

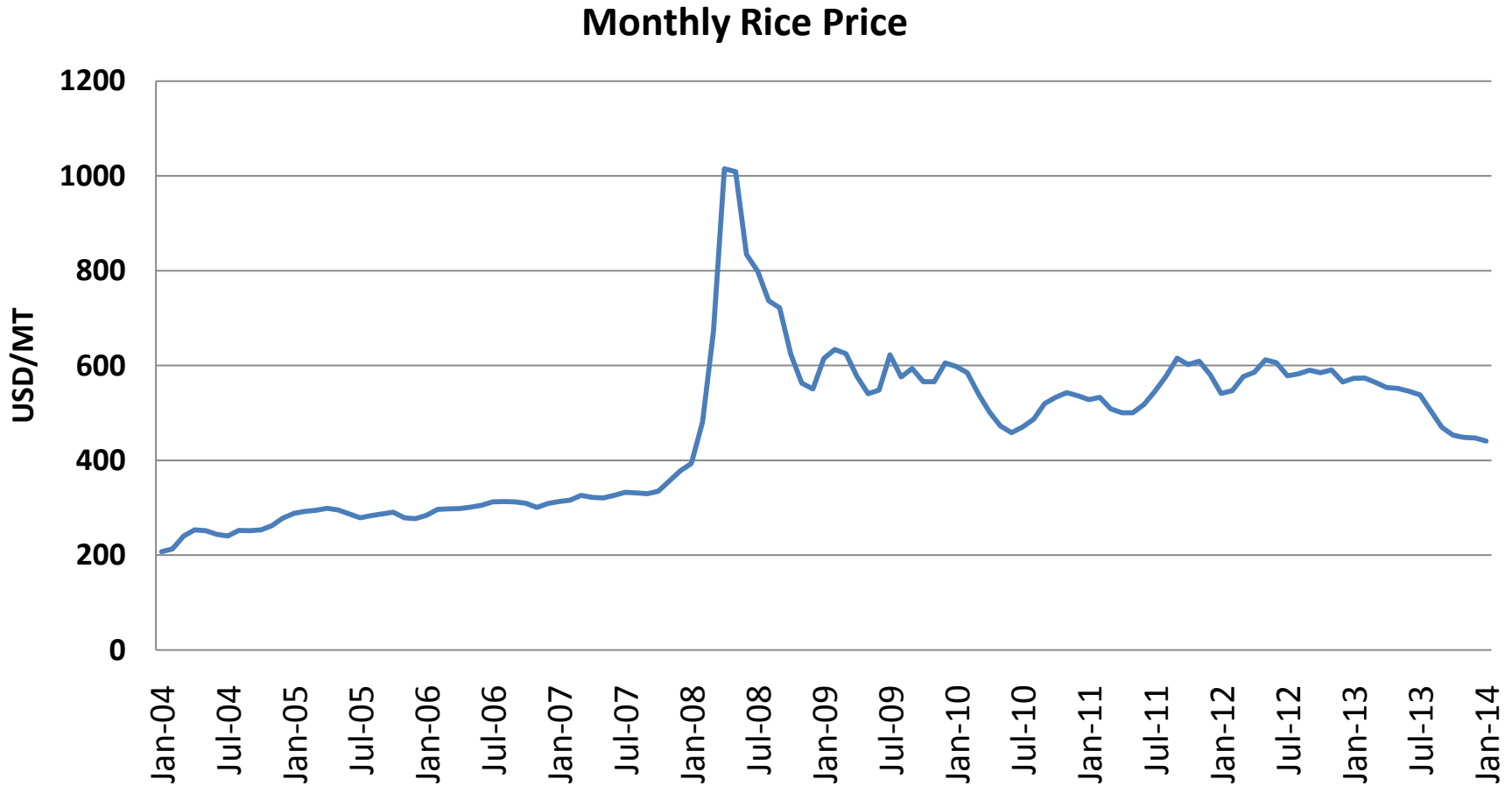
Issues in Thailand's agriculture

Lecture 12
Bhanupong

Main themes

- Declining terms of trade
- Agricultural growth and volatility
- Chemical farming
- Food security and grain dependency
- International competition of Thai agricultural exports
- Criticism of the rice-pledging scheme

