

Issues in Thailand's agriculture

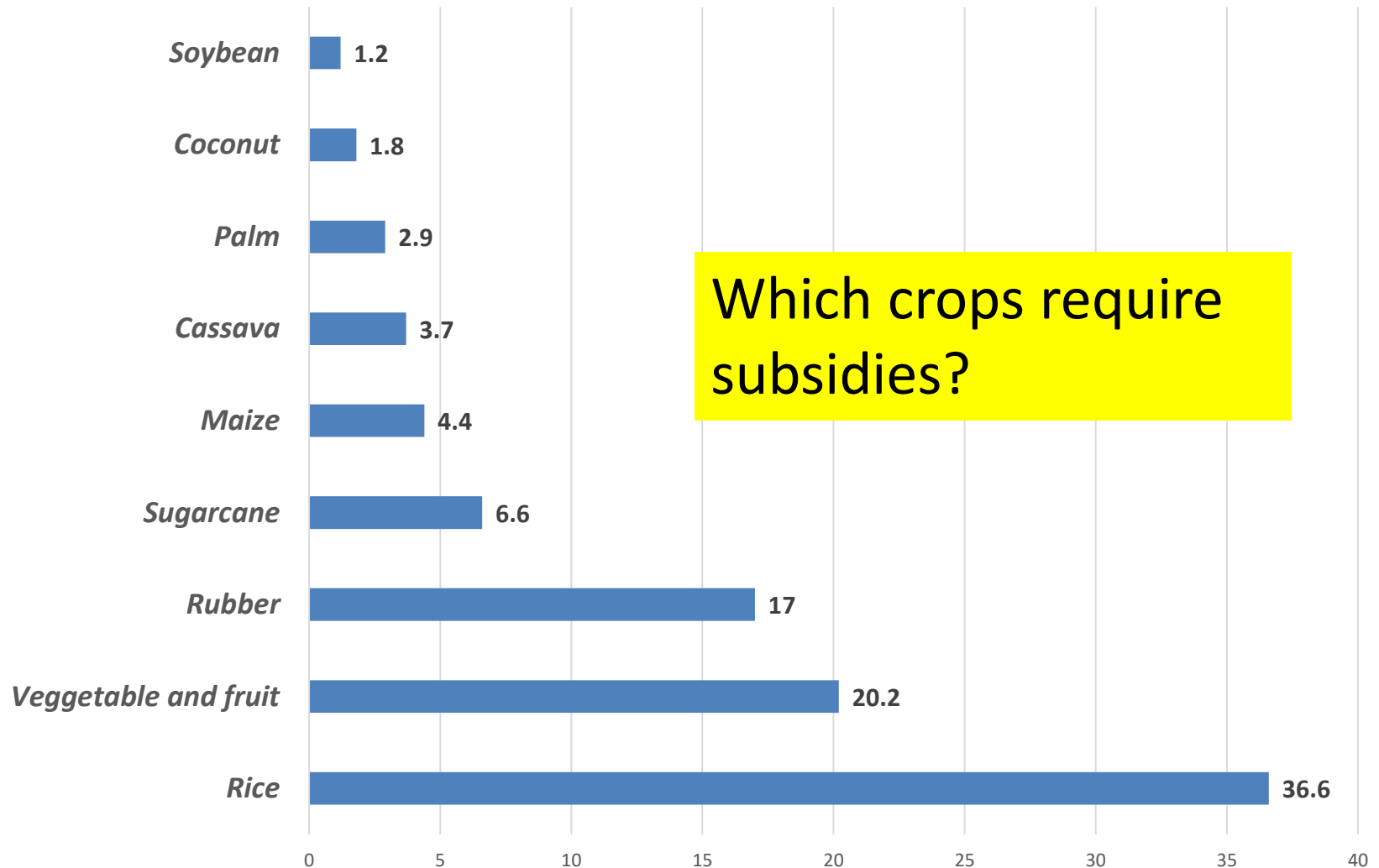
Lecture 12(A)
Bhanupong

Course Syllabus

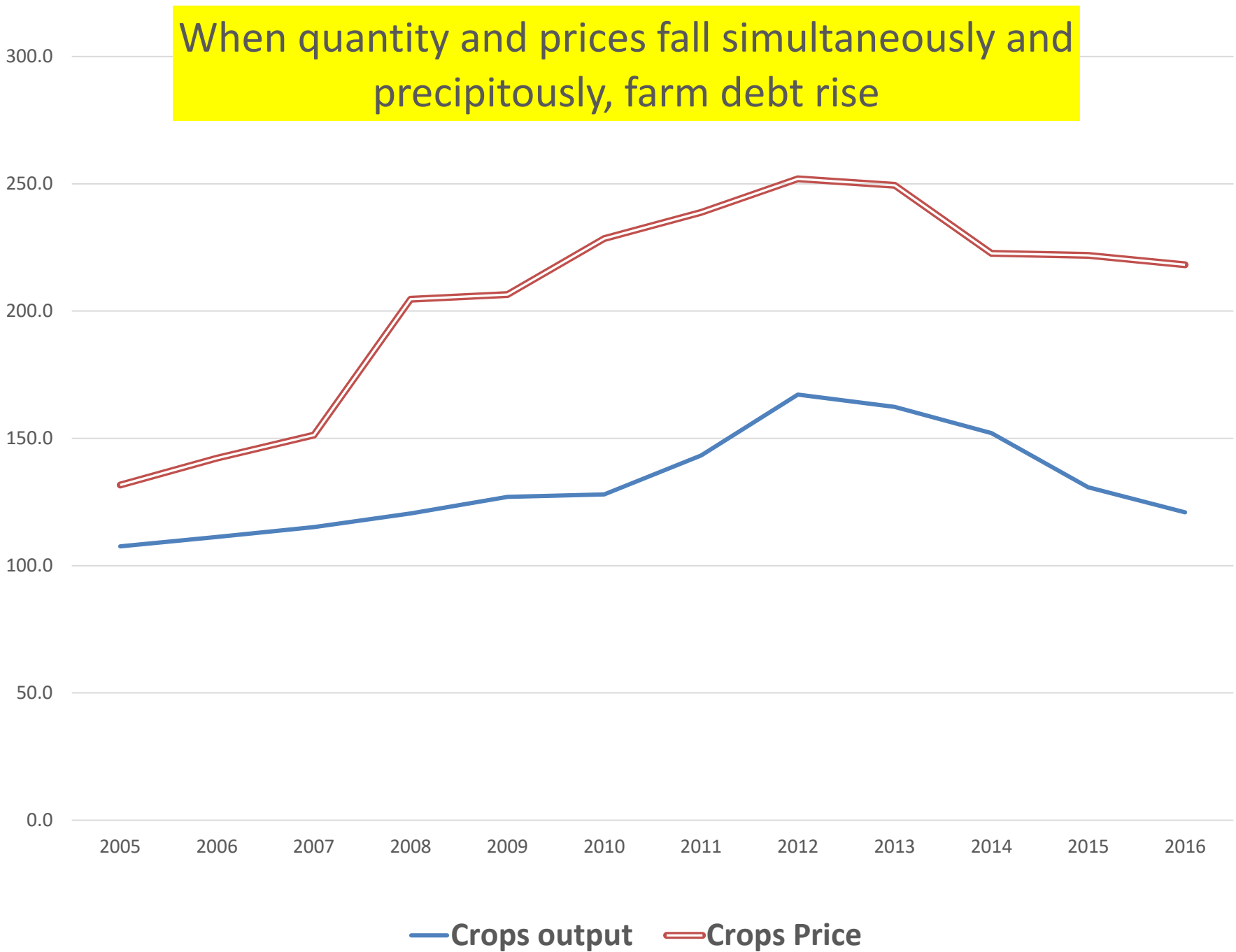
Lecture 12

- Farm households' debt
- Declining agricultural prices
