



AAMP Briefing Packet 1.3.b. Measuring Price Movements

- (i) Nominal prices
- (ii) Inflation and real prices
- (iii) Price trends
- (iv) Price seasonality

Have maize prices gone up in 2008?

In Kenya?

In Malawi?

In South Africa?

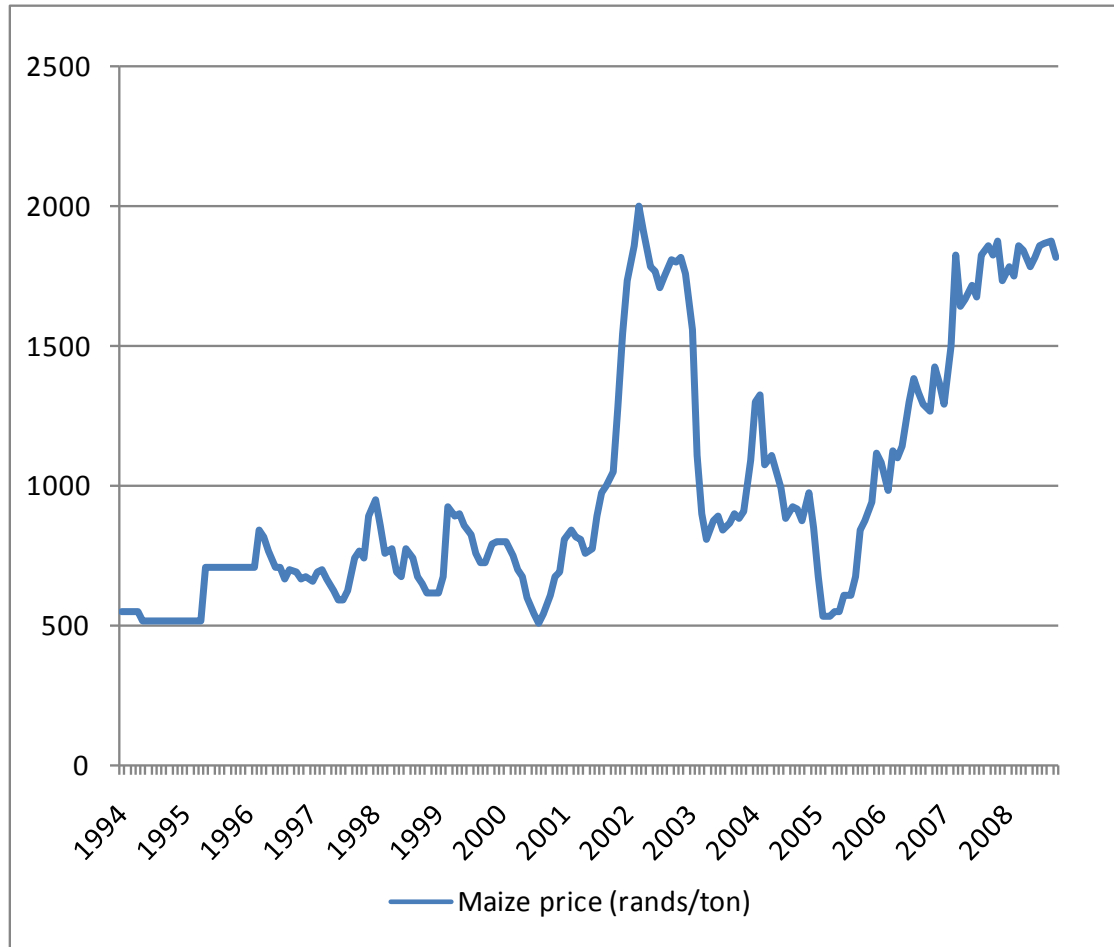
In Zambia?

In Mozambique?

(i) Nominal prices

- P_t = Nominal price in month t : depends on
 - Inflation (I)
 - Trends (T)
 - Seasonality (S)
 - Random Shocks (E)

