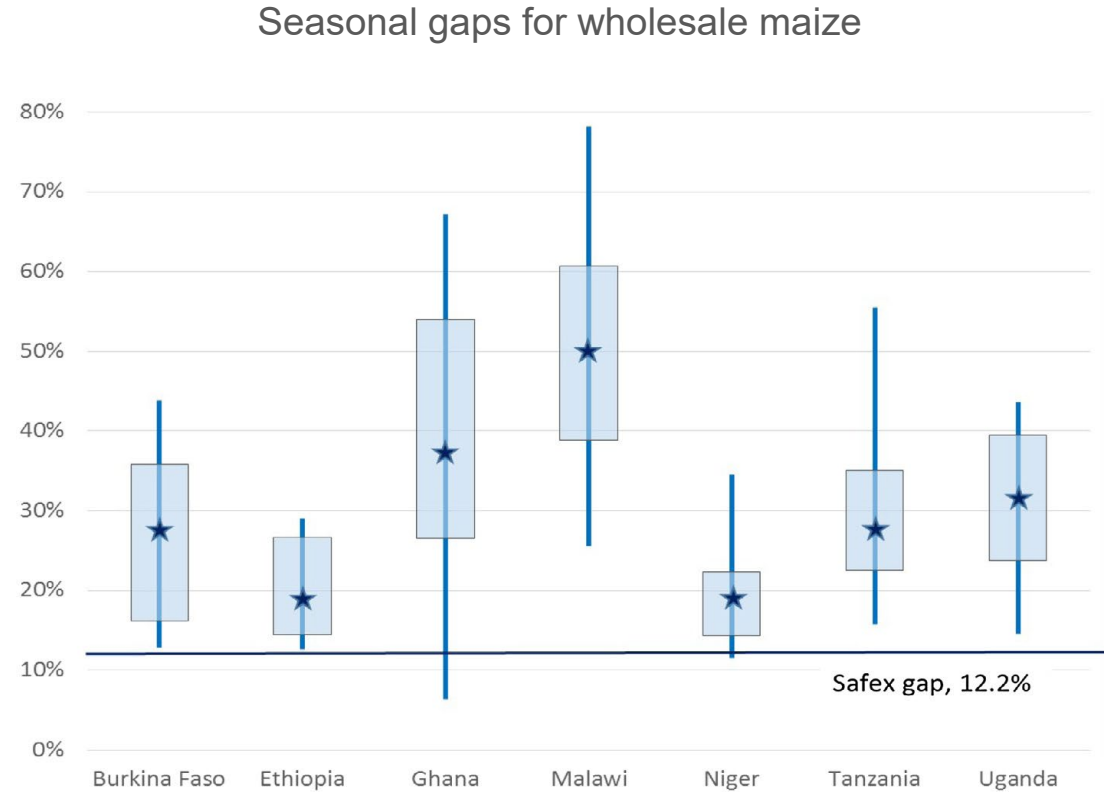
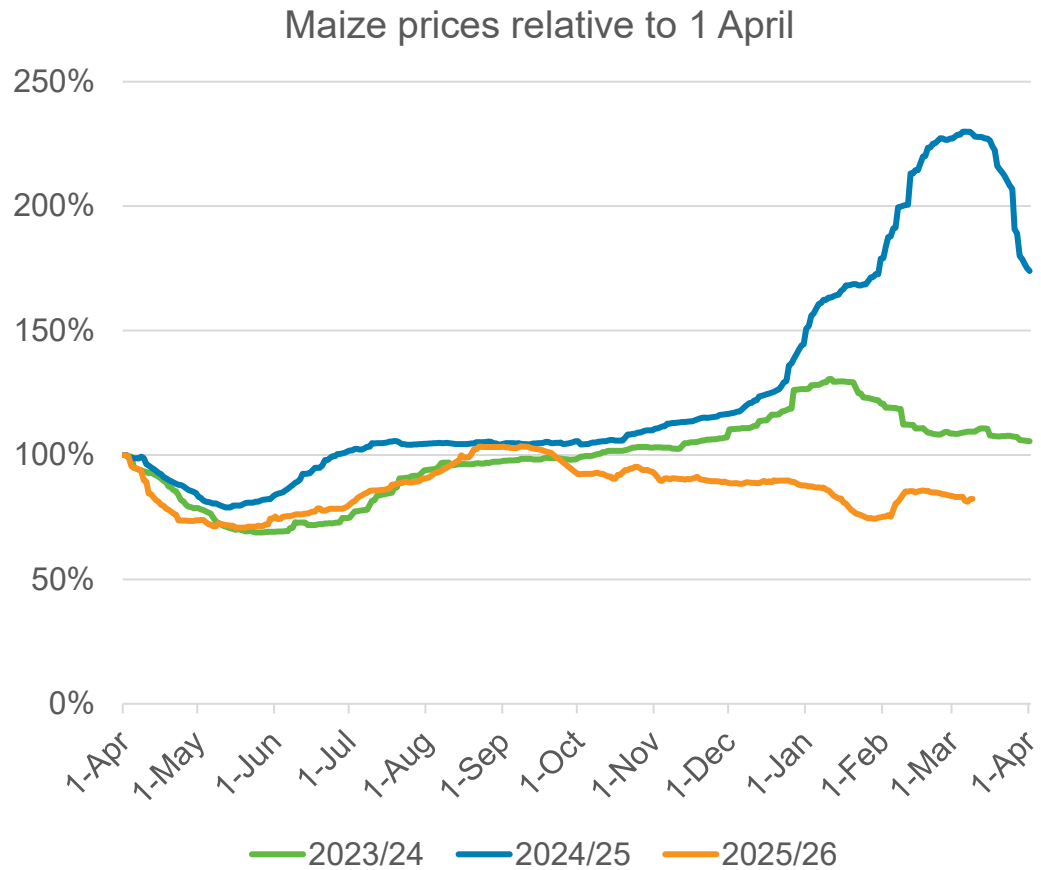
- Insufficient and late financing
- Deteriorating infrastructure
- Limited operational capacity
- Unclear separation of mandates between MRA and ADMARC
- Political interference
- ...
- Inadequate price stabilization



Outline

- Drivers of maize price volatility
- Buffer stock operations
- Defendable price bands, subject to
 - SGR capacity
 - international prices
- What can the SGR achieve?
- What other options are available?

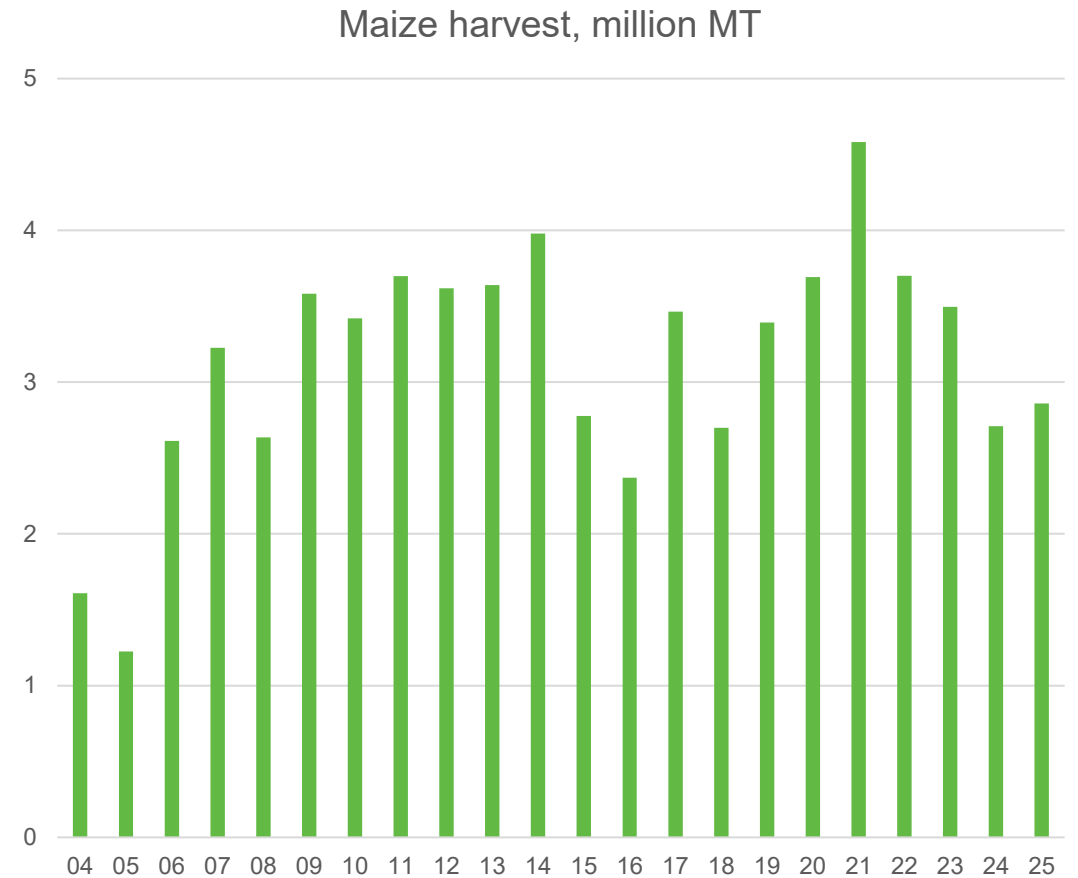
Maize price instability in Malawi



Source: Gilbert et al. (2017)