- The rice-mortgage scheme
- Populism policy: agriculture subsidies
- A case study of cassava exports

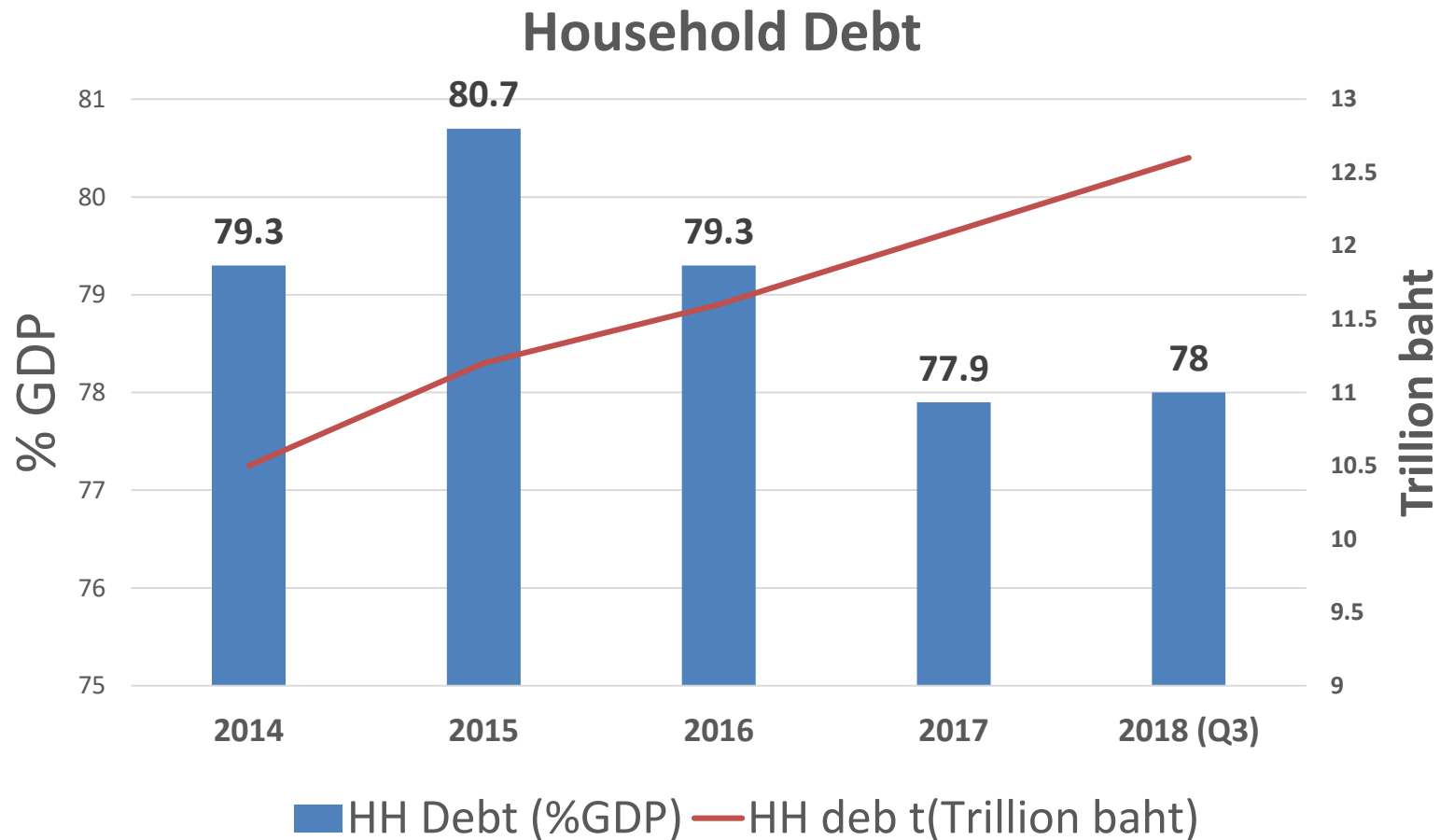
Main Crops in Agriculture
Share of weight in agricultural production index
Source: Bank of Thailand