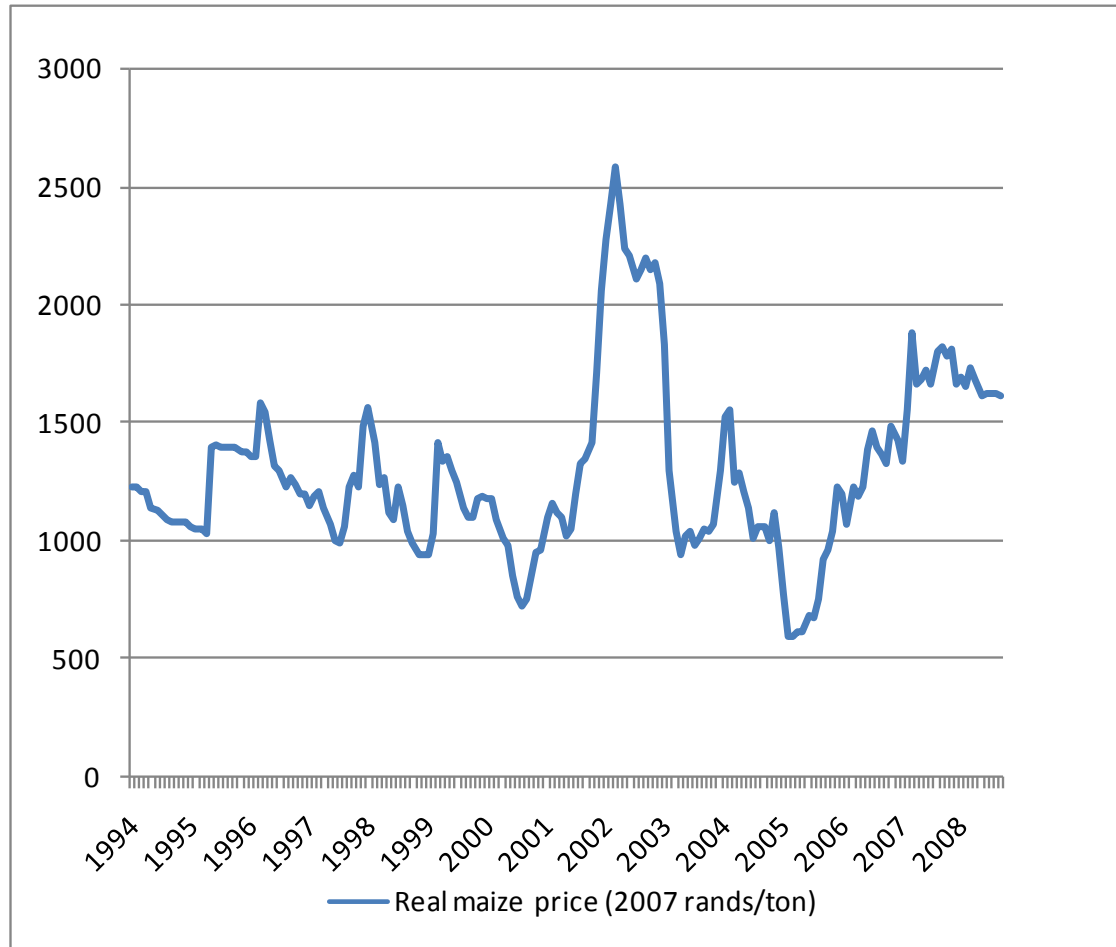
Nominal maize prices, South Africa (rands/ton)



(ii) Inflation and real prices

- Inflation measures (CPI, GDP deflator)
- Real price = $P_t/\text{deflator}$

Real maize prices, South Africa 2007 rands/ton



(iii) Price trends

- $P_t = a + b \text{ TIME}$
- **$\ln P_t = a + b \text{ TIME}$**
- $\ln P_T = a + b \text{ TIME} + c \text{ TIME}^2$