Drivers of maize price instability

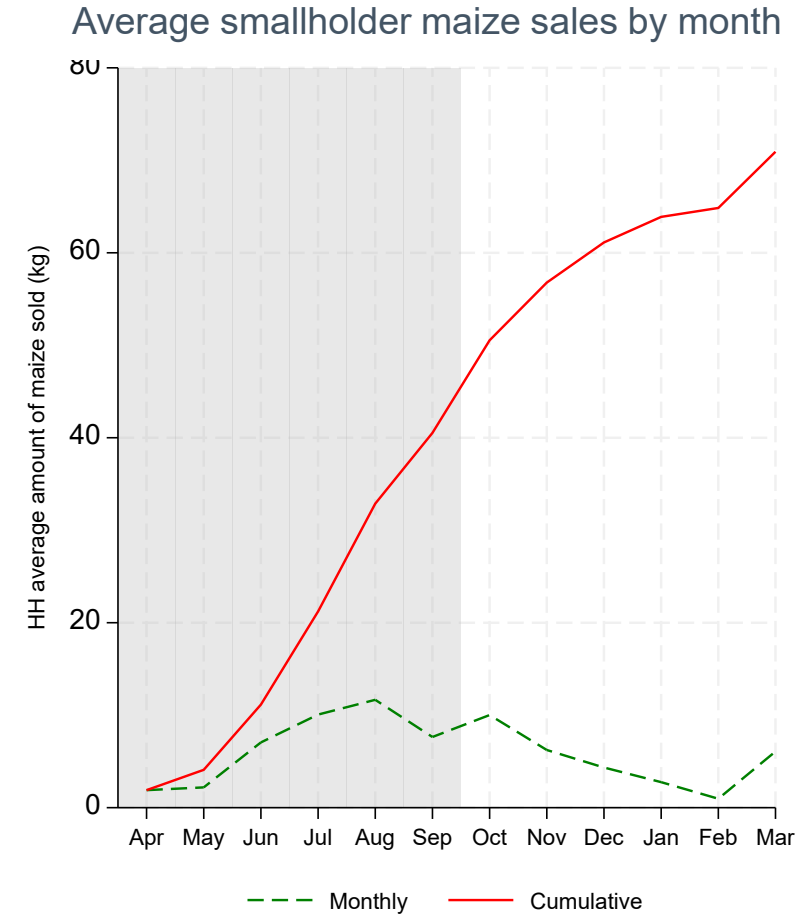
- Changes in supply – annual



Source: APES

Drivers of maize price instability

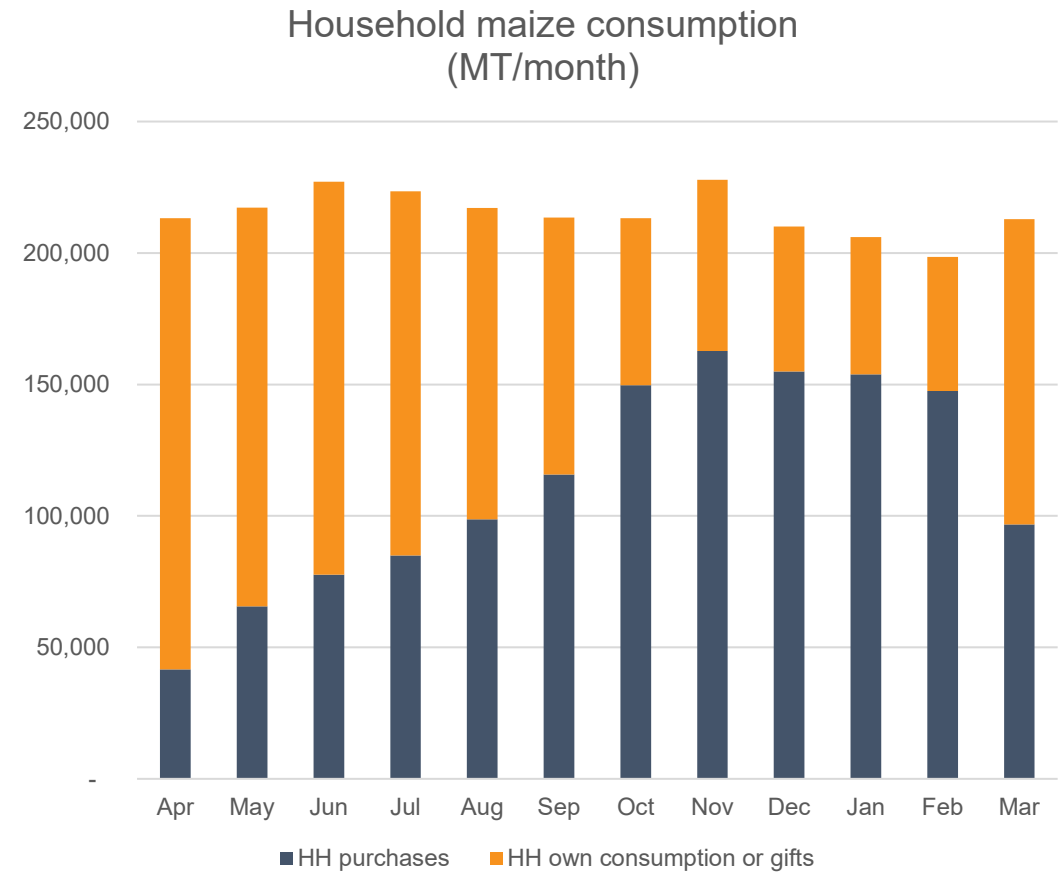
- Changes in supply – within season



Source: Chiwaula et al. (2024)

Drivers of maize price instability

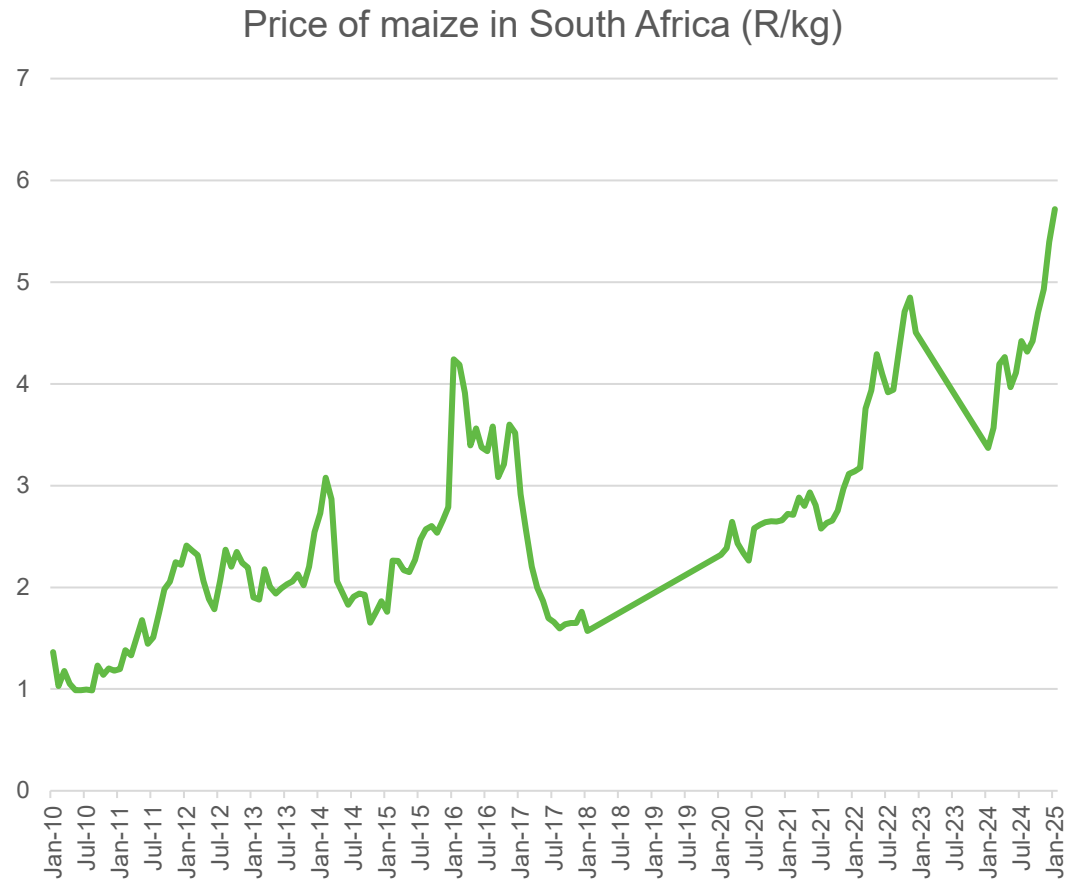
- Changes in supply – within season
- Changes in demand



Adapted from Chiwaula et al. (2024)

Drivers of maize price instability

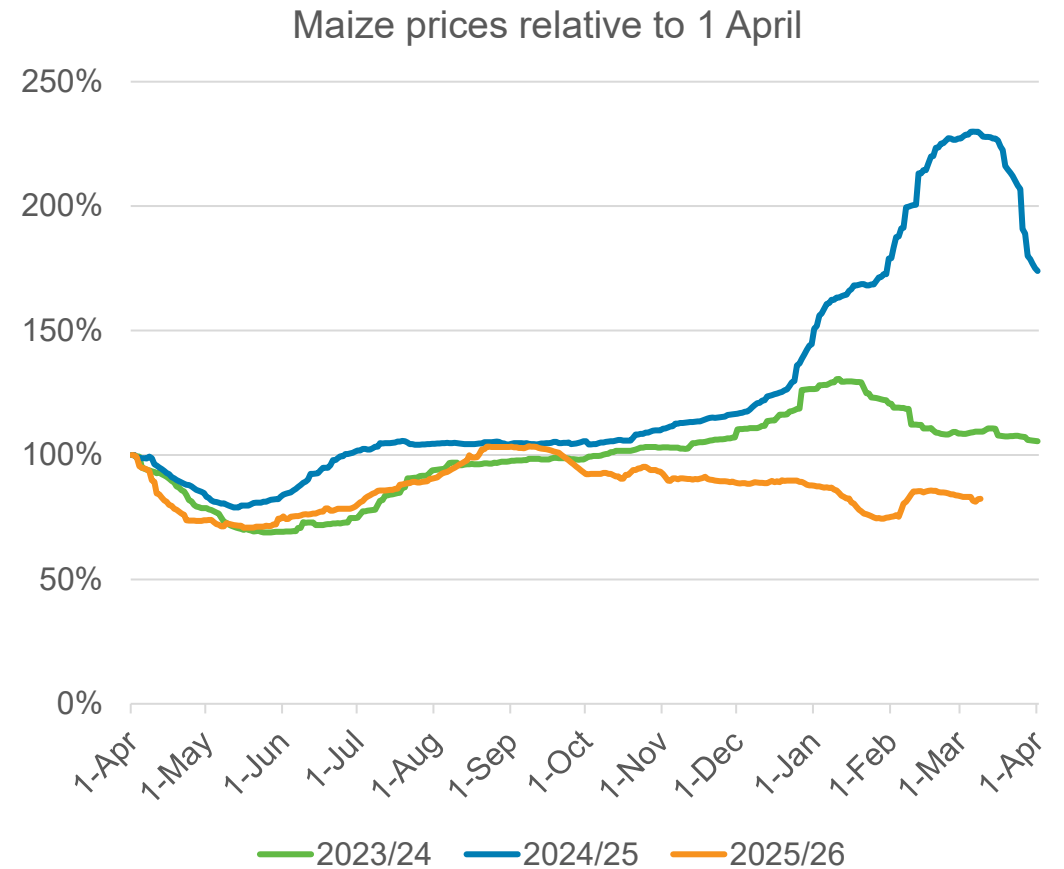
- Changes in supply
- Changes in demand
- International price volatility



Source: FAOSTAT

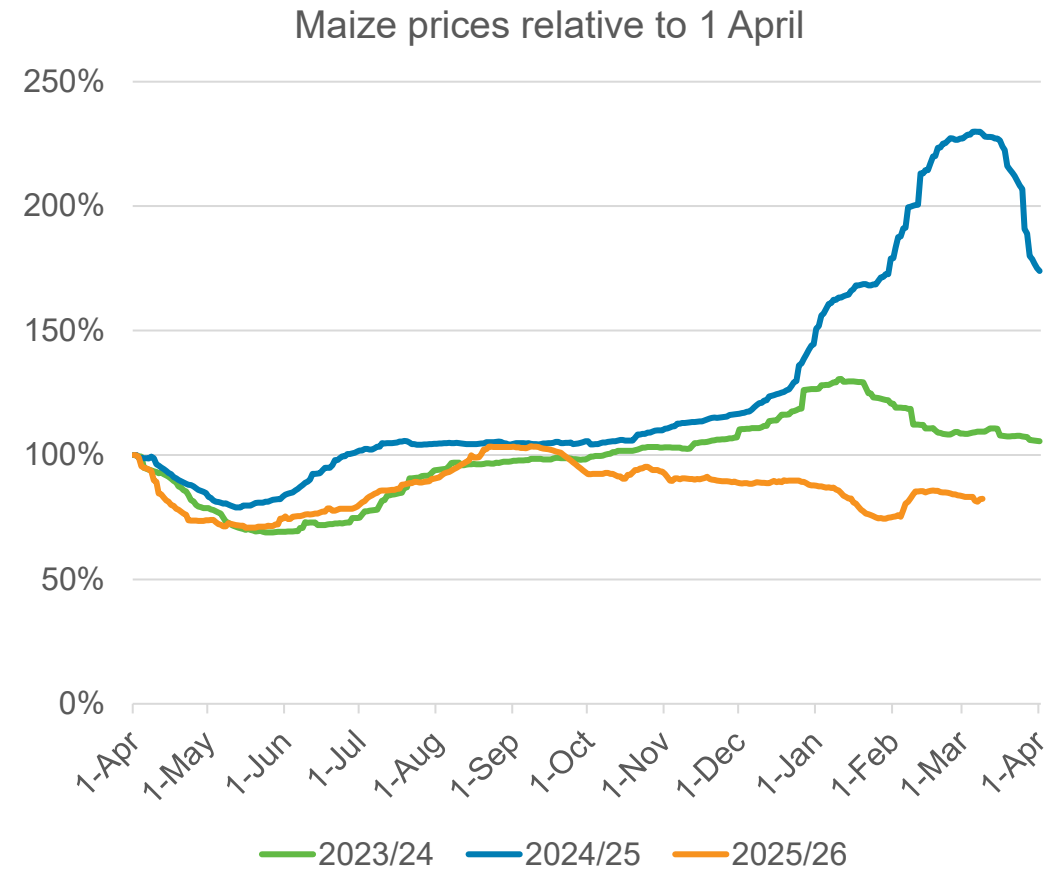
Drivers of maize price instability

- Changes in supply
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Maize price instability in Malawi

- Farmers “sell low and buy high” (Stephens & Barrett, 2011; Burke, Bergquist, & Miguel, 2018; De Weerd et al., 2024)
⇒ large welfare effects



Maize price instability in Malawi

- Farmers “sell low and buy high” (Stephens & Barrett, 2011; Burke, Bergquist, & Miguel, 2018; De Weerd et al., 2024)
 - ⇒ large welfare effects
 - ⇒ Reducing volatility could prevent millions from facing seasonal hunger (Chiwaula et al., 2024)