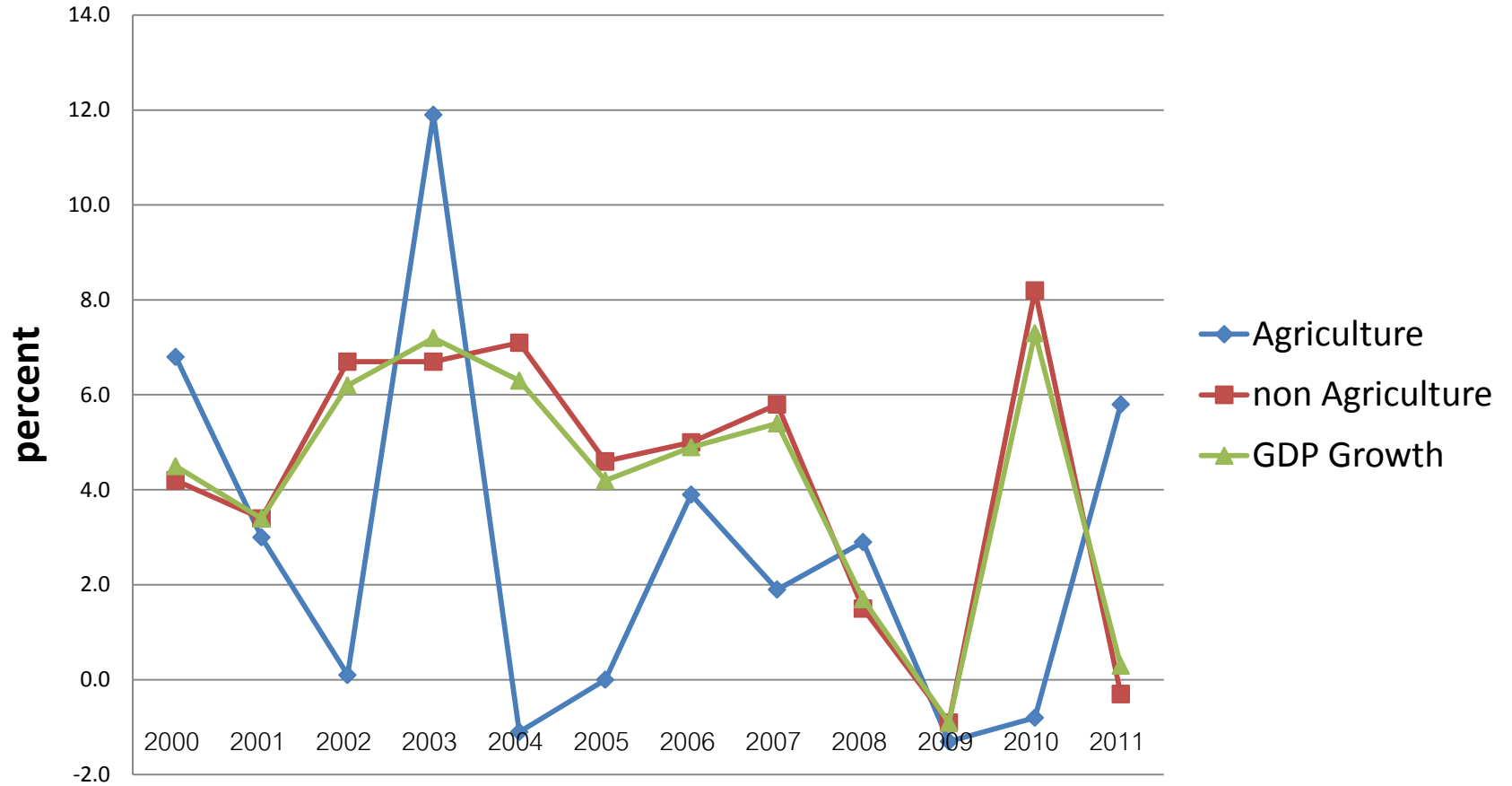
The 2008 Global Food Crisis and the long-term declining price of rice



