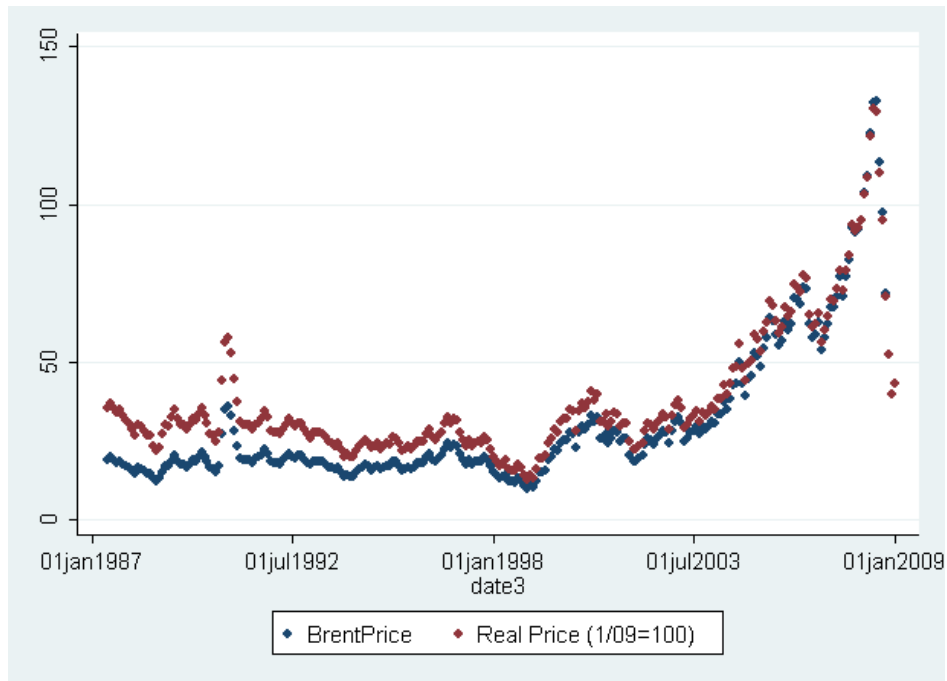


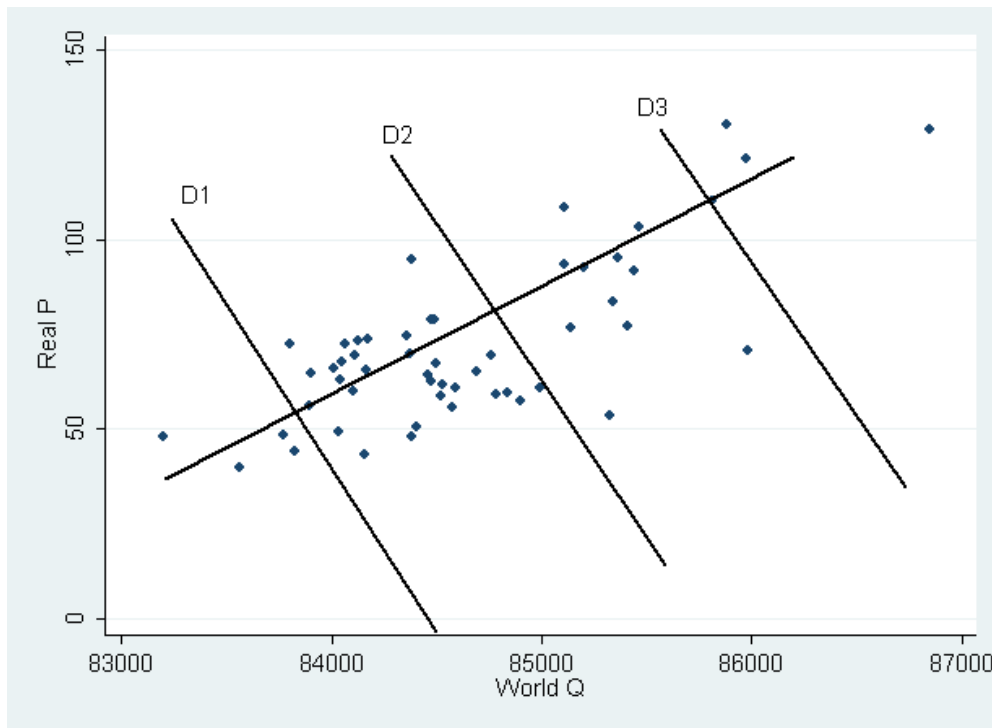
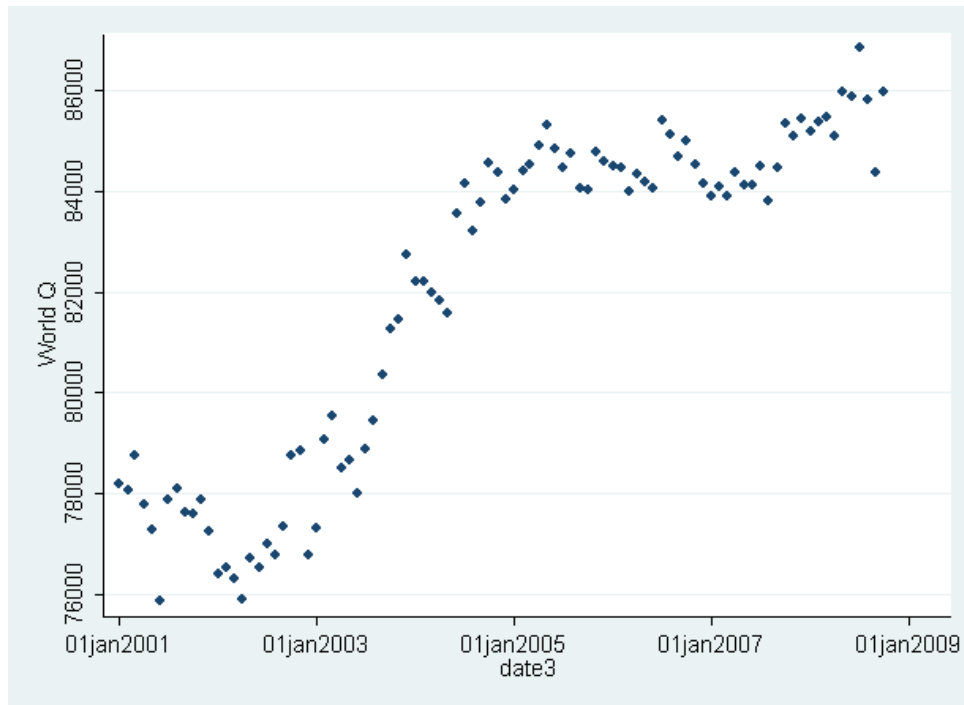
The US - Large Nation in the World Petroleum Market?

1. The World Market

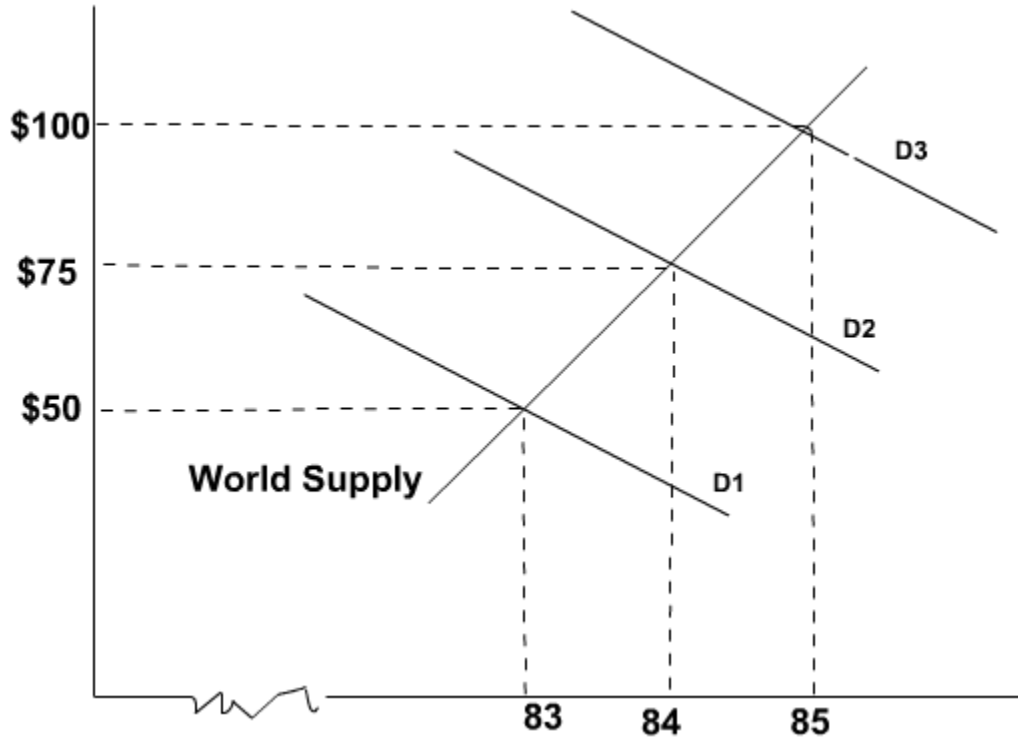
- Price: The world price of oil briefly spiked above \$100 per barrel, then fell back to the \$50 range, and currently hovers around \$80. The volatility in the oil price traced out point on the supply and demand functions for the US and the world.