Mean daily calorie consumption by month



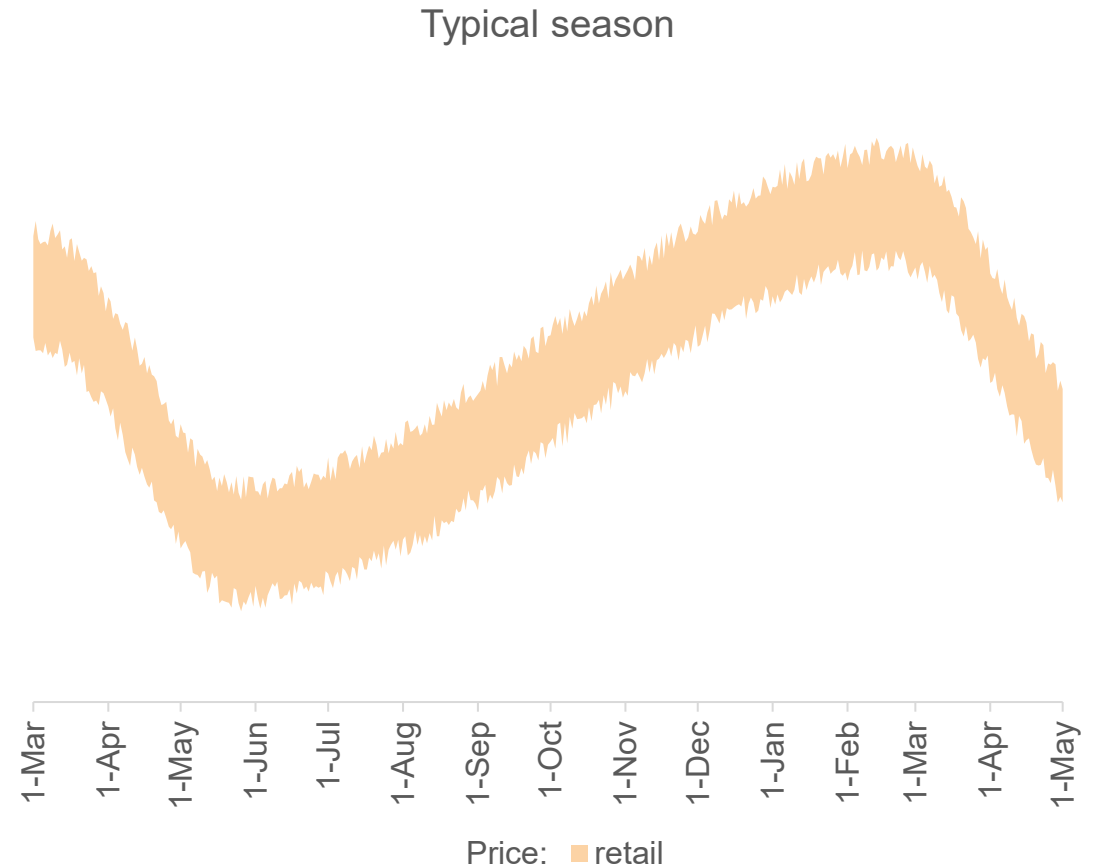
Source: Chiwaula et al. (2024)

What does Malawi do to stabilize prices?

- Prescribe minimum and maximum prices
- Influence supply by regulating imports and exports
- Influence supply and demand by selling from and buying into the SGR
 - Buffer stock operation = price stabilization

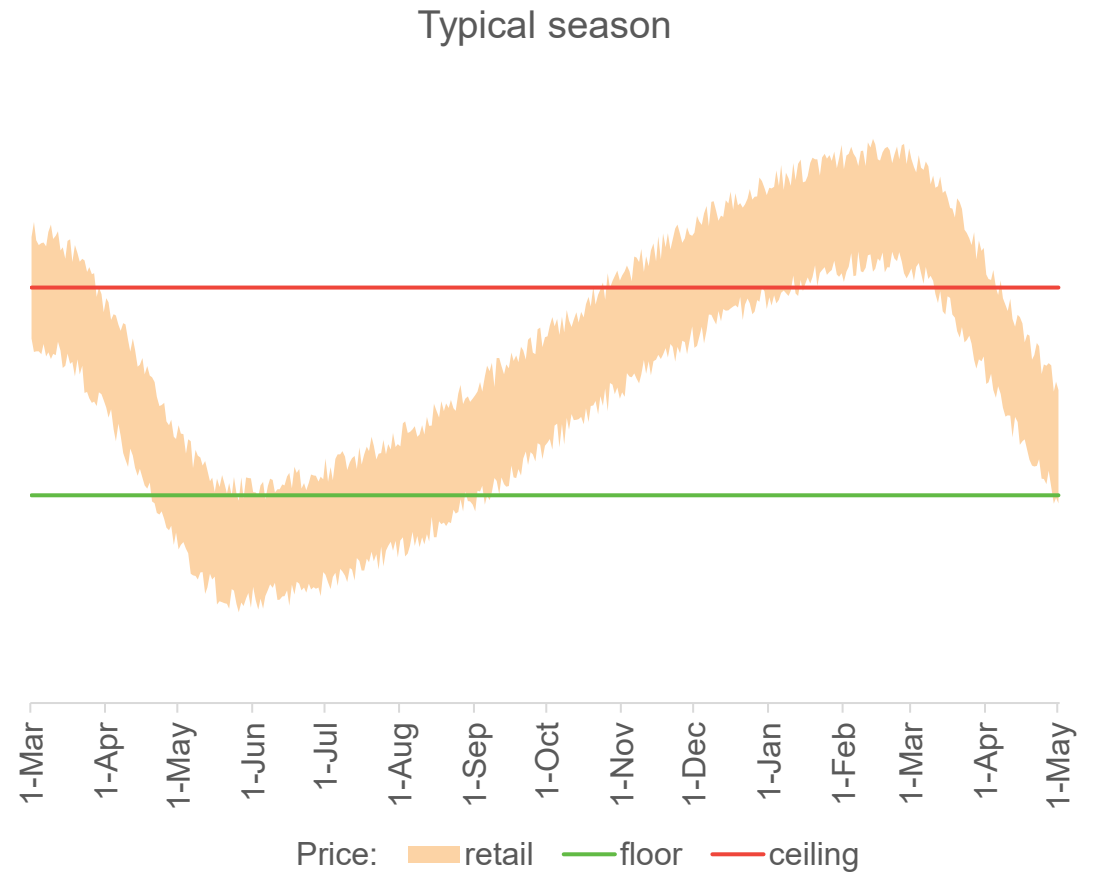
Buffer stock operation

- After harvest: high supply + low demand \Rightarrow low prices
- Before harvest: low supply + high demand \Rightarrow high prices



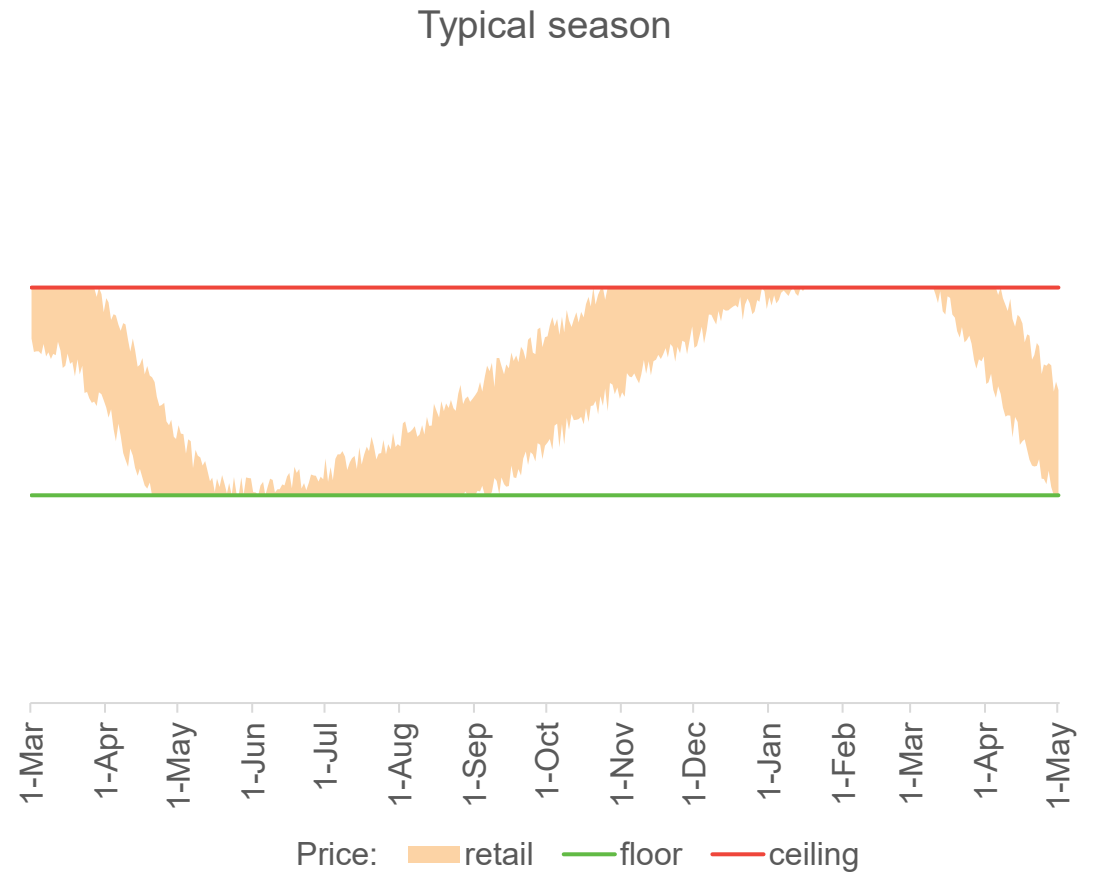
Buffer stock operation

- After harvest: high supply + low demand \Rightarrow low prices
- Before harvest: low supply + high demand \Rightarrow high prices
- Price floor and ceiling



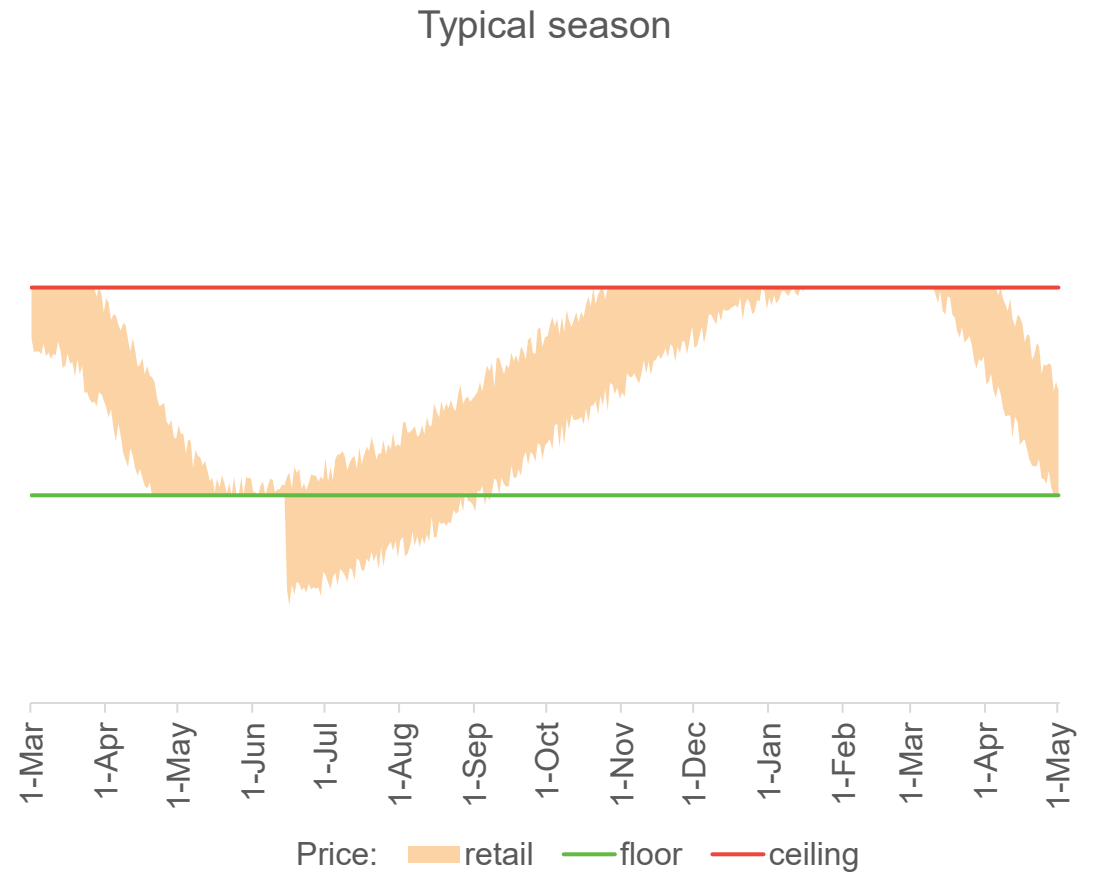
Buffer stock operation

- Low prices
⇒ SGR buys at floor price as much as producers will sell
- High prices
⇒ SGR sells for ceiling price as much as consumers will buy