Rice / Poultry (chicken) Price Ratio



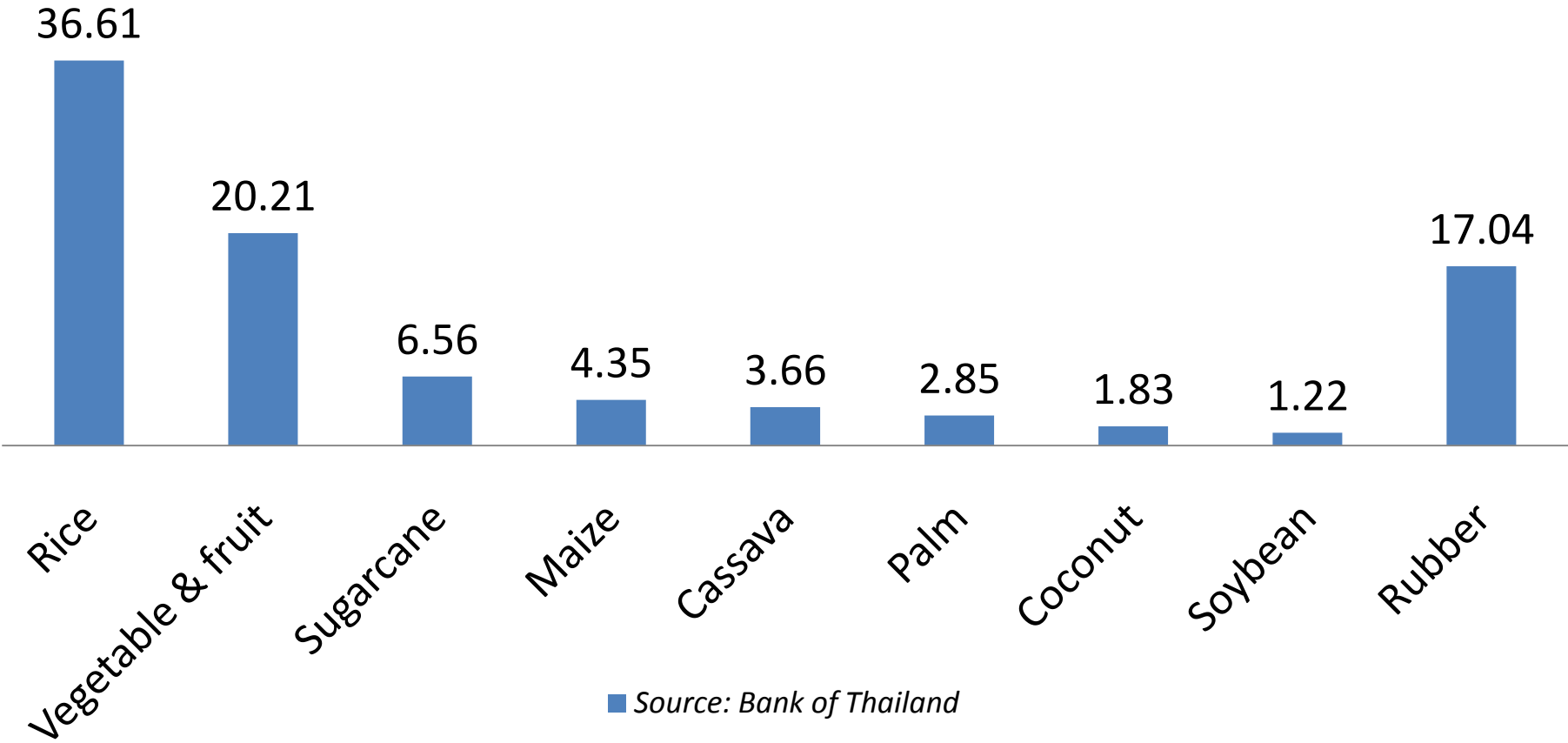
Sectoral Growth



Sectoral Growth 2000-2011

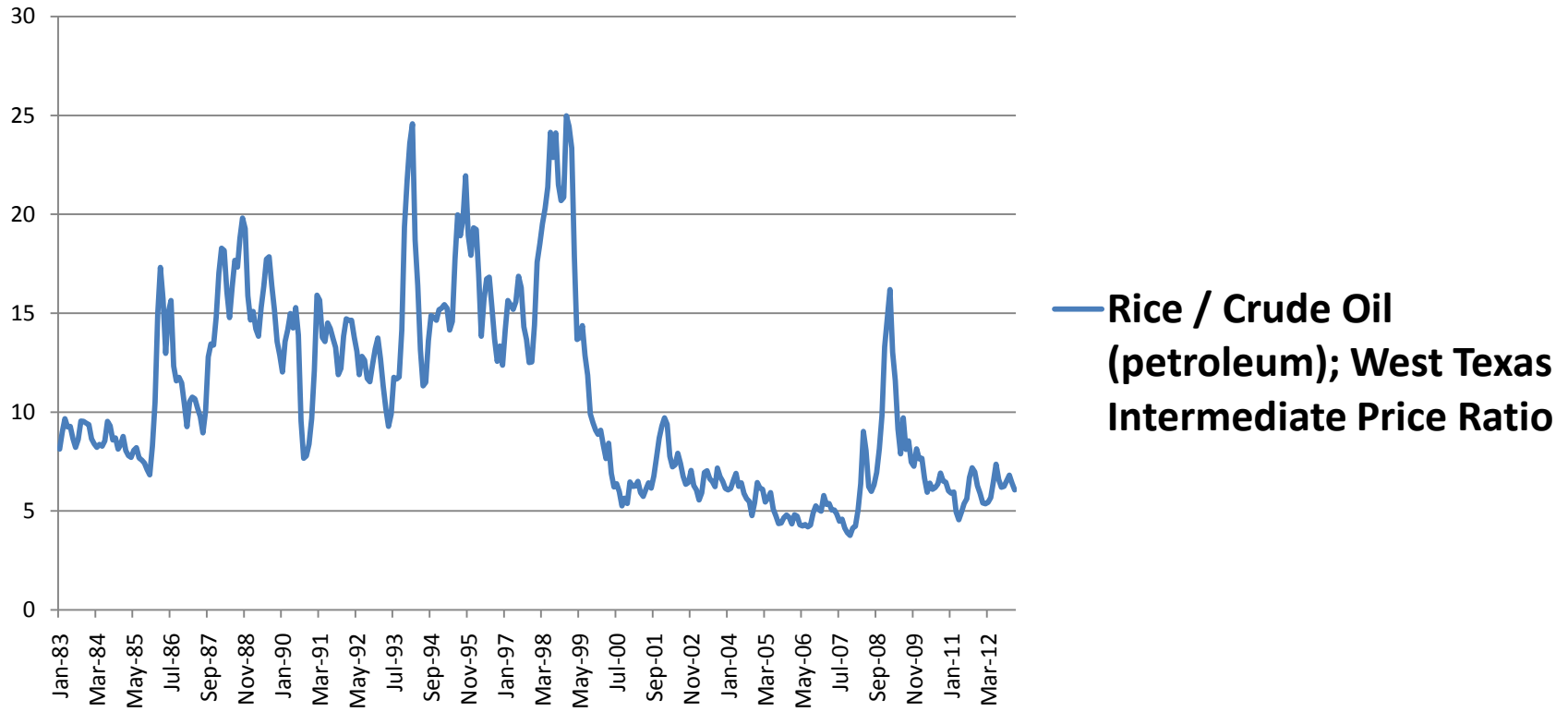
	STDV	Average	Coefficient of variation
Agriculture	3.9	2.8	1.42
non Agriculture	2.9	4.3	0.67
GDP Growth	2.6	4.2	0.63

Weight in Crops Production index



Terms of trade

**Rice / Crude Oil (petroleum)
West Texas Intermediate Price Ratio**



A lucky year: 2008

- Thai rice farmers only managed to get good prices in 2008 because the other main rice-producing countries, such as Vietnam and India, had to cope with natural disasters such as droughts and flooding.
- But when there are no natural disasters in other countries, Thai farmers are not able to compete with others in terms of price, because..