- World Production: The spike in oil prices generated some response in world production. The short run world supply curve is inelastic, but the supply elasticity is not zero.

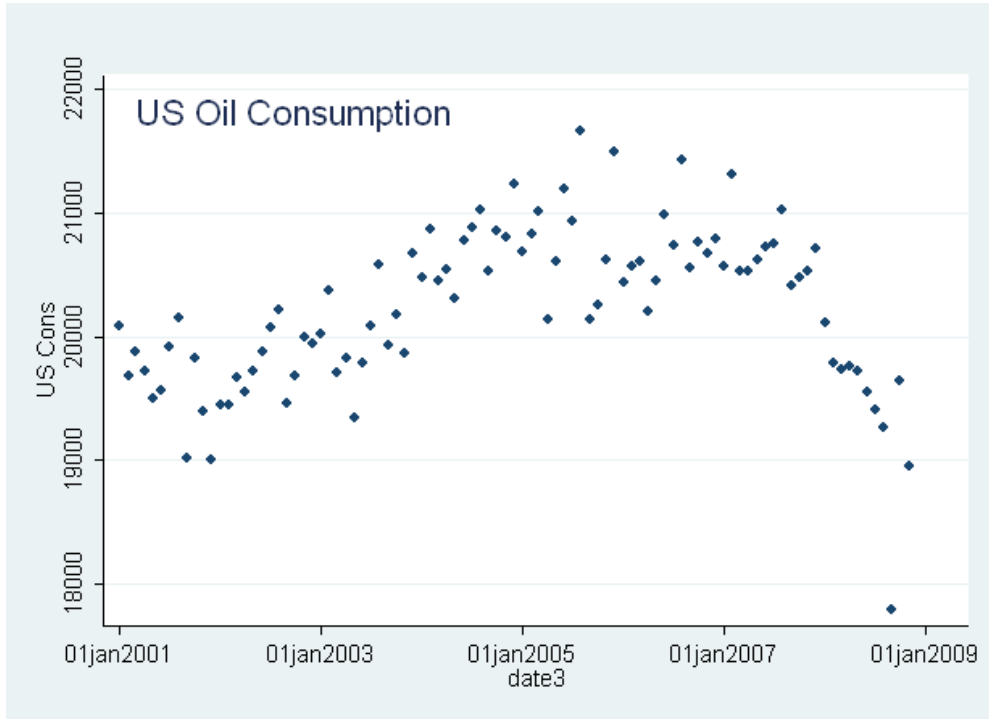


- A “back of the envelope model of the world oil market.