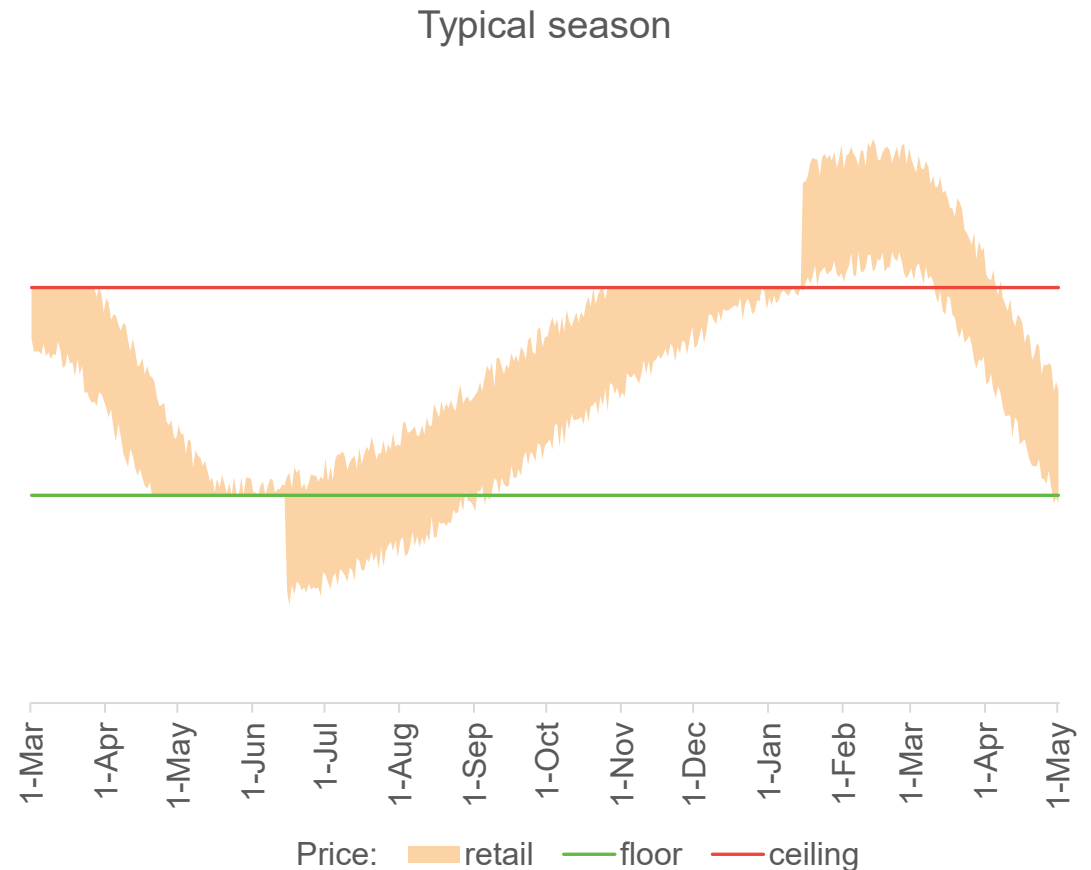
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- If producers want to sell more at floor price than buffer stock can store
⇒ Unable to defend price floor



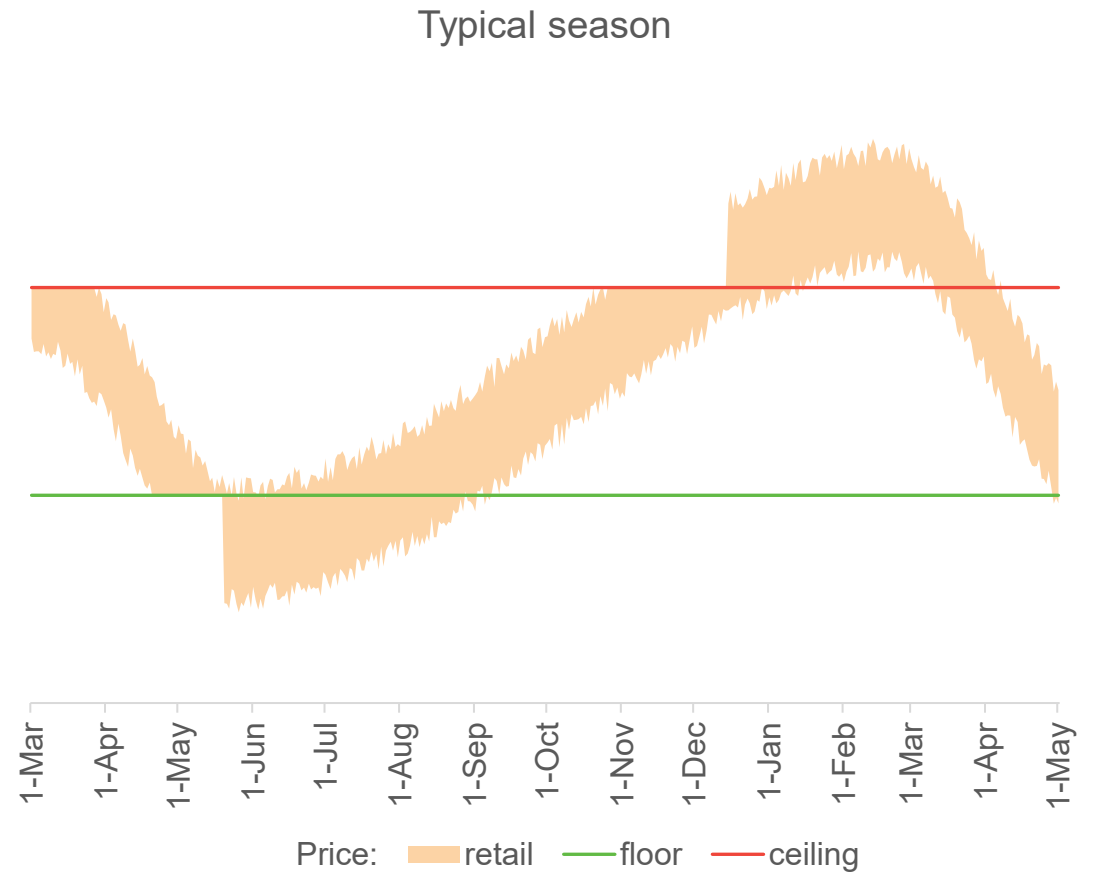
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- If producers want to sell more at floor price than buffer stock can store
⇒ Unable to defend price floor
- If consumers want to buy more at ceiling price than what is in storage
⇒ Unable to defend price ceiling



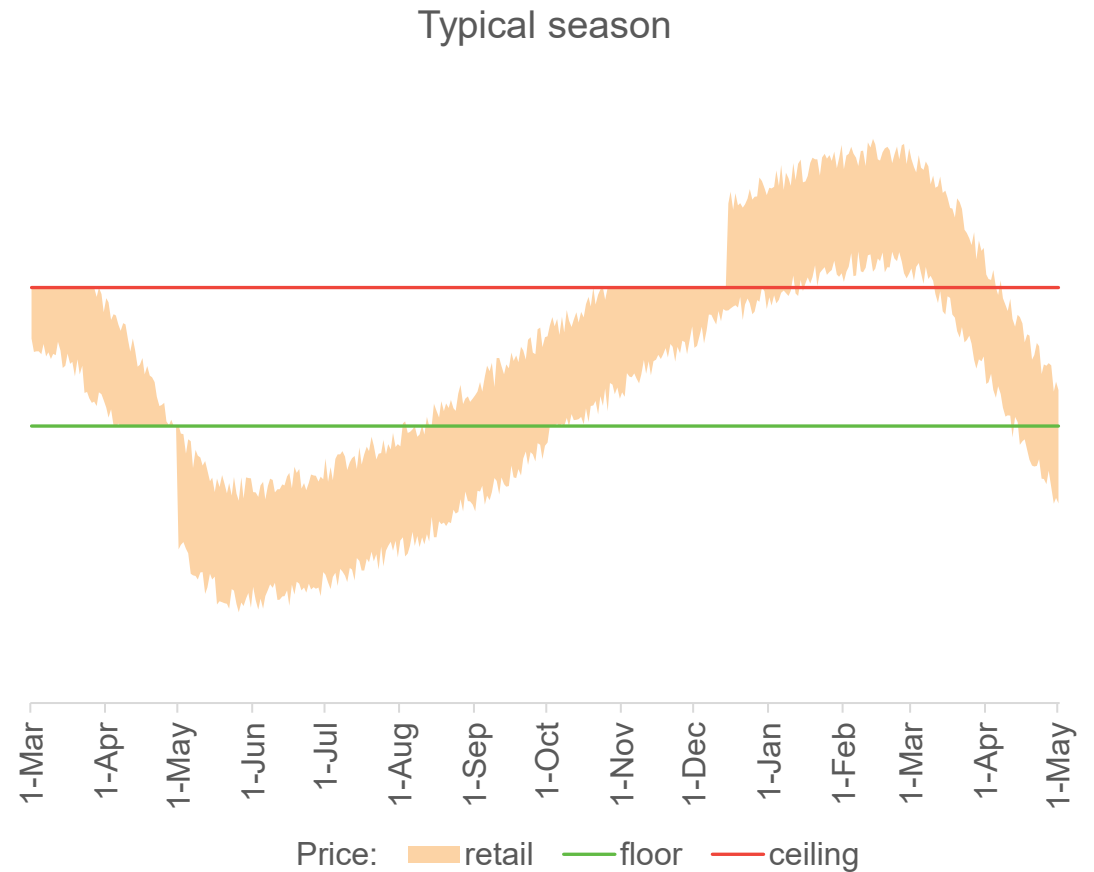
Buffer stock operation

- Smaller storage capacity
⇒ SGR stops buying/selling sooner



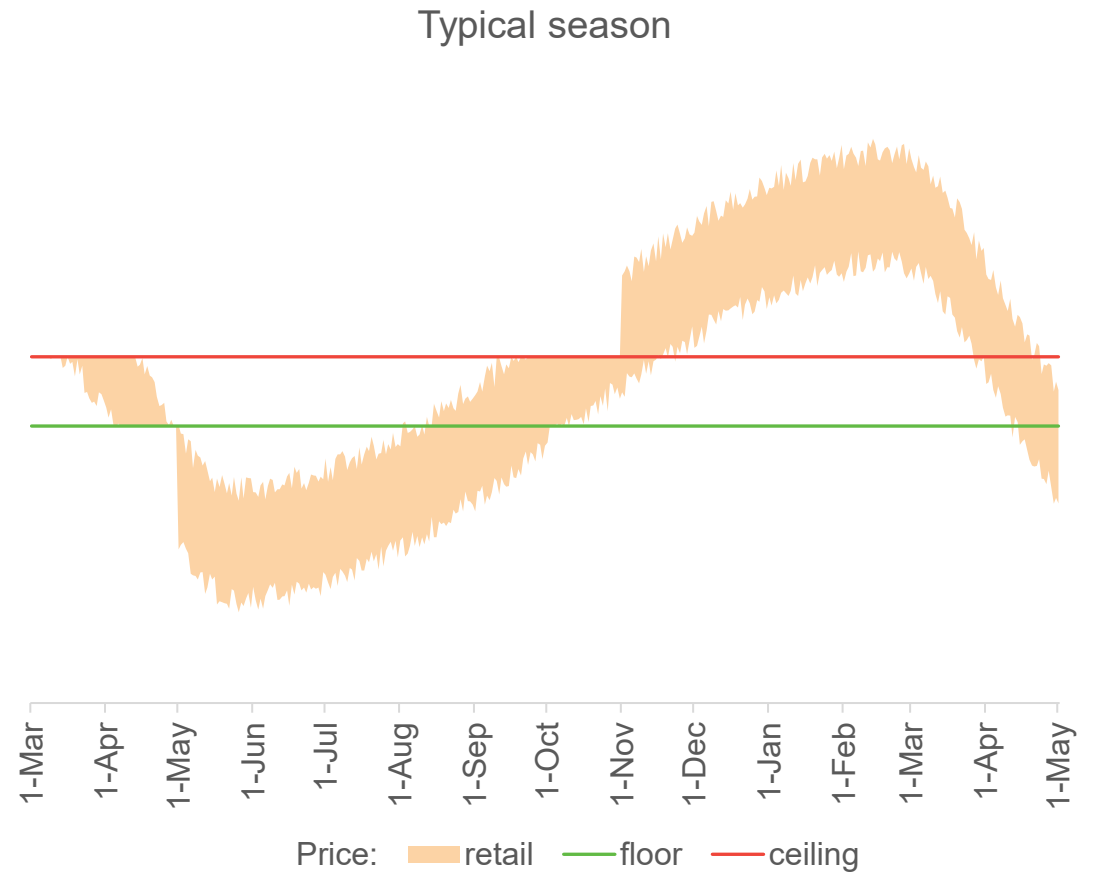
Buffer stock operation

- Smaller storage capacity
⇒ SGR stops buying/selling sooner
- Higher price floor
⇒ producers want to sell more
⇒ SGR stops buying sooner