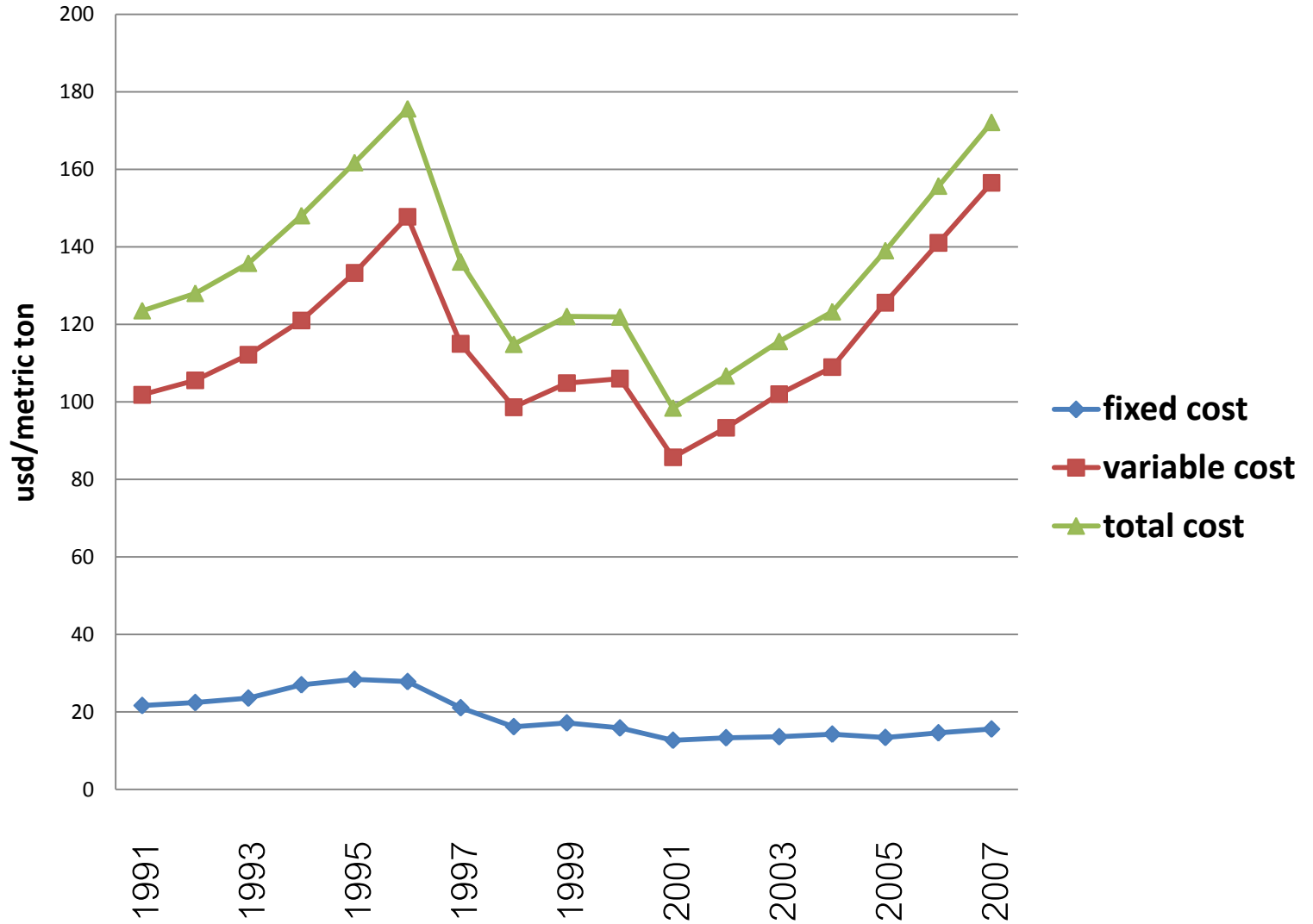
Agflation

- A wide range of factors has been blamed for the food price increases.
- Culprits include slowing agricultural productivity, climatic and weather-related factors, rising demand from China and India, higher oil prices and demand for bio-fuels, speculative behavior in financial markets, hoarding, falling stocks, dollar depreciation, low interest rates, among others.

From boom to bust

- But from the second half of 2008, global attention shifted again.
- The eruption of the global financial crisis and slide of the global economy into recession raised fears that the world economy would plunge into another Great Depression.
- One consequence of the global recession has been a fall in world commodity prices that has also affected food commodity prices.
- This fall in food prices (and the fall in oil prices) has mitigated immediate concerns about large-scale food insecurity.