When quantity and prices fall simultaneously and precipitously, farm debt rise



Rising household debt level



Source: Bank of Thailand

Farm household debt

- Thai farmers' debt remains high since they have to borrow money to buy staple goods since the drought in late 2013.
- Loan for cultivation and consumption are needed while waiting for income generated from a new growing season (Q2 and Q3).
- Default risk is high because of high debt-service coverage ratio.
- Rubber prices depend on China's growth, while rice prices are depressed due to high inventory.
- Household debt was 81% in 2015--11 trillion baht

Rice farmers begin their *main* crop in *June* harvest in late November and December



Low paddy prices and servicing high debt affect farmers' consumption and borrowing.

They need to borrow while waiting for harvesting in late November and December.

The second crop begins in the dry season, requiring ample supply of water from irrigated canals.

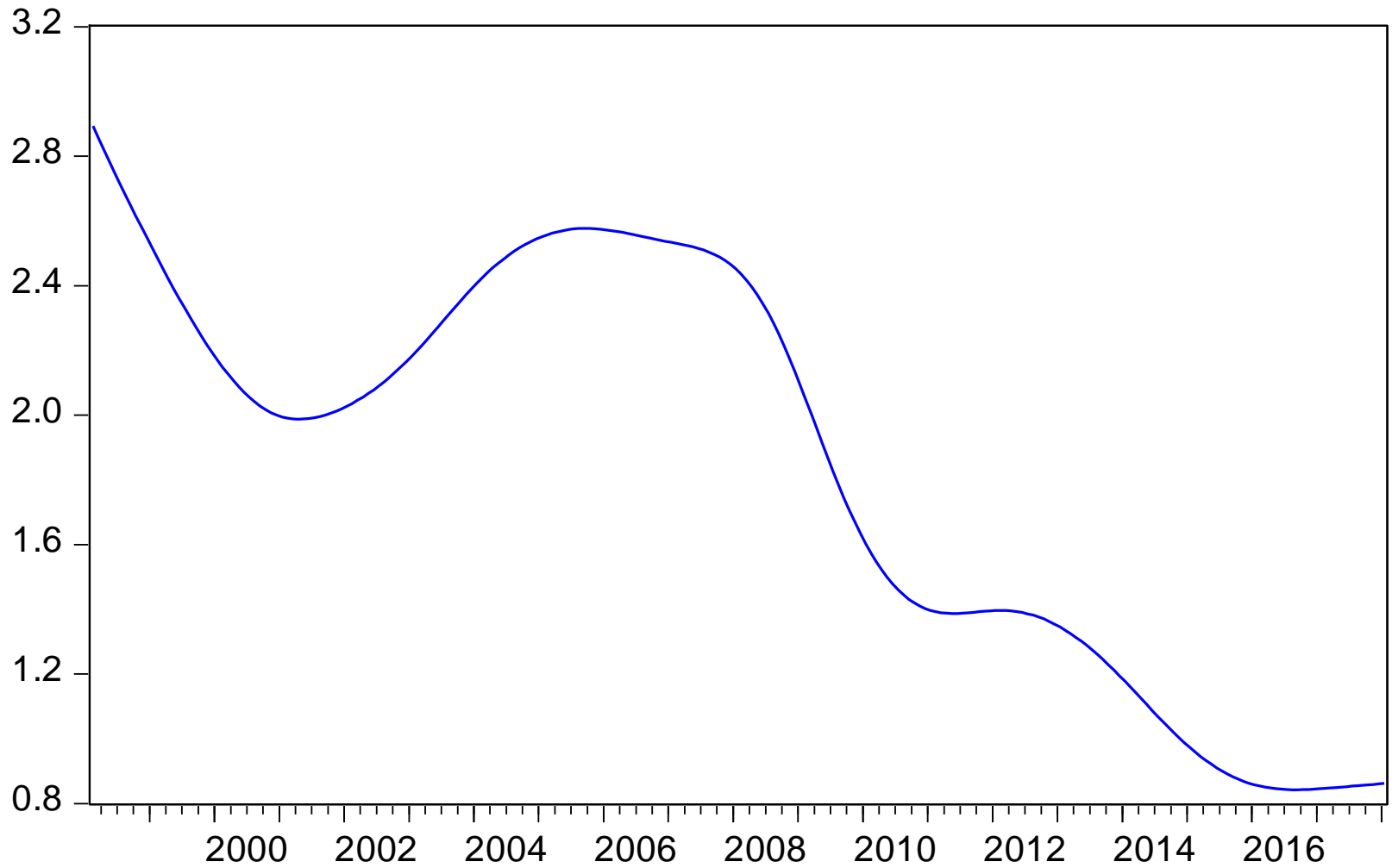
Surin Reservoir

Record driest in 50 years

May 2019



TERMS OF TRADE (Food vs Fuel)