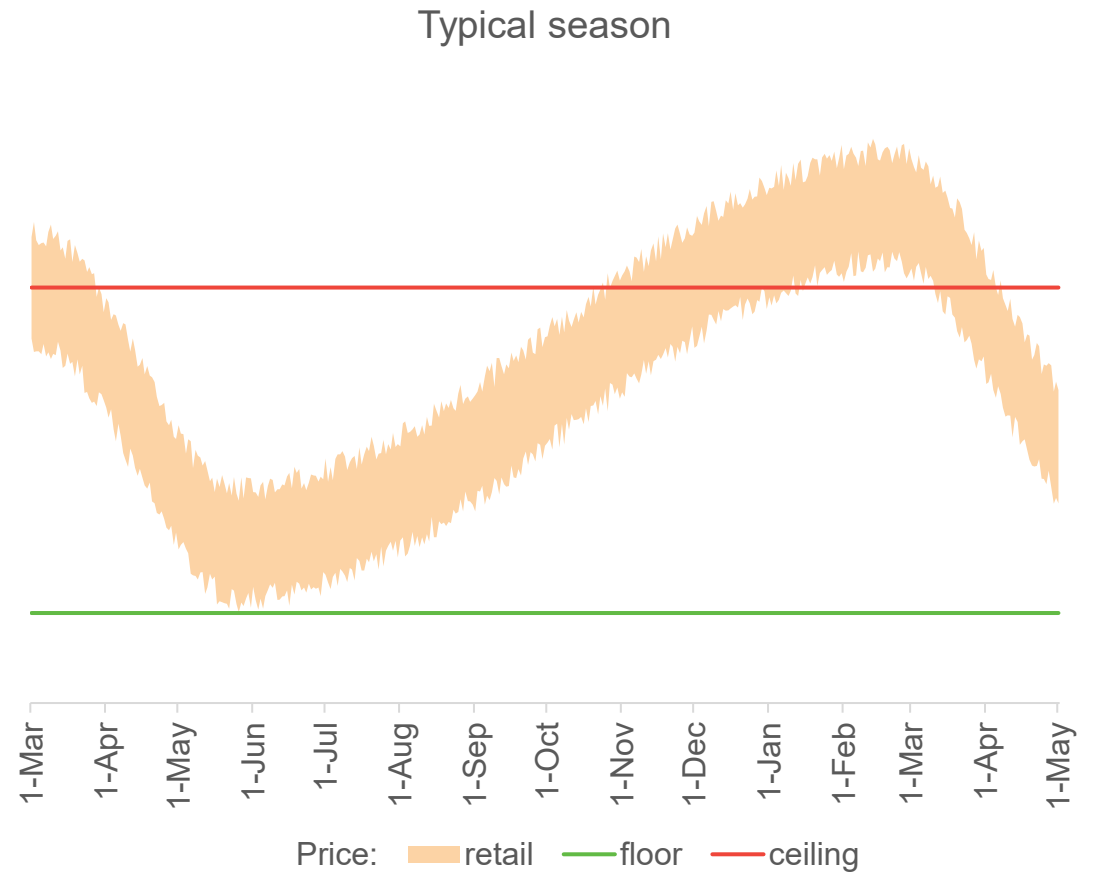
Buffer stock operation

- Smaller storage capacity
⇒ SGR stops buying/selling sooner
- Higher price floor
⇒ producers want to sell more
⇒ SGR stops buying sooner
- Lower price ceiling
⇒ consumers want to buy more
⇒ SGR stops selling sooner



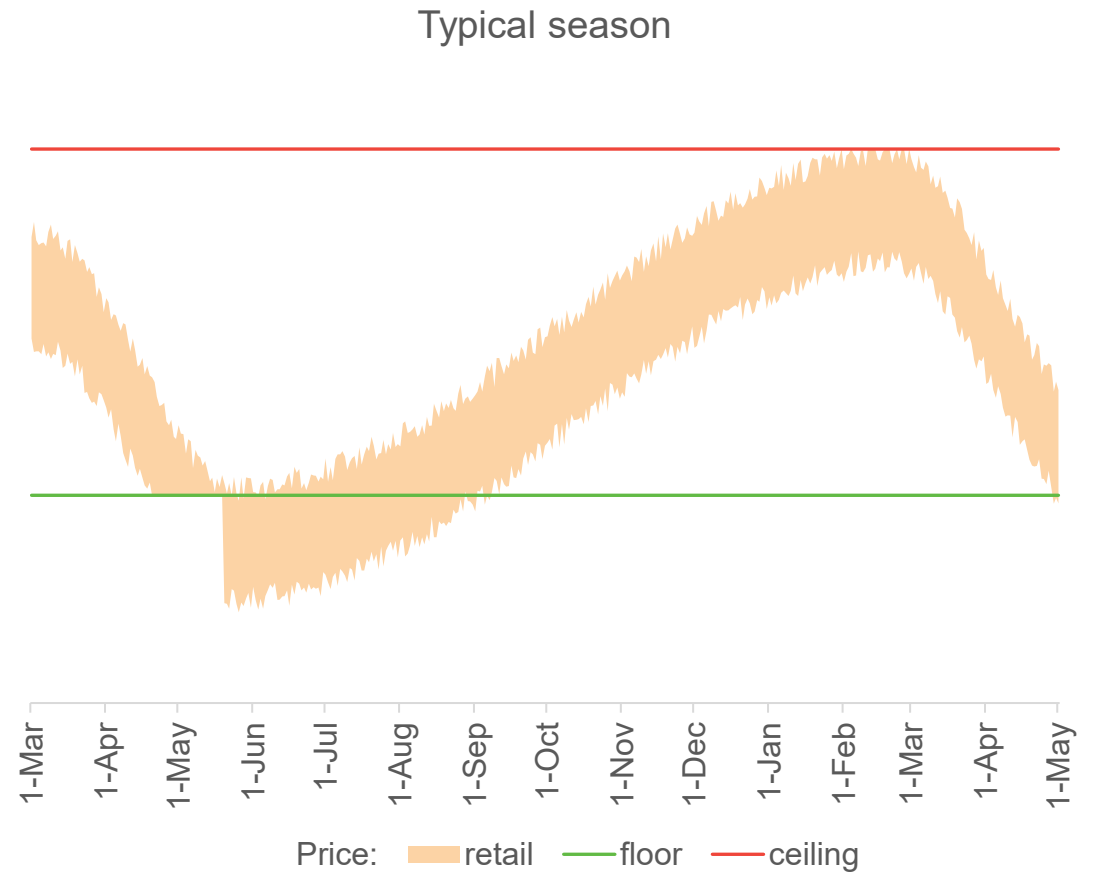
Buffer stock operation

- Price floor too low
 - ⇒ producers want to sell less
 - ⇒ unable to fill storage
 - ⇒ unable to defend price ceiling



Buffer stock operation

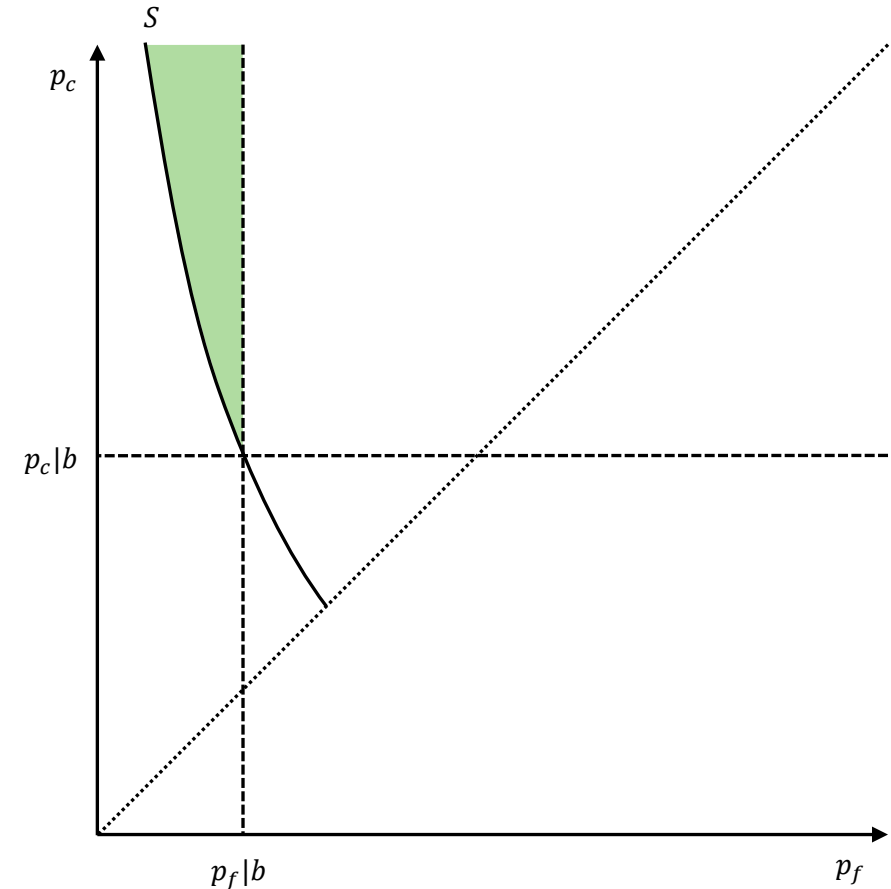
- Price floor too low
 - ⇒ producers want to sell less
 - ⇒ unable to fill storage
 - ⇒ unable to defend price ceiling
- Price ceiling too high
 - ⇒ consumers want to buy less
 - ⇒ unable to empty storage
 - ⇒ Insufficient storage to defend price floor next season



Defendable price bands

1. Storage capacity

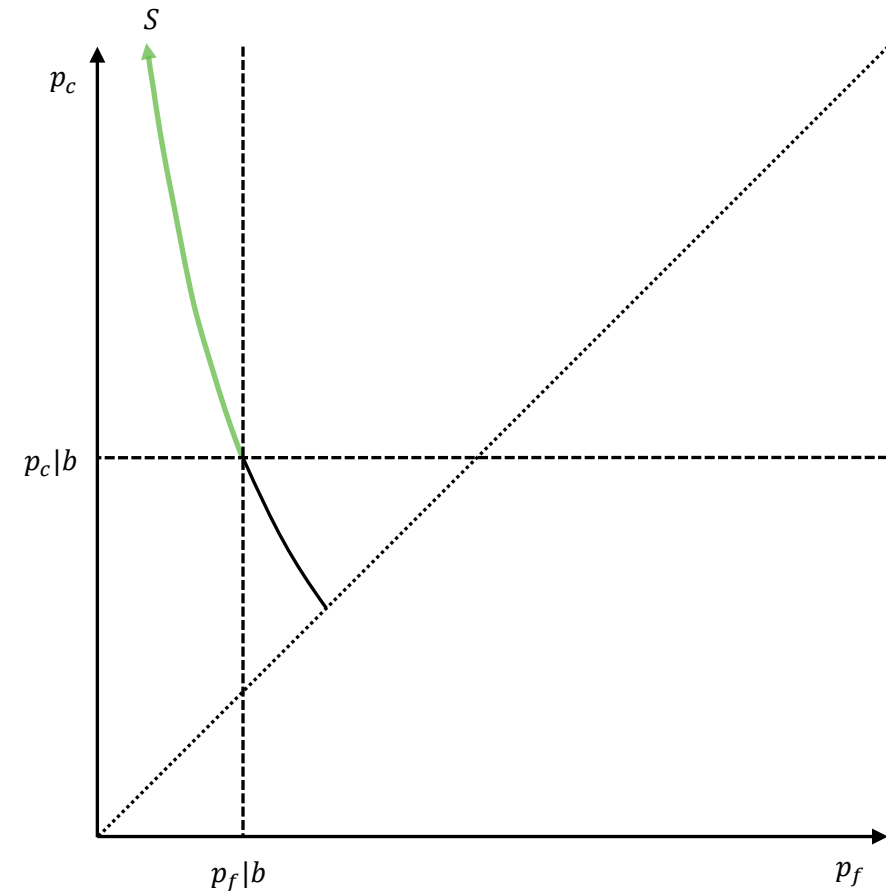
- High $p_f \Rightarrow$ producers will sell a lot
 \Rightarrow Need to set p_f low enough to not run out of storage space
- Low $p_c \Rightarrow$ consumers will buy a lot
 \Rightarrow Need to set p_c high enough to not run out of grain to sell