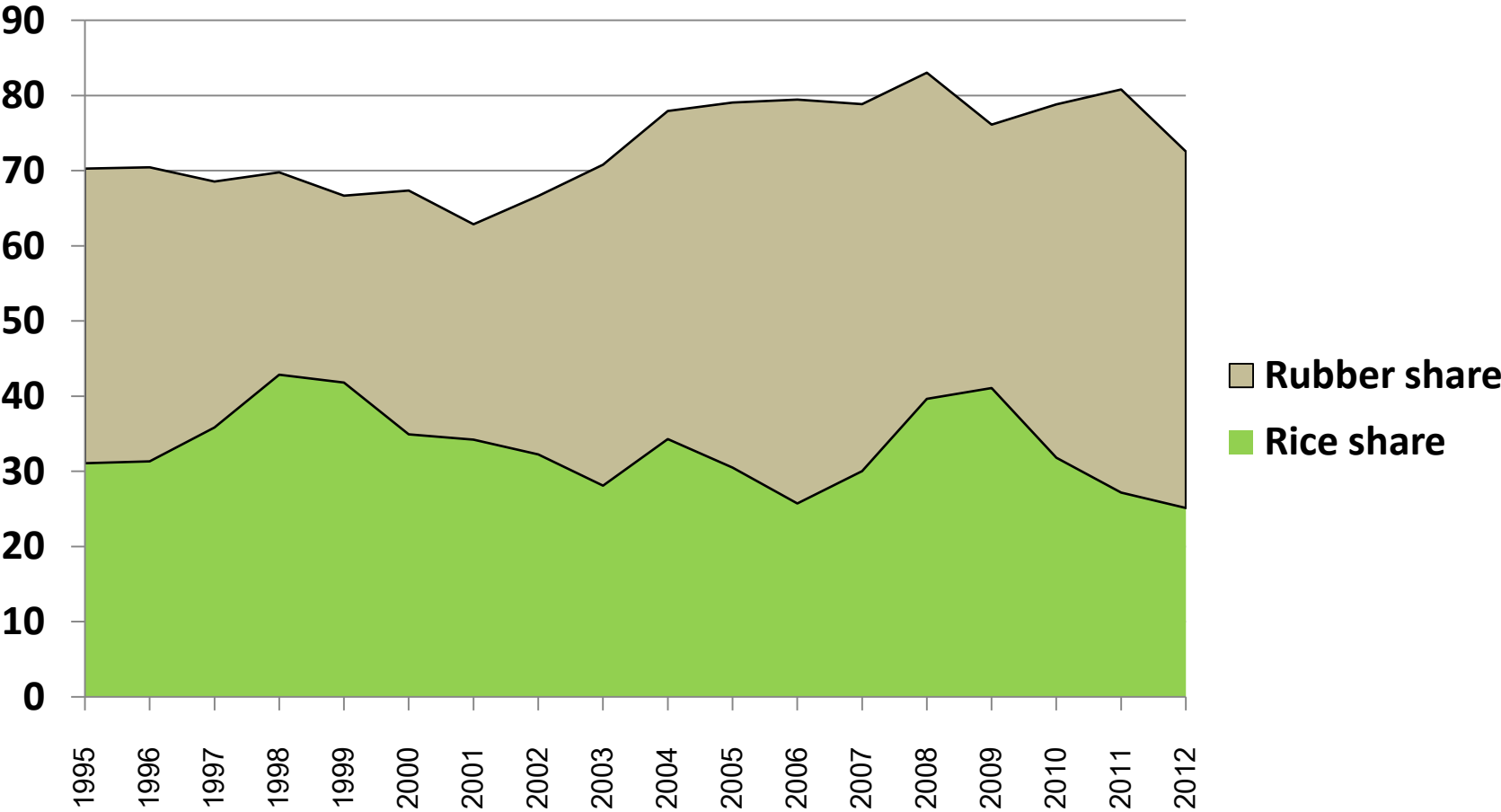
Cost of paddy production



Cost of chemical farming (baht /rai)