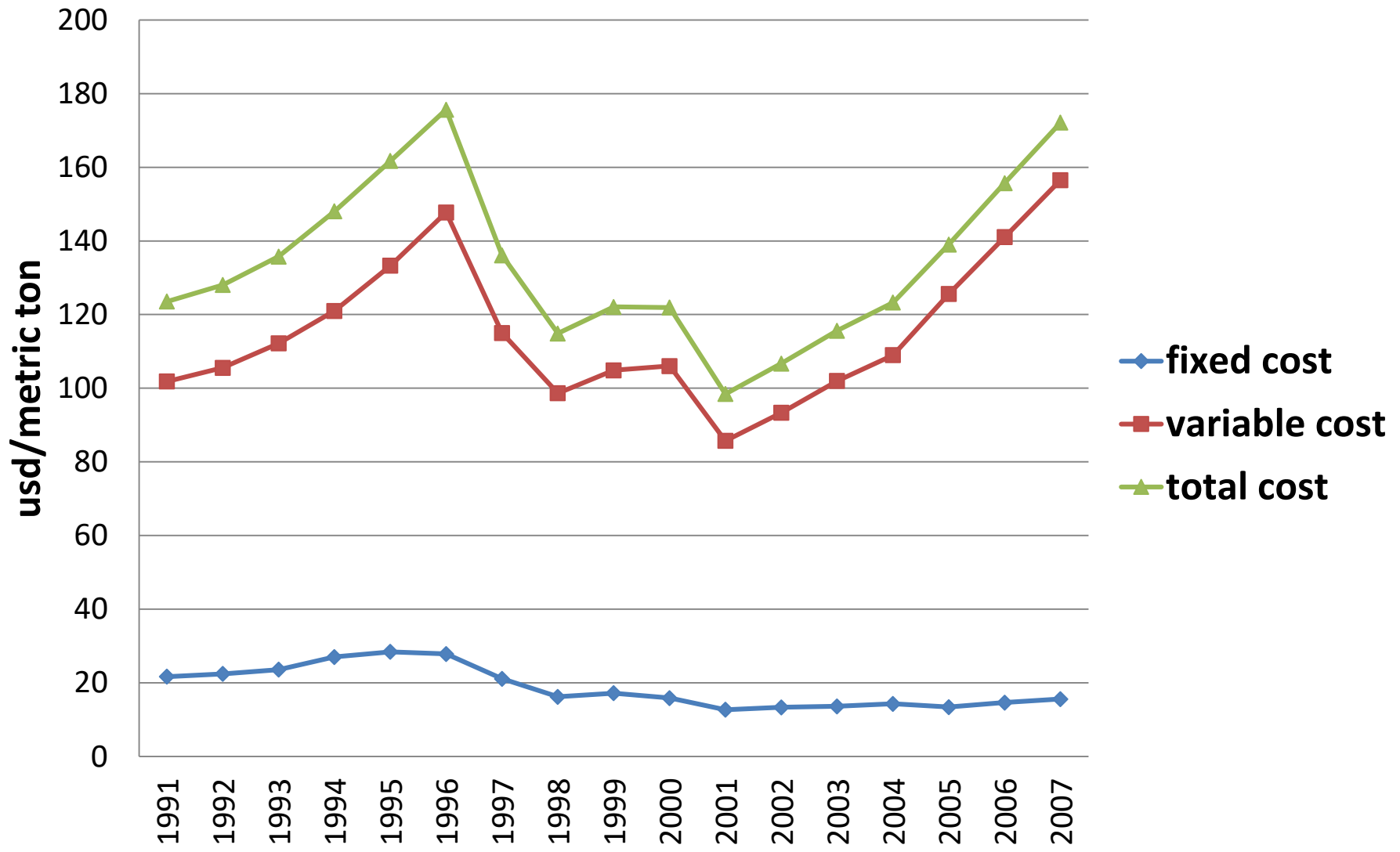
Since we cannot control farm prices, we must control production cost

- Total cost of farm products is dictated by variable costs.
- What are fixed and variable cost in rice production?

Transplanting rice in Chaiyaphum



Cost of paddy production in Thailand



Fertilizer application



Pesticide spraying



In this 2012 file photo farmers spray pesticide over a paddy field in Ayutthaya province, Thailand. REUTERS/Sukree Sukplang

