Analyzing the interplay of macro and food policies

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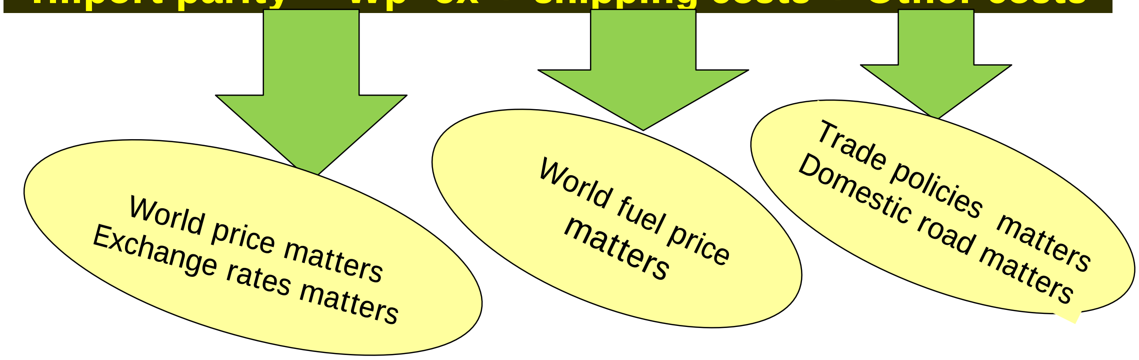
Outline

- Basic concepts
- Possible links between macro and food policy
- Application
  - Exercises
- Group discussion

Basic concepts (1)

- **Import parity:** Cost of importing a ton of maize to domestic market (for deficit country)

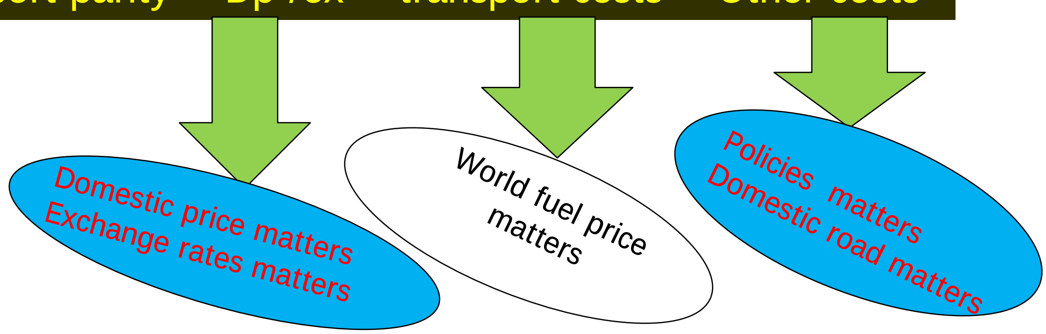
Import parity = Wp*ex + shipping costs + Other costs



Basic concepts (2)

- **Export parity:** Minimum domestic price at which a commodity is exportable

Export parity = Dp /ex + transport costs + Other costs



Basic concepts (3)

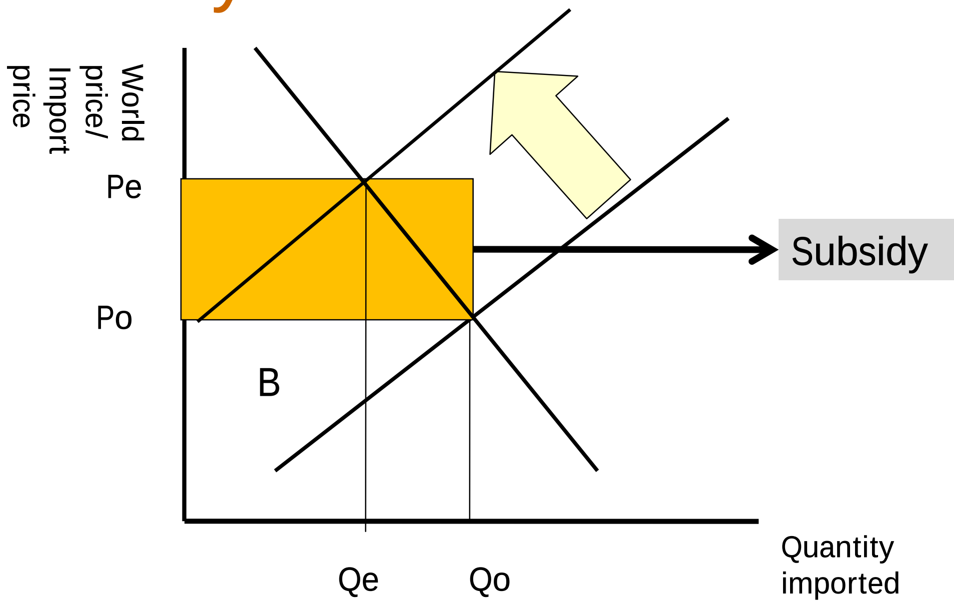
- **How do export and import parity affect food trade?**
  - If domestic price is higher than import parity, there will be import, which in turn will drive domestic prices down to import parity
  - If domestic prices are lower than export parity, there will be export, which will drive the price up to the export parity.
  - If domestic price remain between import and export parity, commodity are non-tradable (i.e., neither exportable nor importable)