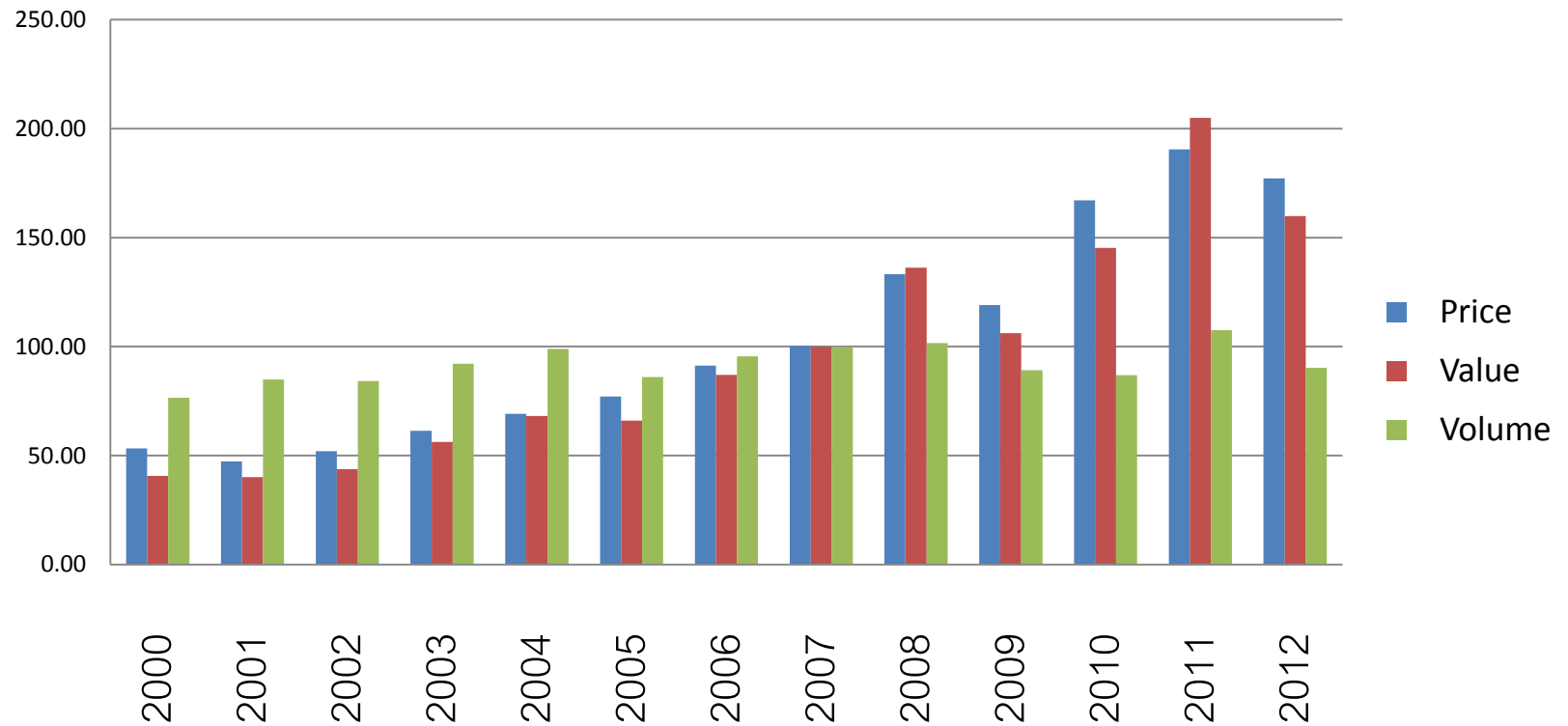
Fertilizer	900-1000
Pesticides, insecticides	550-1000
Rice seed	600-750
Fuel	300
Labor	200
Harvester rental	500
Land rental	1500
Farm management fee	2400
Total cost	7450-8150

Shares in total agricultural exports



Value = P x Q

Agricultural Exports



Manufactured exports



Correlation coefficients between export values (2000-2012)

	Price	volume
agriculture	.98	.62
manufacturing	.98	.99

Supply and demand analysis

- Price elasticity of supply
- A small country assumption?
- Price elasticity of demand and substitutes

Jasmine vs. jazzman

- **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 have 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.
- Consumers and Asian restaurants in the US may shift to serving Jazzman rice as it tastes the same but is cheaper.
- Another challenge is the yield: up to 1260 kilograms per rai of Jazzman rice can be grown, compared to 400 kilograms of Thai jasmine rice production.