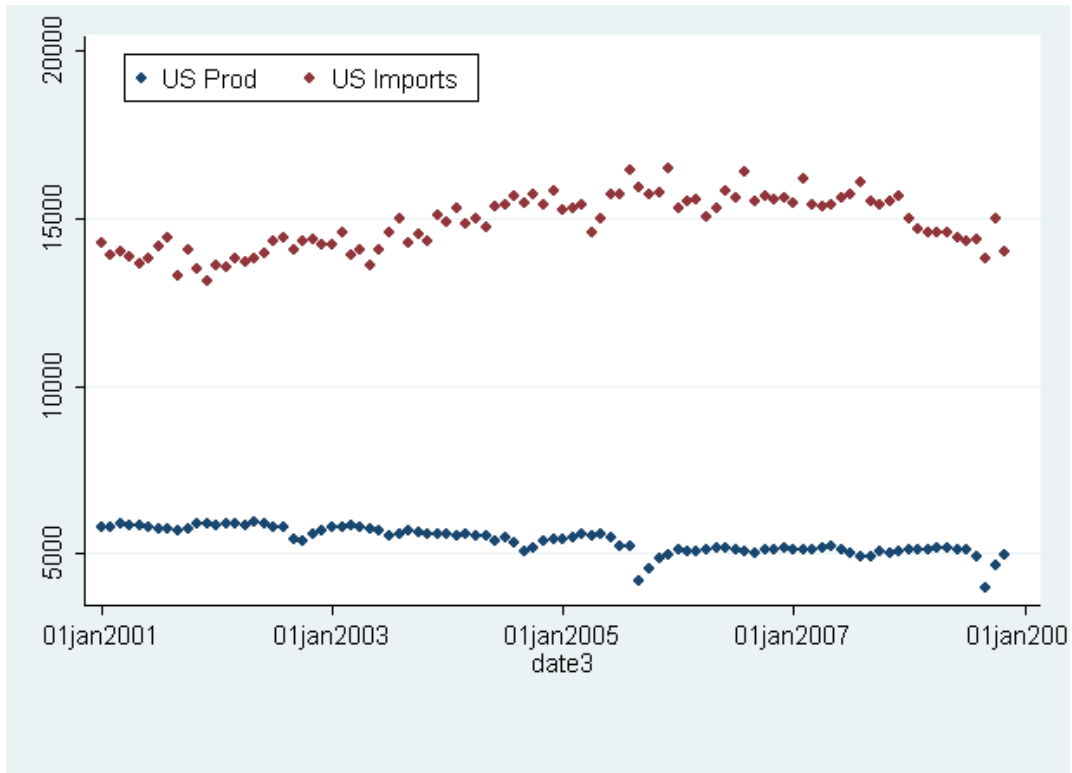


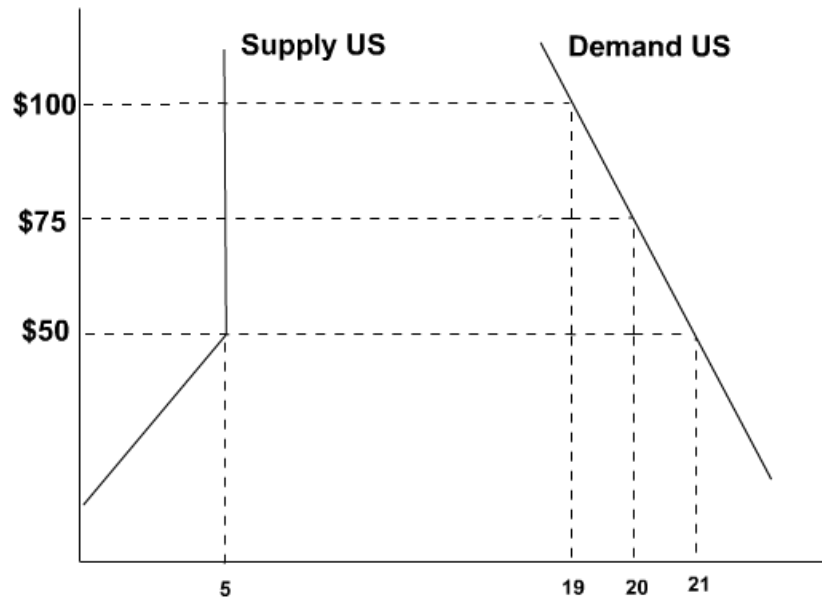
2. The US Market

- Consumption

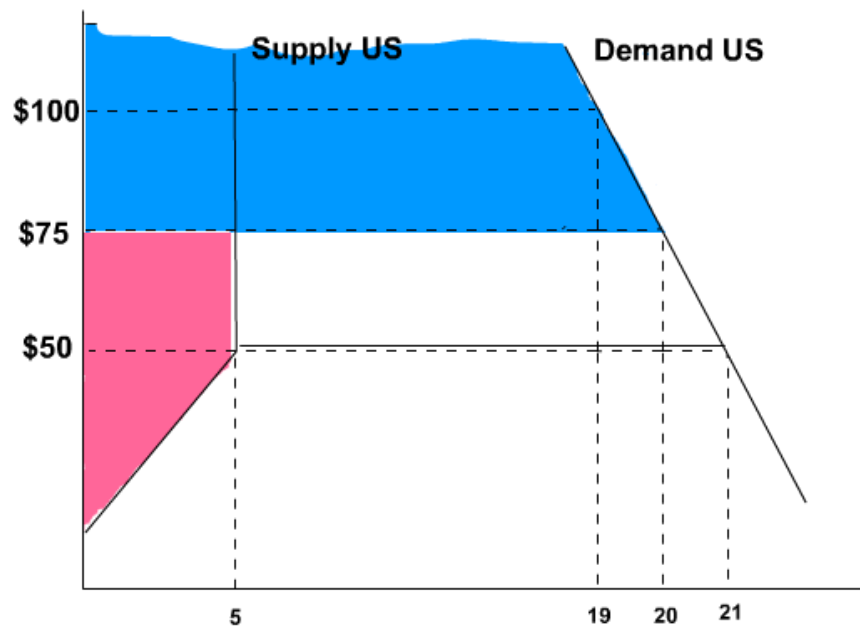


- US Supply: Imports and US production. US production has an elasticity close to zero. The short term drops represent