Some more concepts

- Exchange rates and trade
  - When currency is undervalued → Export becomes cheaper
  - When currency is overvalued → Import becomes cheaper
- Trade balance (Value of exports – value of import)
- Foreign exchange rationing (foreign exchange is not easily available)

$$\text{Elasticity} = \frac{\%\,\Delta \text{ in Qty}}{\%\,\Delta \text{ in Price}}$$

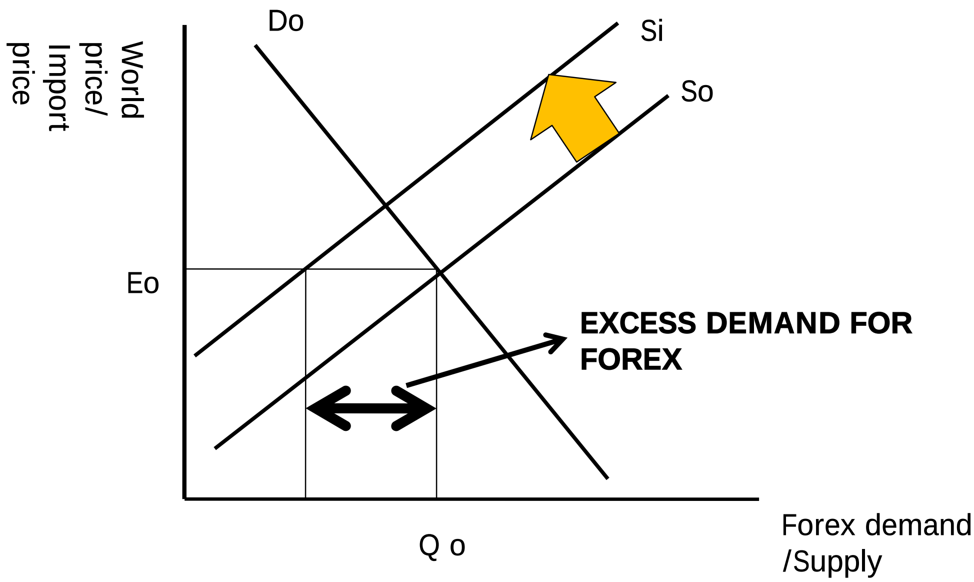
Subsidy and trade deficit



What does the figure tell us?

- Keeping domestic price low despite rise in world price → a subsidy = the orange area
- What would have been the price is domestic prices were allowed to adjust?
  - New equilibrium price = Pe; new equilibrium quantity = Qe
  - Subsidy bills = 0

Subsidy, trade deficit, and exchange rate



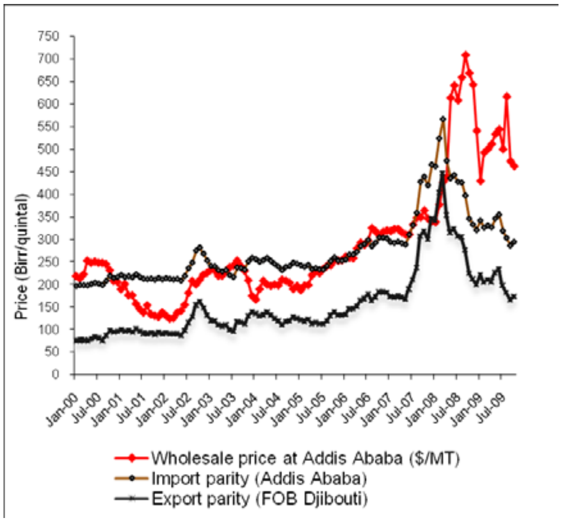
What does the figure tell us?

- Holding domestic prices low → decline forex supply (previous figure)
- Holding exchange rates fixed → excess demand for foreign exchange → black market for forex → export declines → further decline in forex→ further leftward shift in supply

IT IS A VICIOUS CYCLE!!!!

An example from Ethiopia

- In 2008-09, domestic price of wheat in Ethiopia went $200 above the import parity
- This defies the very logic of international trade
- It happened mainly because of macro policy
- What??????????????



Discussions about Ethiopia example

- Why do you think domestic price in Ethiopia went above import parity and stayed above for so long?
- There are a number of reasons why this had happened. I have answer but let's guess a few—together
  - Ethiopia kept domestic price of petroleum unchanged when world price sky-rocketed → Shortage in forex → rationing → even though domestic price was high, there was no import because importers couldn't obtain Forex!!!

Discussions about Ethiopia example

- What impact did continued high domestic price have for consumers in Ethiopia?
- Ethiopia consumes about 300 thousand tons of wheat a month; domestic price was US$200 above import parity for 12 months
  - Ethiopia kept domestic price of petroleum unchanged when world price sky-rocketed → Shortage in forex → rationing → even though domestic price was high, there was no import because importers couldn't obtain Forex!!!

Objectives of the exercises

- Understanding the trade balance
- Measuring subsidy
- Understanding how subsidy affect foreign exchange → food prices