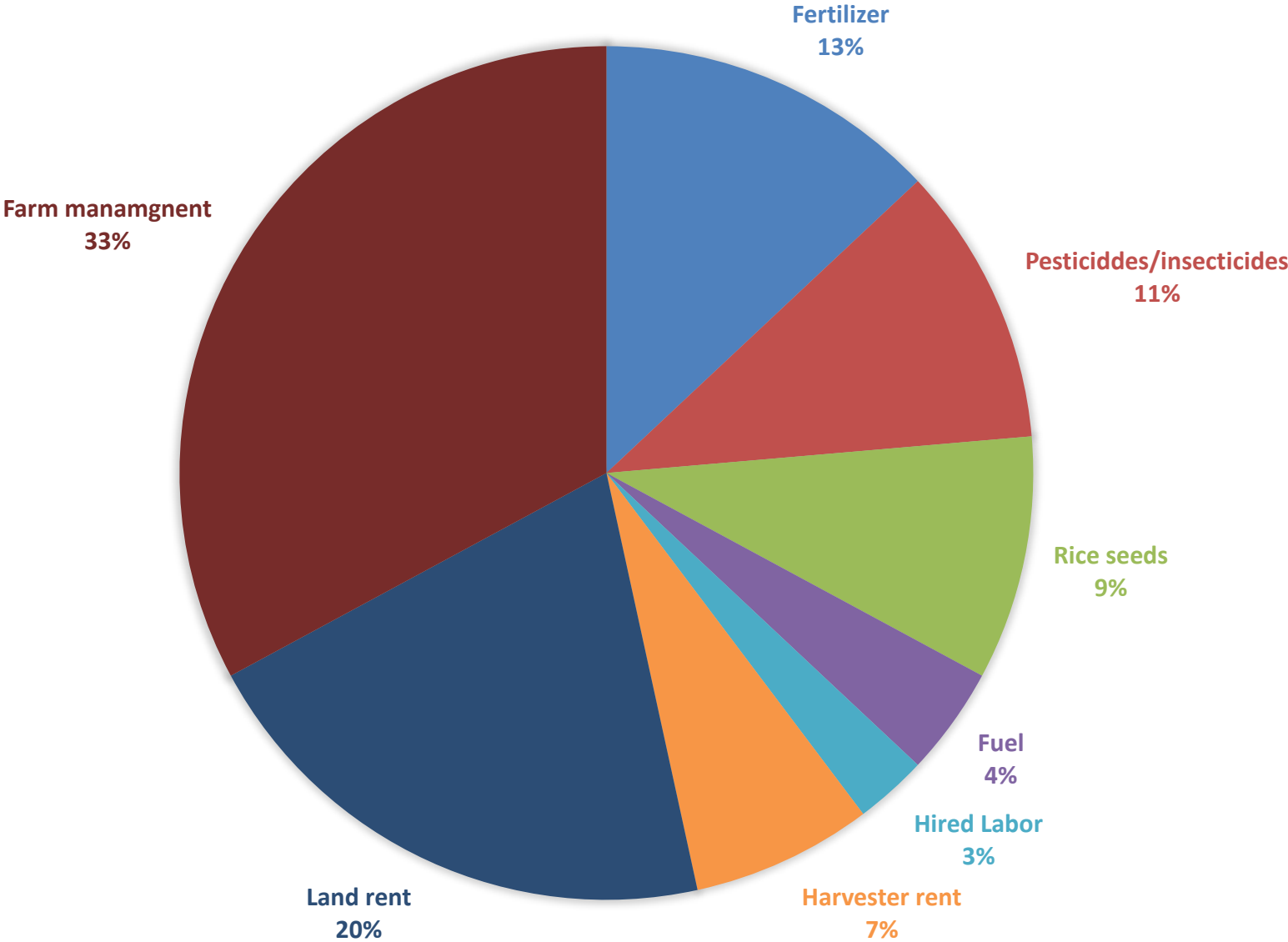
National Hazardous Committee

Paraquat and Chlorpyrifos

In a resolution on Nov 22, 2019, the committee decided to limit the use of this herbicide and agreed to postpone the ban on agrochemicals paraquat and chlorpyrifos to June 1 this year.

The herbicide can only be used on certain food crops such as rice, sugarcane, palm and fruit. It cannot be used on vegetables.

COST STRUCTURE OF RICE FARMING



Threaten by innovation

- Thailand's Jasmine rice exports will soon run into fierce competition in the United States, which has successfully grown and registered a new type of fragrant rice called "Jazzman".
- Louisiana State University's Agricultural Centre has come up with a new variety of aromatic rice, known as LA2125 , with a very similar fragrance, soft grain and quality as Thai jasmine rice.
- The LSU rice breeding took *12 years* to obtain a long-grain rice with good milling quality, high yield and the correct Jasmine aroma and flavor.