hurricanes disrupting short term production. Imports fluctuate to fill the difference between US demand and US production.

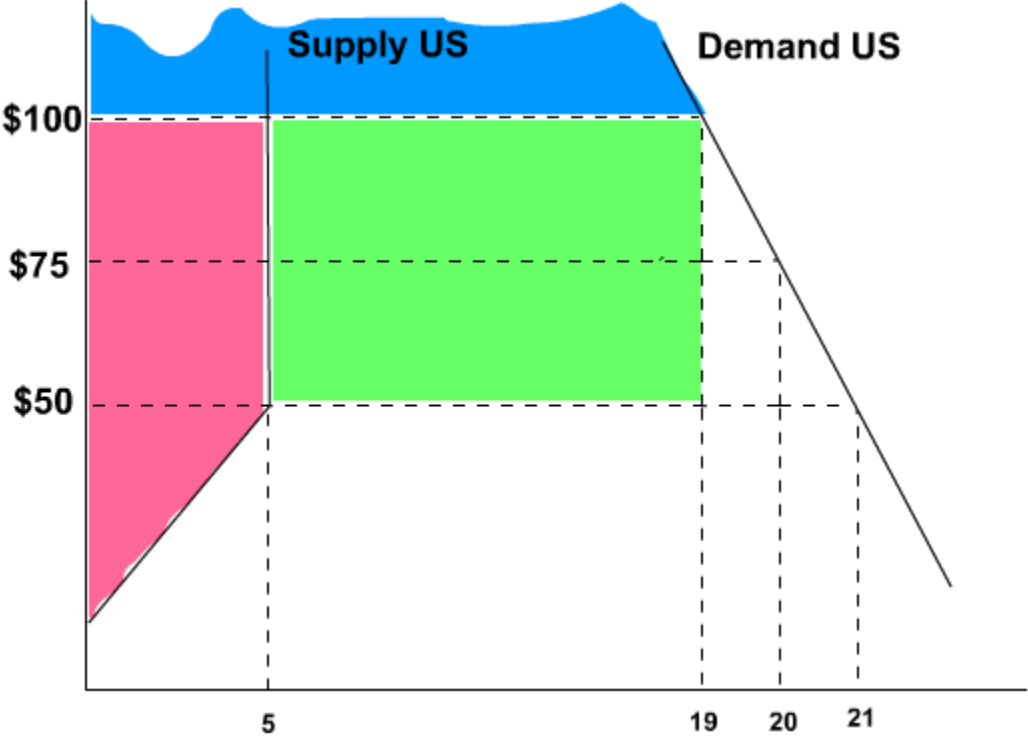




The US Market , No Tariff: The world price is \$75. The US produces 5, US demand is 20, and US imports are 15