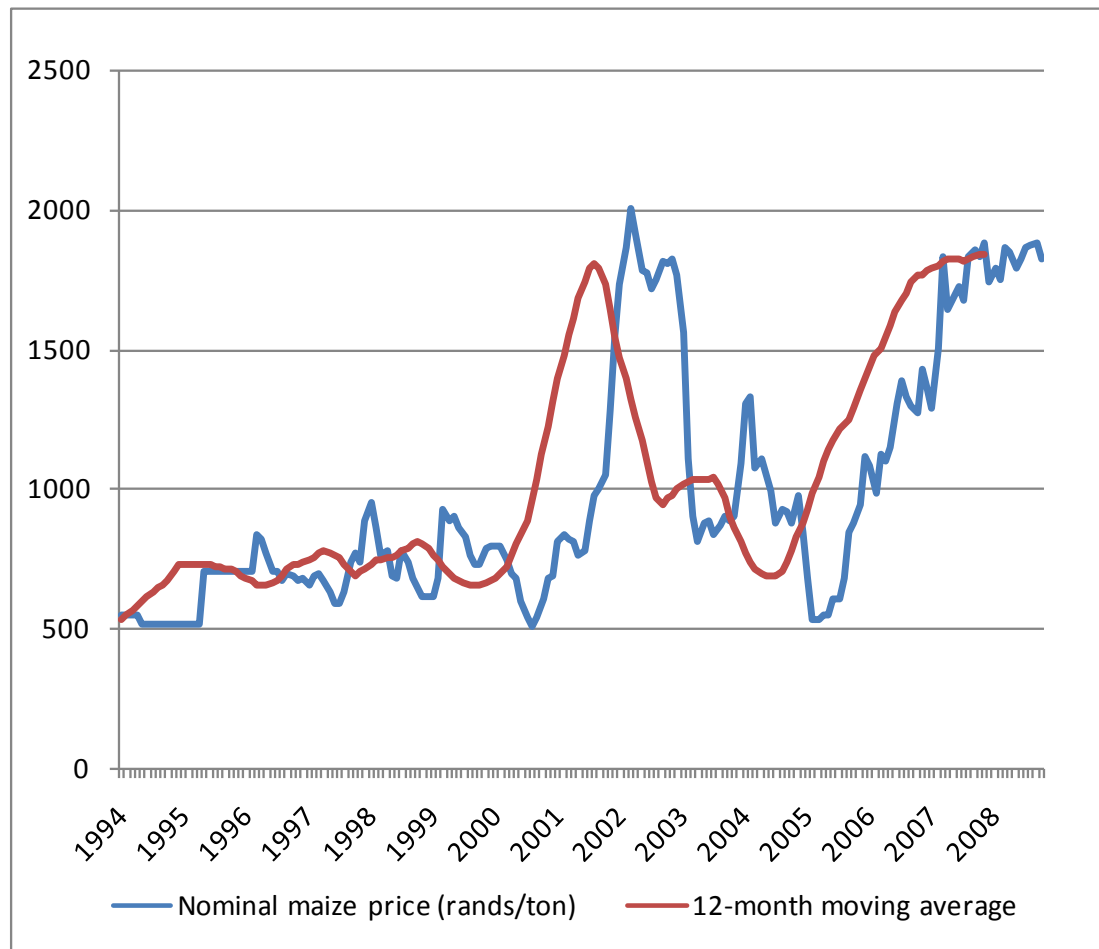
Maize price trends in South Africa

- Nominal maize price 0.25% per year
- Real maize price 0.04% per year
- Inflation 0.21% per year

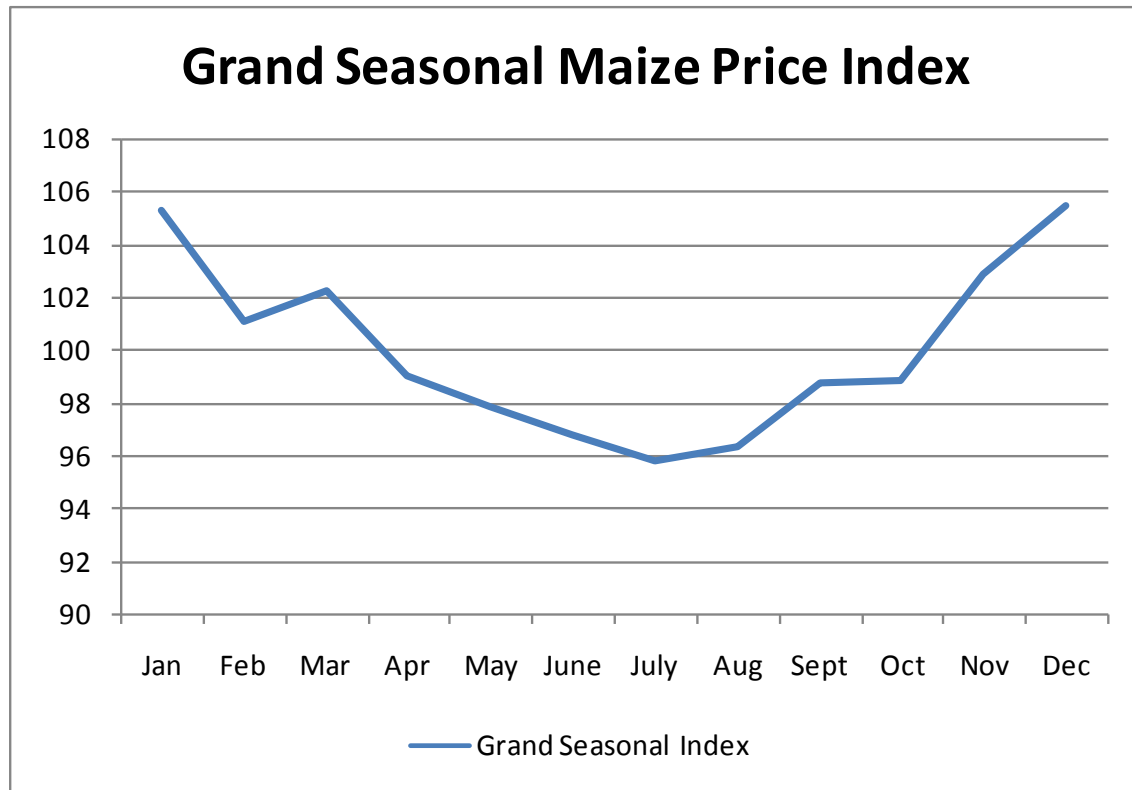
(iv) Price seasonality

- Moving average price
- Seasonal index = P_t/MA
- Grand seasonal index = average SI, by month

Twelve Month Moving Average South African nominal maize price



South Africa, Grand Seasonal Index



Exercise: Divide into four Groups

- Kenya
- Malawi
- Mozambique
- Zambia

Exercise: Compute and Graph

- Nominal maize price
- Real maize price (I)
- Trend in real maize price (T)
- Price seasonality (S, GSI)

Discussion question: Have maize prices risen above normal levels in 2008?