Defendable price bands

2. Lon-run balance

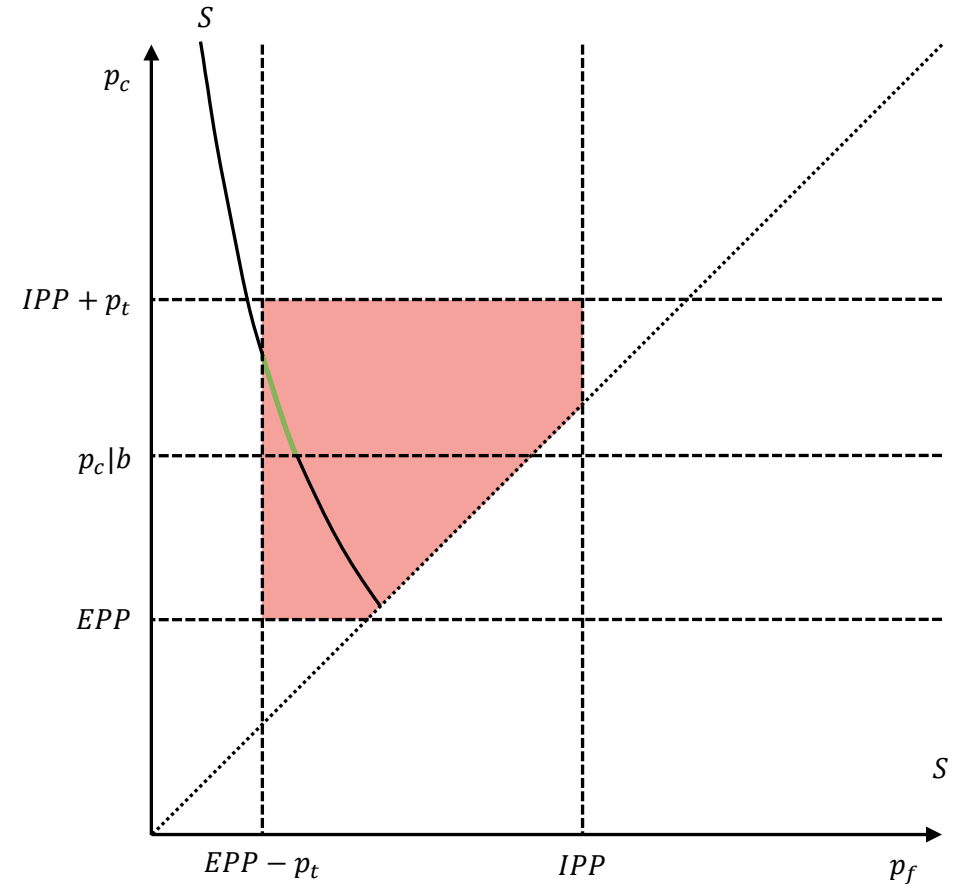
- High p_c
 - ⇒ unsold grain at the end of the lean season
 - ⇒ less space to store grain after next harvest
 - ⇒ lower p_f than with empty storage
 - ⇒ run out of storage space in a few years
- Low p_f
 - ⇒ unused storage at the end of marketing season
 - ⇒ less grain to sell during lean season
 - ⇒ higher p_f than with full storage
 - ⇒ run out of grain in a few years
- Sales = purchases



Defendable price bands

3. Cross-border trade

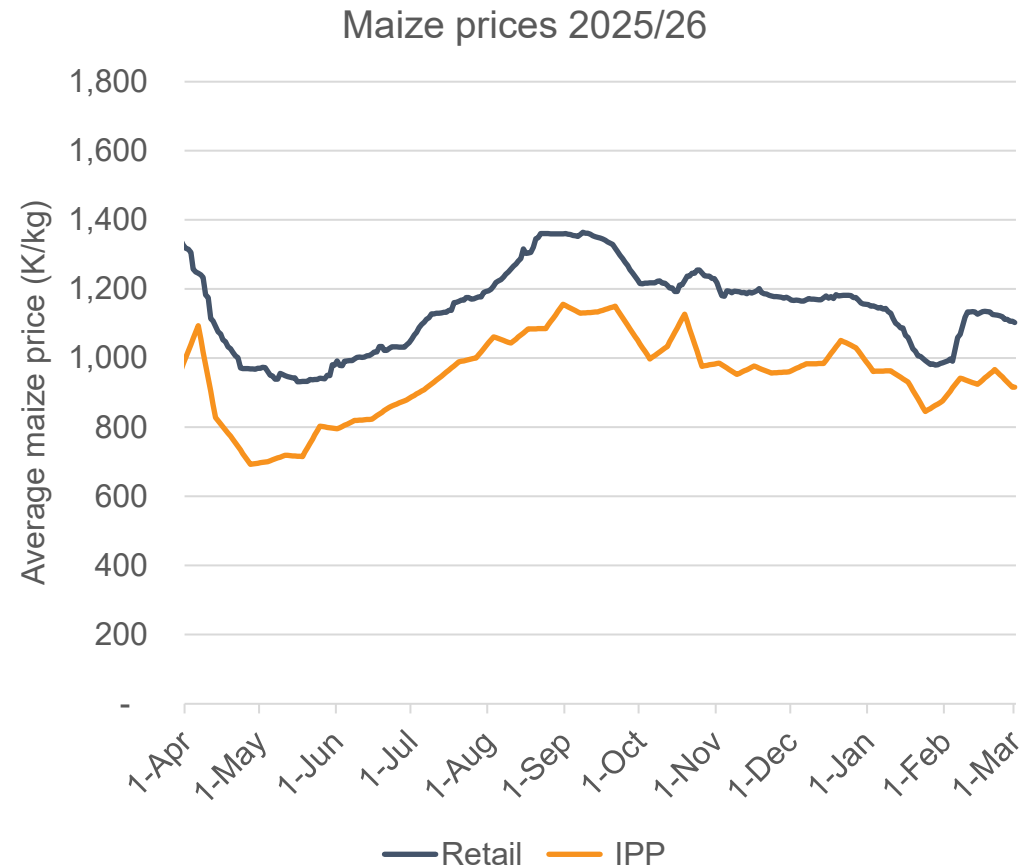
- Prices above the cost of importing grain (IPP) and transporting it to retailers (p_t)
⇒ imports boost supply and bring prices down
- Prices below what exporters pay for grain before incurring the cost of transporting it to the border ($EPP - p_t$)
⇒ exports boost demand and prop prices up
- Trade provides an effective price band



Defendable price bands

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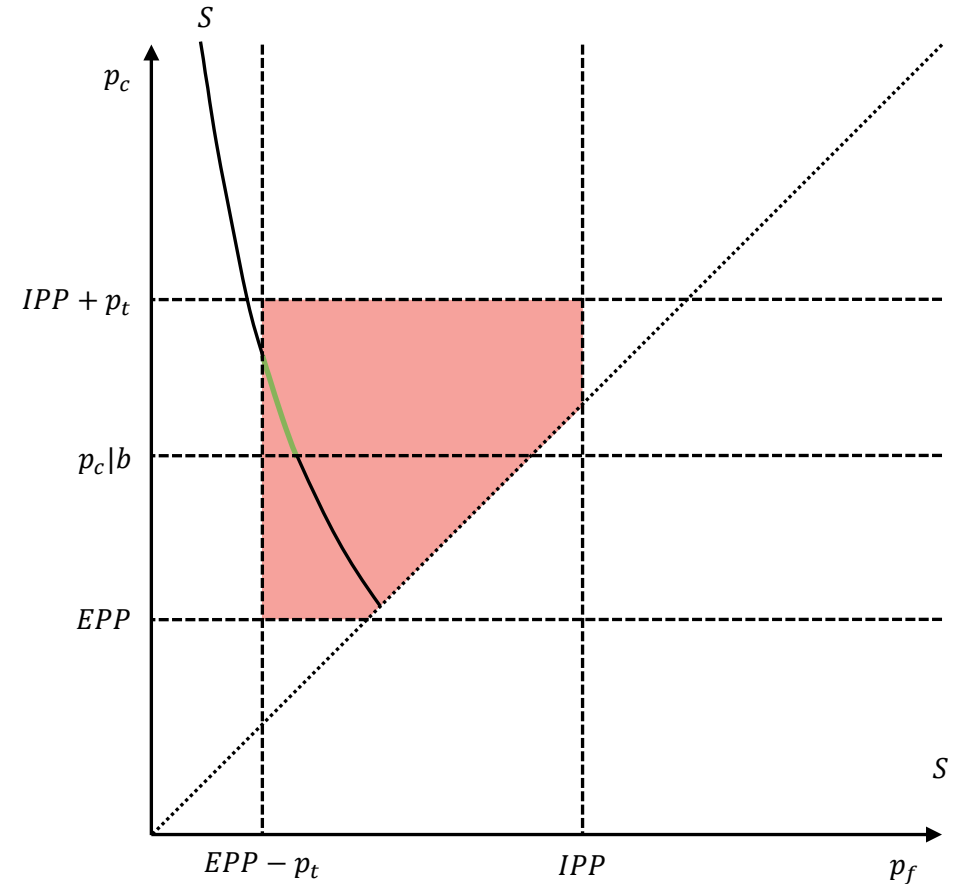
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Defendable price bands

3. Cross-border trade

- Price floor higher than price of imports
⇒ SGR purchases imported grain
⇒ domestic price will remain at *IPP*
(plus cost of transport)
- Price ceiling lower than price of exports
⇒ SGR sales will be exported
⇒ domestic price will remain at *EPP*
(minus cost of transport)
- Import and export parity prices widen
the defendable price band



Defendable price bands

4. More than one neighbor

- Low prices in ZM
 - ⇒ lowest *IPP* = K515/kg (Apr 25)
 - ⇒ highest possible price floor = K515/kg
- High prices in MZ
 - ⇒ highest *EPP* = K1,400/kg (Sep 25)
 - ⇒ lowest possible price ceiling = K1,400/kg
- Large price differences between neighboring countries widen the defendable price band further



Defendable price bands

4. More than one neighbor

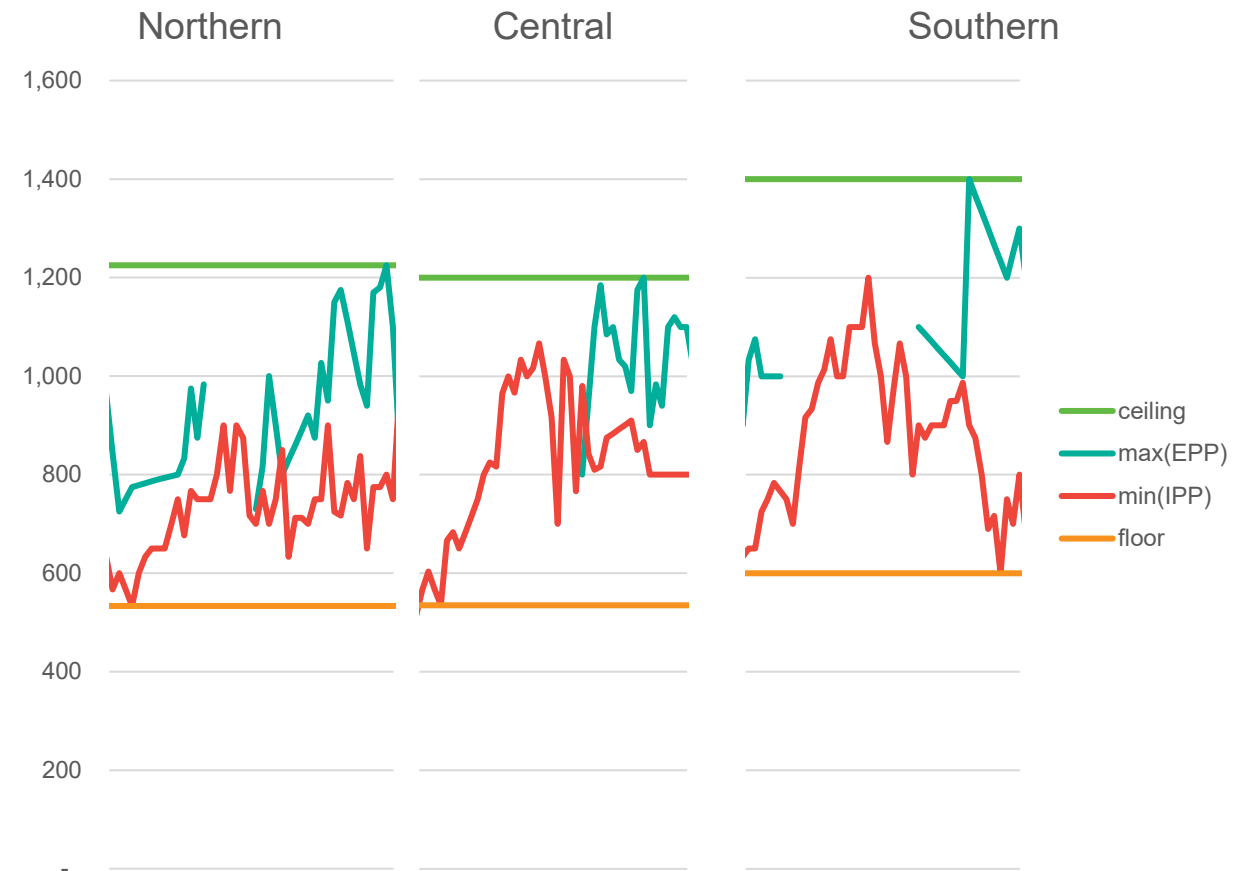
- Malawi's elongated geography
 - ⇒ large distance between neighbors
 - ⇒ larger price differences