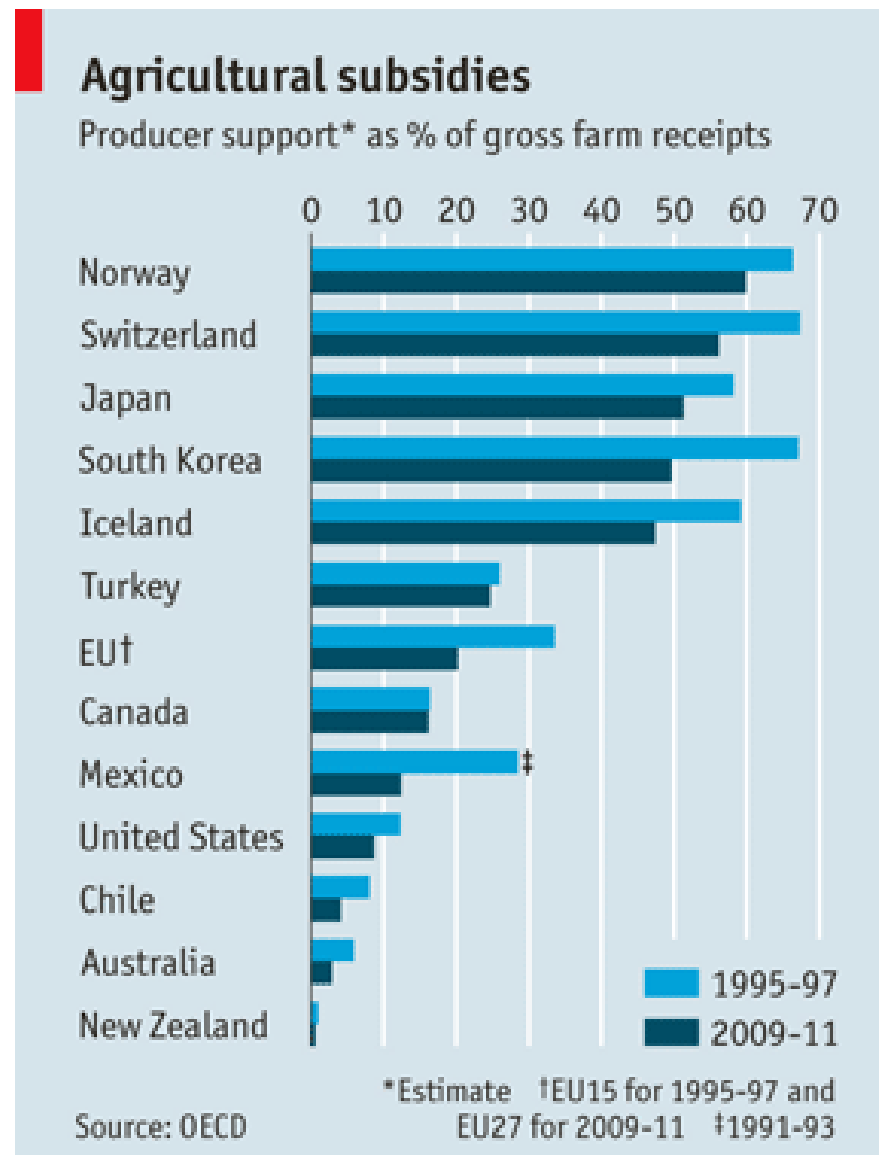
Jasmine vs. jazzman

- Consumers and Asian restaurants in the U.S. may shift to serving Jazzman rice as it tastes the same as Thailand's jasmine rice and it is cheaper.
- Another challenge is the yield differences:
- **1260** kilograms per rai of Jazzman rice, compared to **400** kilograms of Thai jasmine rice.
- What will be the impact on the elasticity of Thailand's export demand for Jasmine rice?

“Jasmine” rice from Vietnam and Cambodia

- ***Vietnam*** has already come up with rice that tastes similar to Jasmine.
- It is now on sales in supermarkets in London at **1,000 baht** for 20 kg bag, compared with **1,500 baht** Jasmine rice from Thailand.
- *Recall the learning curve effect*
- The recent dong devaluation has enabled Vietnam to offer 50% lower price than Thailand.
- In 2014, because of cheap jasmine rice from ***Cambodia***, the share of Thai jasmine rice in Hong Kong dropped from 90% to 45 %.