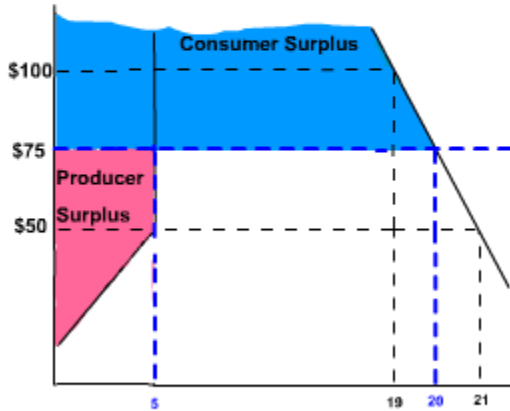
The US Market \$50 Import Tariff: Assume that the world price fall from \$75 (no tariff case) to \$50 because World demand decreases by 1 (the fall in US imports). The US price will be \$100 (\$50 world price plus the \$50 US import tariff). US supply will still be 5 (zero supply elasticity for US production), US demand will be 19 and US imports will be 14.



No Tariff

$P_w = P_{us} = \$75$

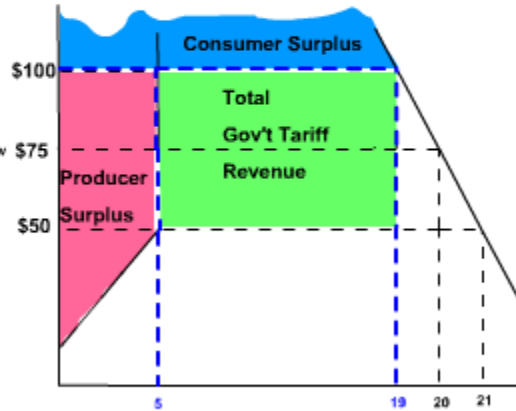
$Q_s = 5; Q_d = 20; Q_i = 15$



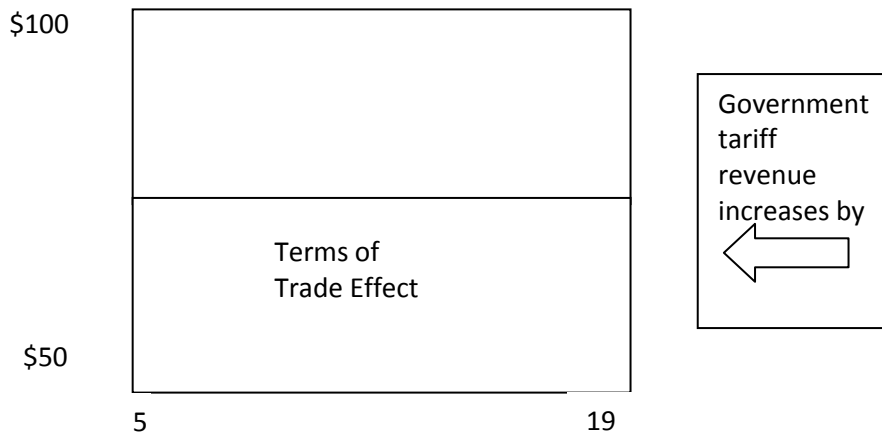
\$50 Tariff

$P_w = \$50; P_{us} = \100

$Q_s = 5; Q_d = 19; Q_i = 14$



In this example the tariff causes US consumer surplus to decrease by the trapezoid shown below. Government tariff revenue increases by the rectangle (\$50 x 14)



Practice Multiple Choice:

The US is a large country in the world oil market. The table below shows quantities of oil (in millions of barrels per day) for different prices. Currently the price of oil is \$100 per barrel. If the US places a \$50 per barrel import tariff on oil, the world price will decrease to \$80, the US price would be \$130 and the US would import 12 rather than 14 million barrels per day (mbd).

Price	Q supplied US	Q demanded US	Q Imported US
\$100	6 mbd	20 mbd	14 mbd
\$130	7 mbd	19 mbd	12 mbd

- The terms of trade effect would be about \$240 million per day
- The protection (production) effect would be \$0 million per day
- The consumption effect would be about \$1 million per day
- US producer surplus would stay the same