Defendable price bands

4. More than one neighbor

- Malawi's elongated geography
 - ⇒ large distance between neighbors
 - ⇒ larger price differences
 - ⇒ prices higher in MZ & Southern Region than in ZM & Central Region and TZ & Northern Region
 - ⇒ regional price bands could be a little narrower

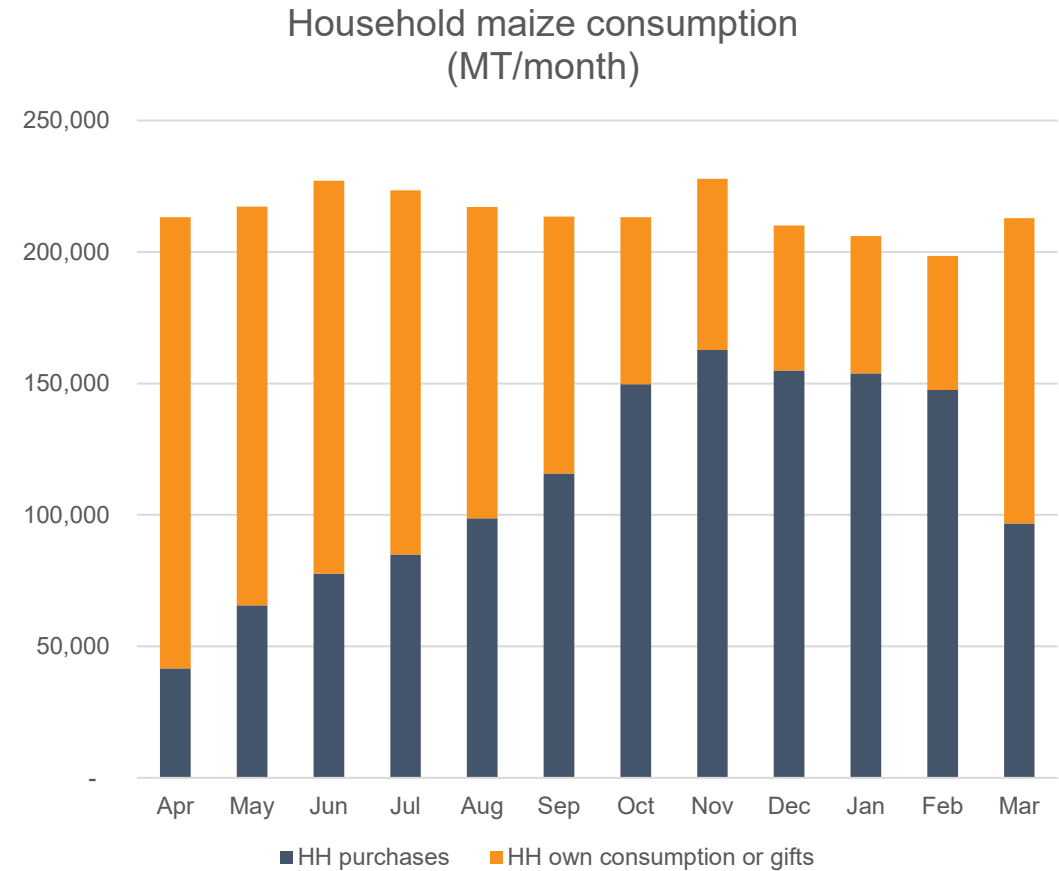


Defendable price bands

- Main limits on price stabilization
 - Storage capacity
 - Import and export parity prices

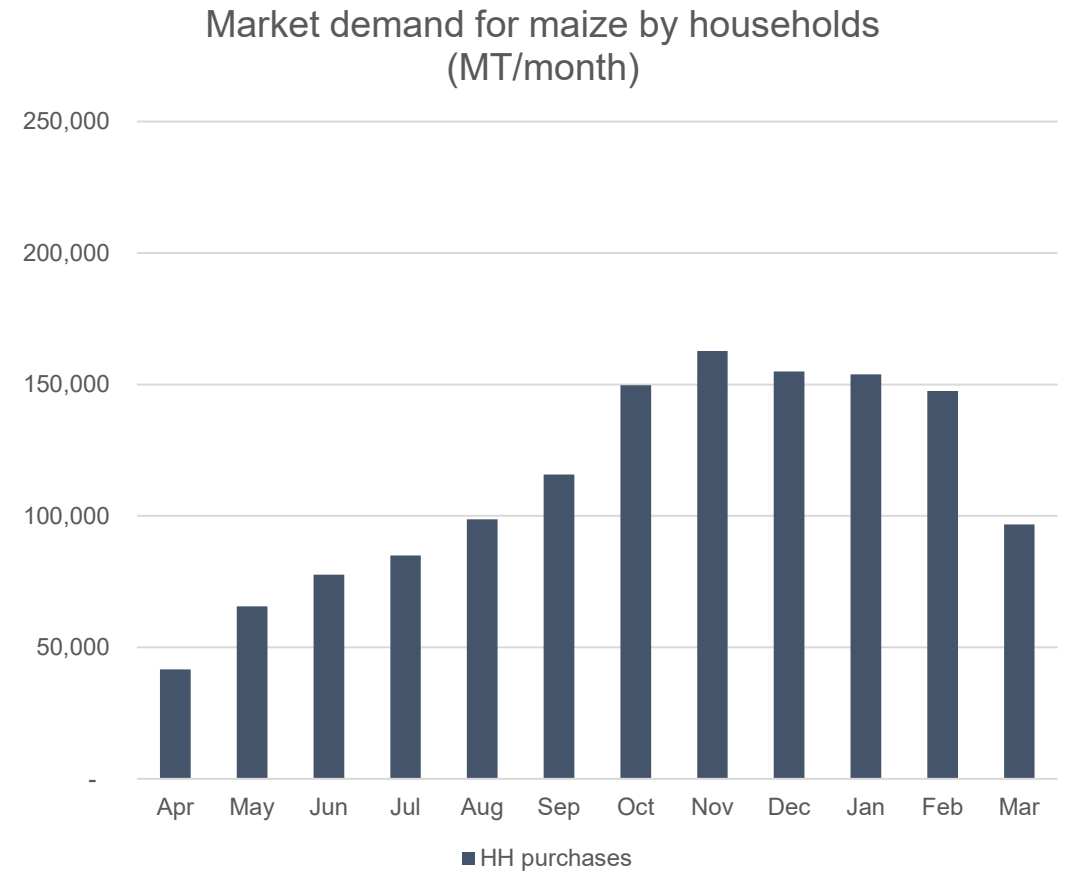
SGR storage capacity

- HH market purchases are seasonal



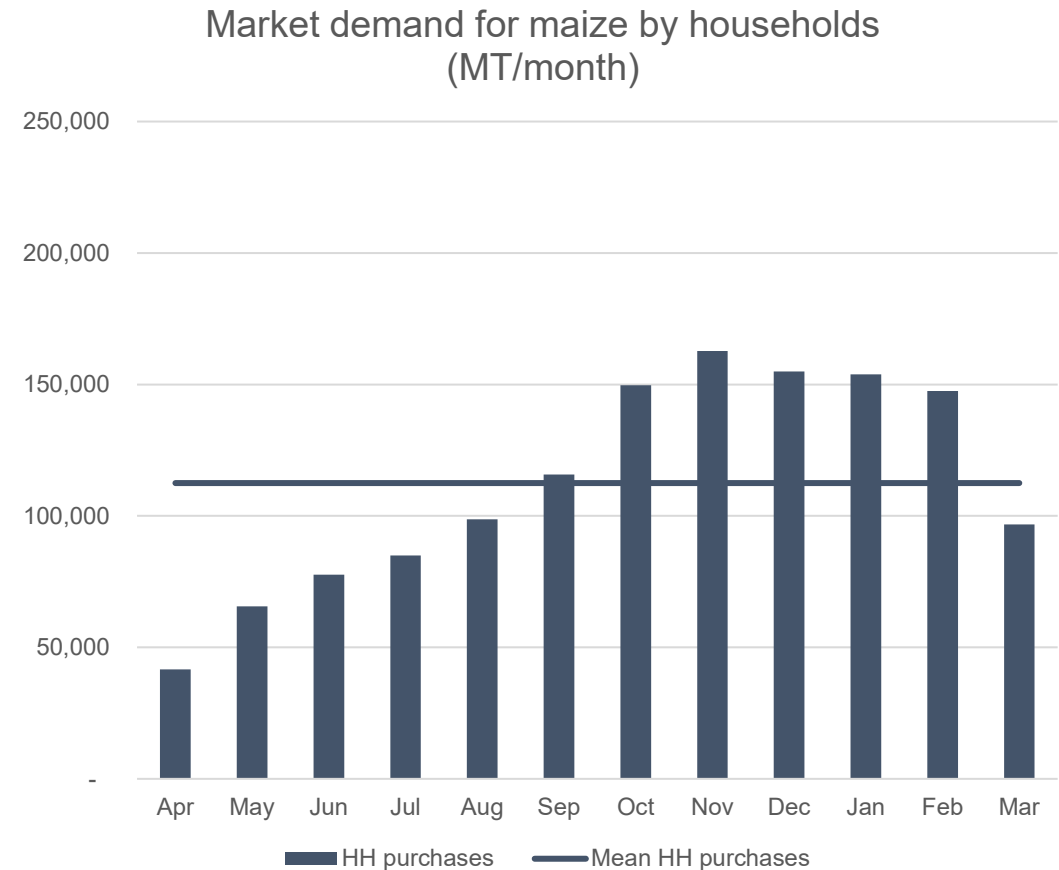
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SGR storage capacity