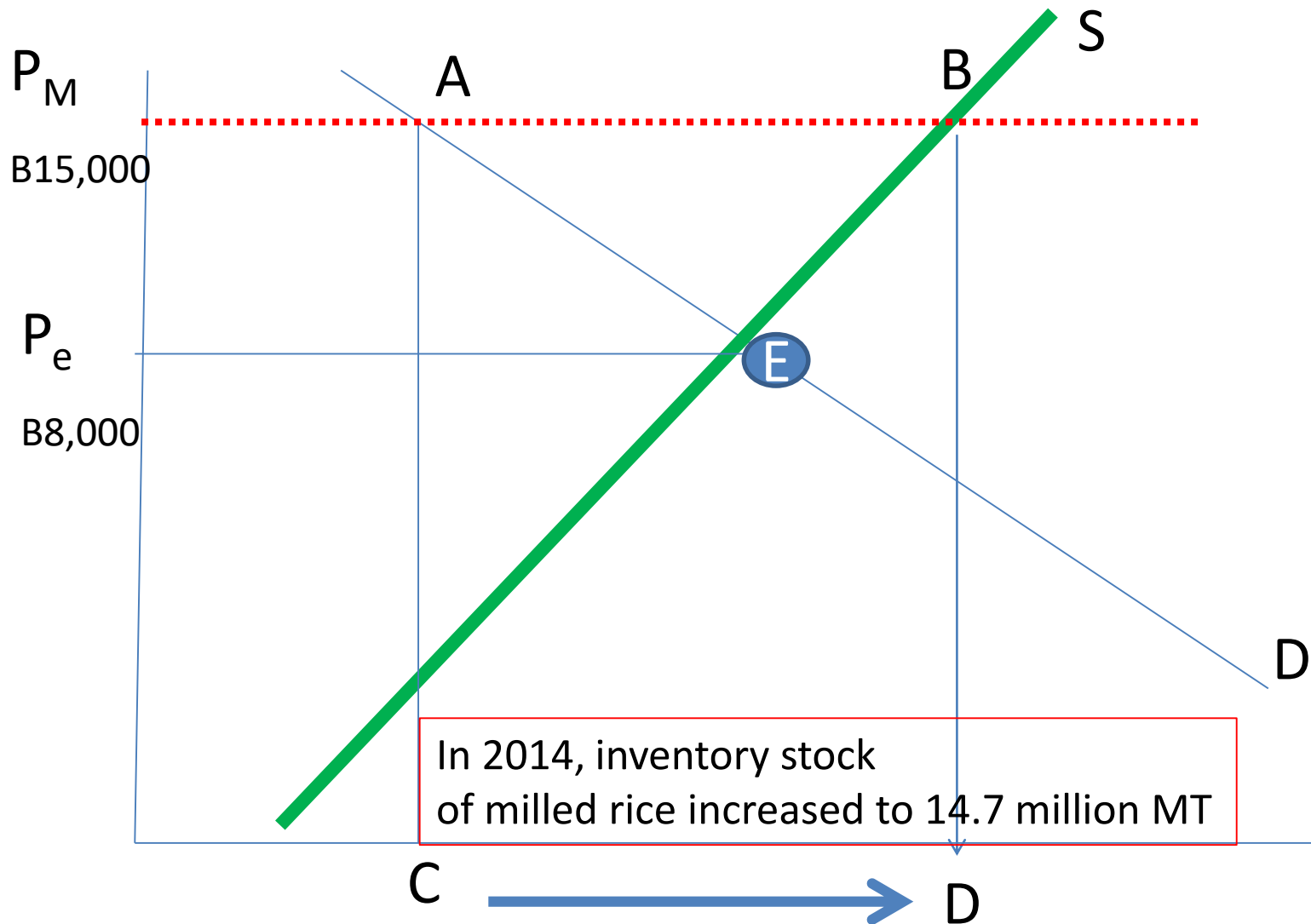
Agricultural subsidies



Paddy **Mortgage** Policy

- Rice exports declined after the government of Prime Minister Yingluck Shinawatra introduced a price support program in **October 2011**.
- The government bought the grains from farmers above market prices to boost domestic prices to lift rural incomes.
- Analytical diagram (Area ABCD)

Mortgage Price Support Program for paddy rice



Consequences of the rice mortgage scheme

- The government spent 689 billion baht in 2011 and 2012 buying rice from farmers at prices that were as much as **76 % higher than market prices**.
- The government rice inventories reached **14.7** million tons in 2014, compared with **6.1** million in 2010.
- There were storage cost and steep depreciation rate of old rice stock
- Smuggled rice from neighboring countries
- Loss of international competitiveness

Cassava: Another subsidized crop

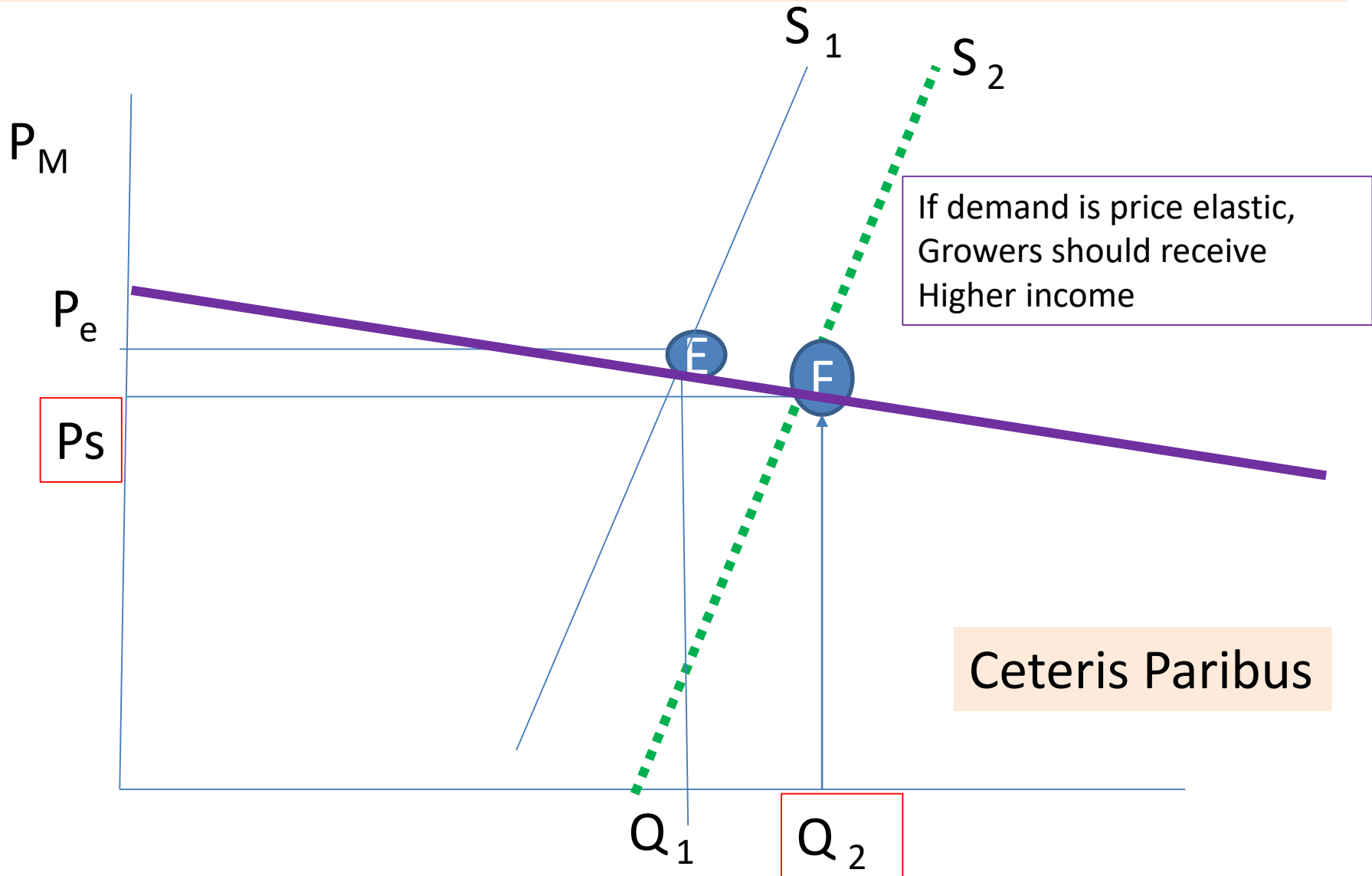


Subsidies for cassava farmers in 2015

low interest rates

- In January 2015, the cabinet approved 2,760 million baht to subsidize 3 % interest rate for BAAC's 50,000 baht loan for each farmers who **postpones harvesting** in order to push up the price to 2.80 baht/kg at the beginning harvest season.
- The interest subsidy at 3% also goes to **processing factories, exporters, and ethanol producers to purchase tapioca at the high supply seasons** to shore up the price and to farmers who adopt the water dripping system and sand and soil-separated screening system for clean and high quality tapioca.