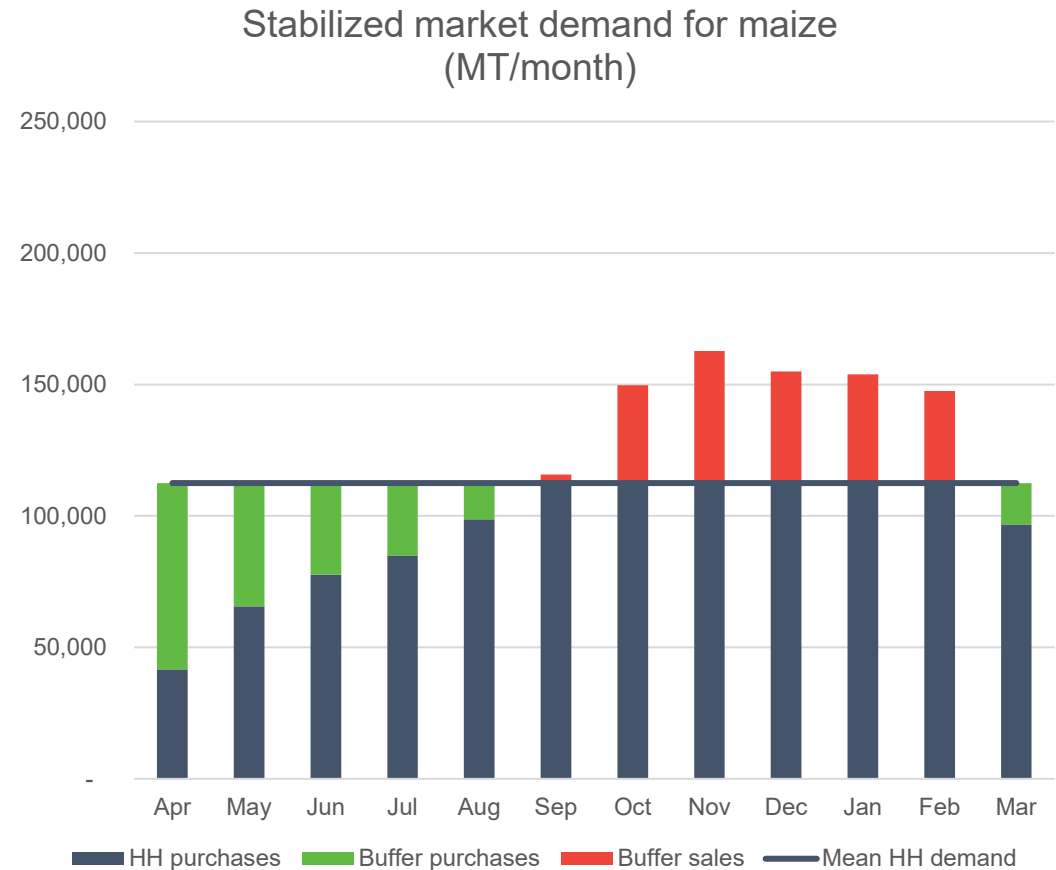
- HH market purchases are seasonal
- How much storage capacity would it take to equalize them?
- With 2019/20 consumption pattern and 2026 population:



SGR storage capacity

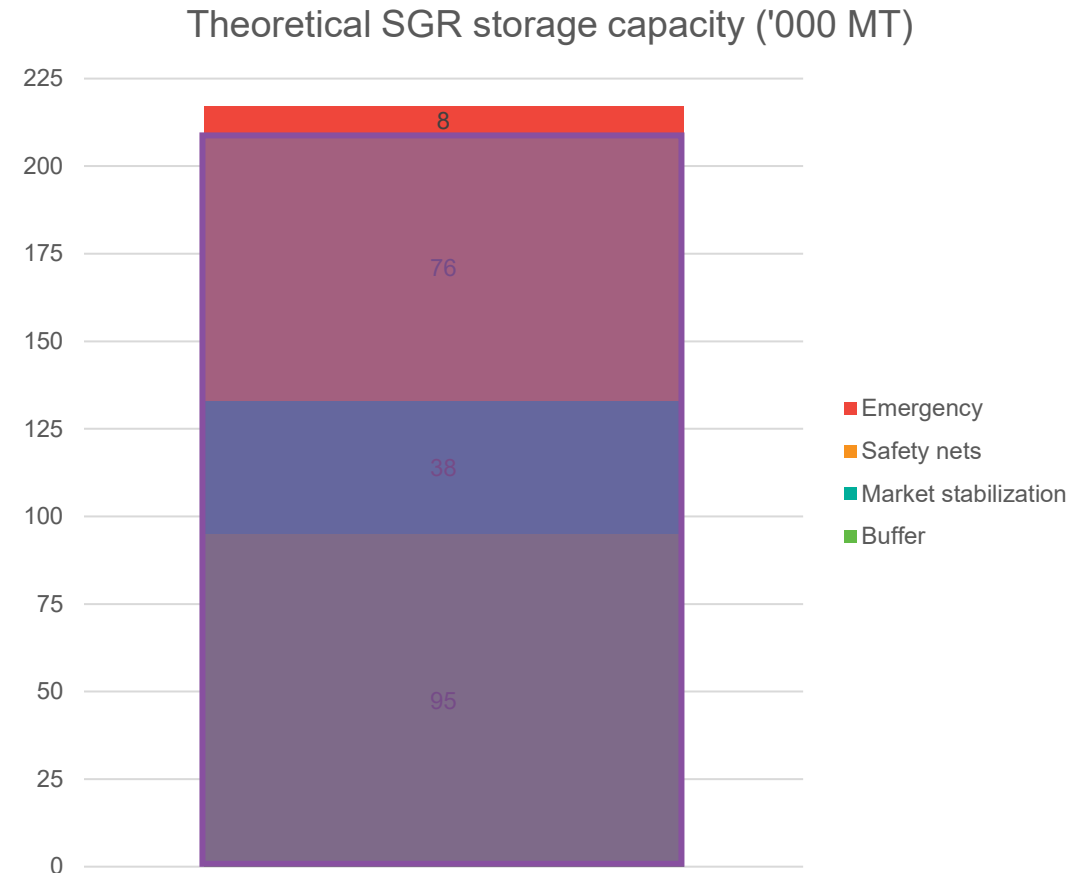
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buffer purchases = buffer sales = 209,500 MT



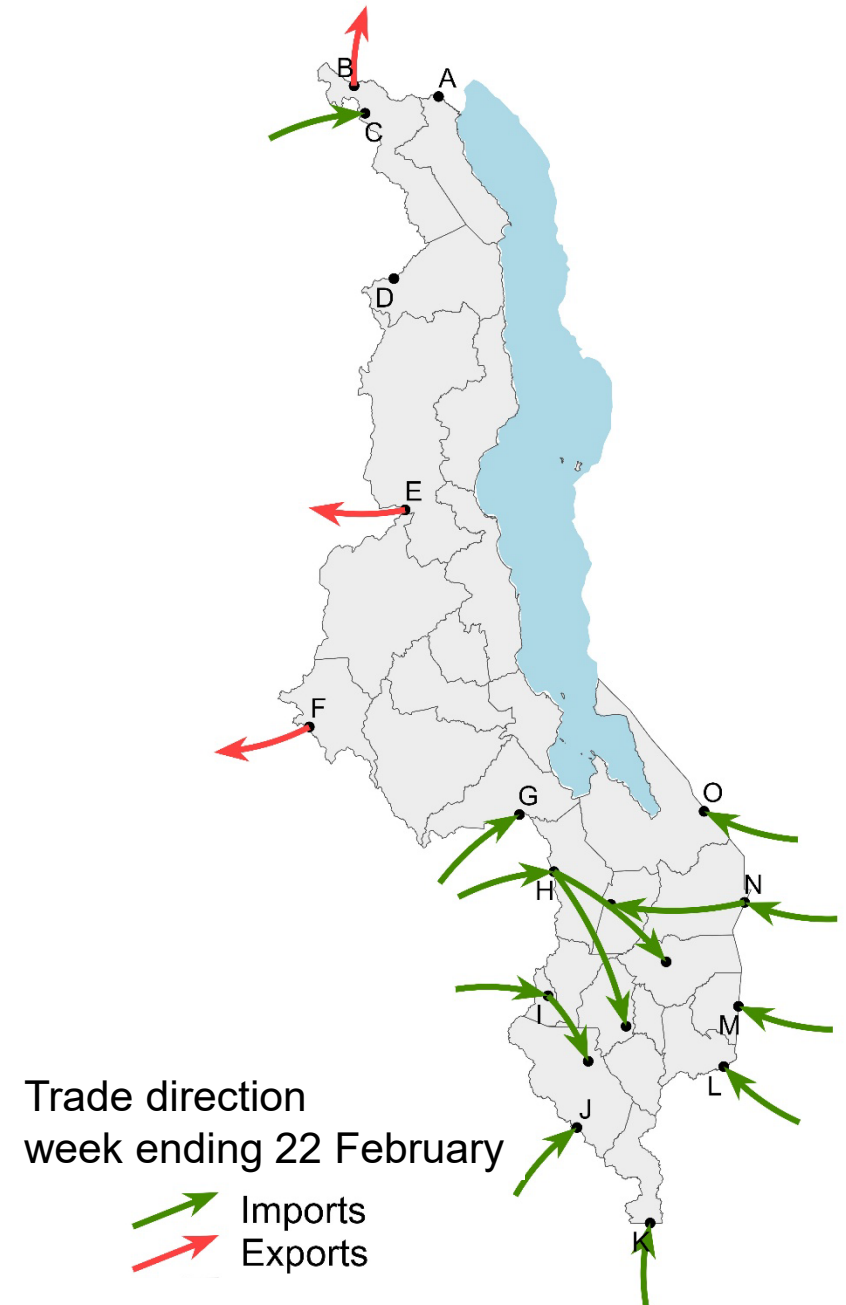
SGR storage capacity

- HH market purchases are seasonal
- How much storage capacity would it take to equalize them?
- With 2019/20 consumption pattern and 2026 population:
buffer purchases = buffer sales =
209,500 MT
- Physically sufficient to stabilize domestic supply and demand, but
 - intended for different purposes
 - usually not maintained
 - insufficient to stabilize supply and demand in neighboring countries



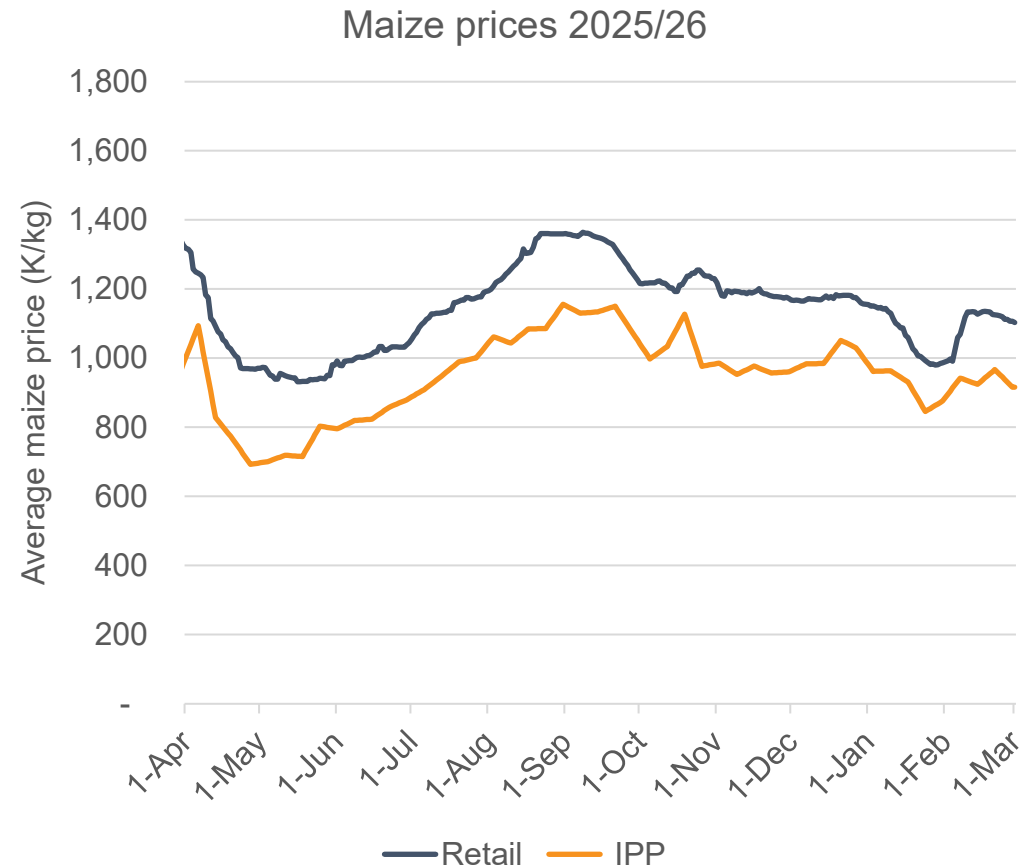
Cross-border trade

- Porous borders
 - Informal trade
- Trading even during bans at low cost (\approx K33/kg)
- Hard to stop



Cross-border trade

- Porous borders
 - Informal trade
- Trading even during bans at low cost (\approx K33/kg)
- Hard to stop
- Provides an effective price band



What can the SGR achieve?

- Trade already provides an effective price band, albeit a wide one.
- It is not obvious how buffer stock operations can narrow it panterritorially.
- Setting separate price bands for each region might make it possible for reduce seasonal price volatility within each region, but at the cost:
 - Farmgate prices to be lowest in the Northern Region
 - Consumer prices highest in the Southern Region
- Options for SGR to stabilize prices are limited.
- Important to keep reserves for humanitarian functions.

Other options?

- Investment into transport infrastructure to reduce regional price differences
- Policy environment that:
 - is predictable so that it encourages private investment in production and storage
 - ensures market competition
 - is conducive to trade

Thank you!



Foreign, Commonwealth
& Development Office