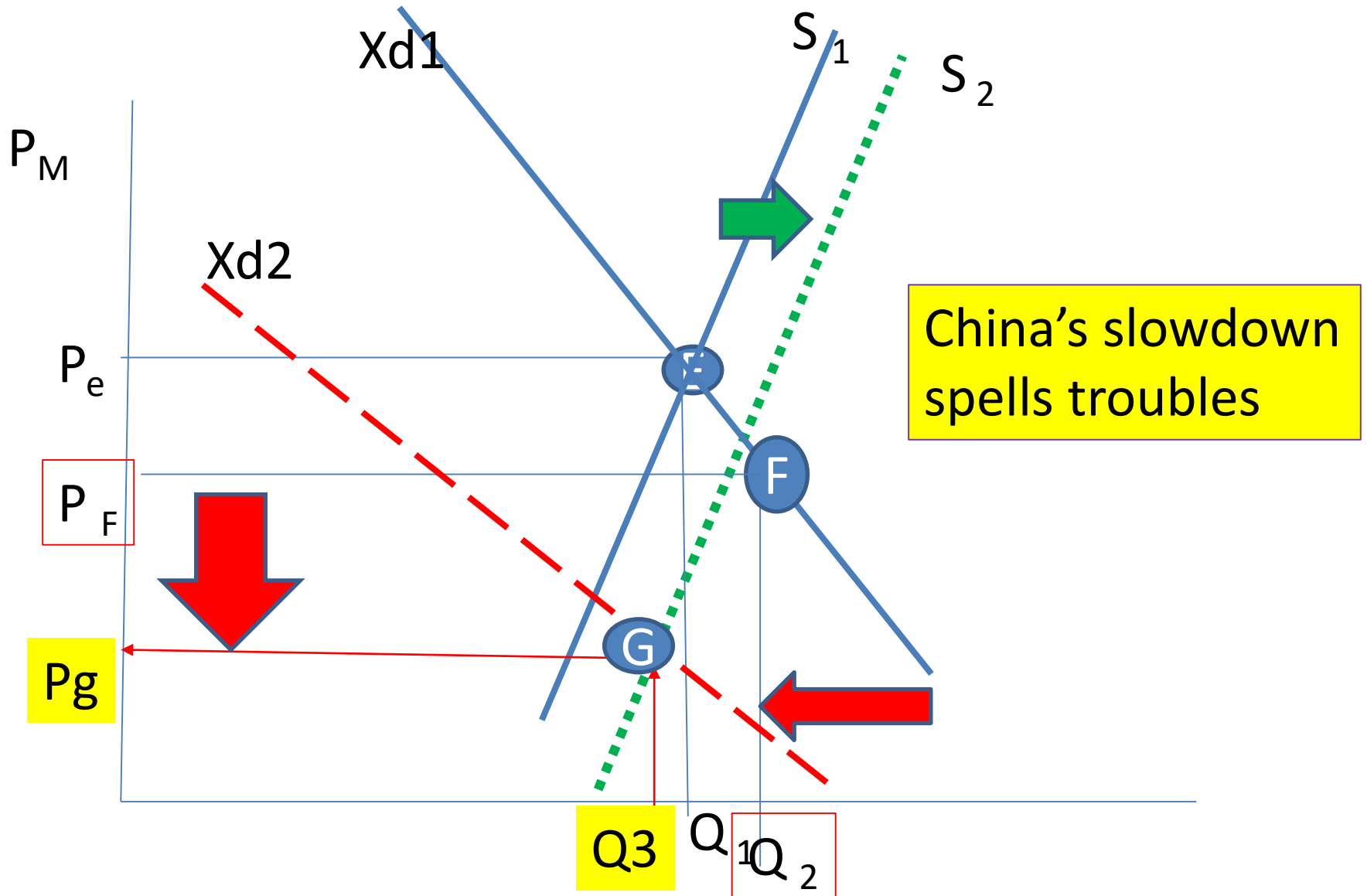
Subsidized inputs for cassava growers



Bad news for cassava growers

- In 2016, the export price of tapioca decreased 10 per cent from \$289 per ton in 2015 to \$264.
- The government *had asked* tapioca traders to purchase cassava at Bt1.90 per kilo to protect farmers from the falling prices.
- Cassava is currently traded at Bt1.60 to Bt1.70 per kilogram, lower than last year's price of Bt2.50 per kilo.
- **It is estimated that cassava production in 2016 reached 31 million tons, of which 21 million tons grown from November to April.**
- ***But more supply does not mean higher export revenues.***

But other things do not remain unchanged: No more Ceteris Paribus assumption



Review Questions

- Discuss the costs and benefits of the rice-pledging program in short-run and long-run impact on the Thai economy.
- Should the government intervene to support commodity prices such as cassava?
- How should the government subsidize farm inputs?
- What should be a sustainable scheme to help farmers in the long run?