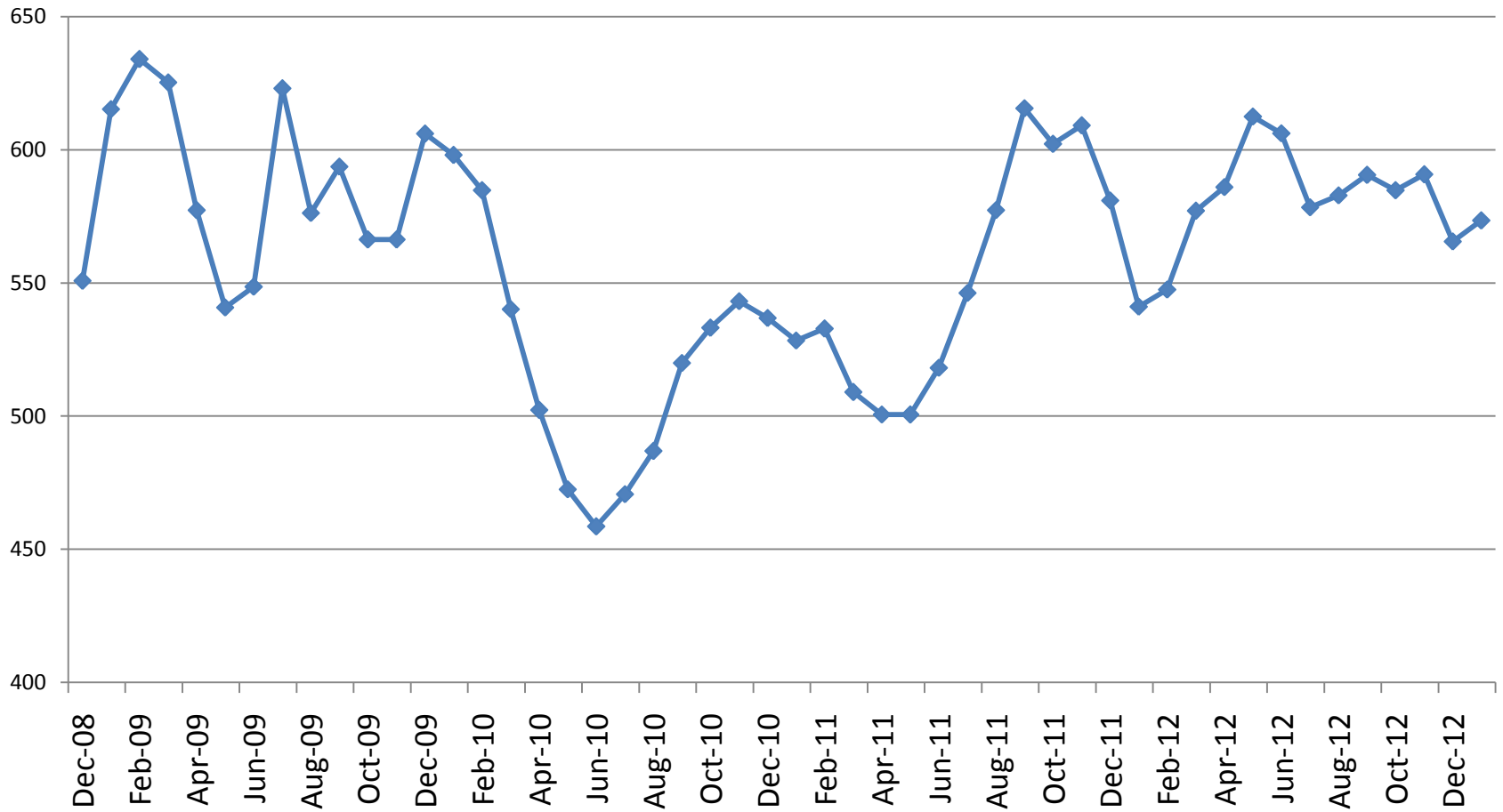
Innovation and competition

- The LSU rice breeder who developed the variety said the project required 12 years of work to obtain a long-grain rice with good milling quality, high yield and the correct aroma and flavor.
- Consumers and Asian restaurants in the US may shift to serving Jazzman rice as it tastes the same but is cheaper.

Jasmine rice from Vietnam

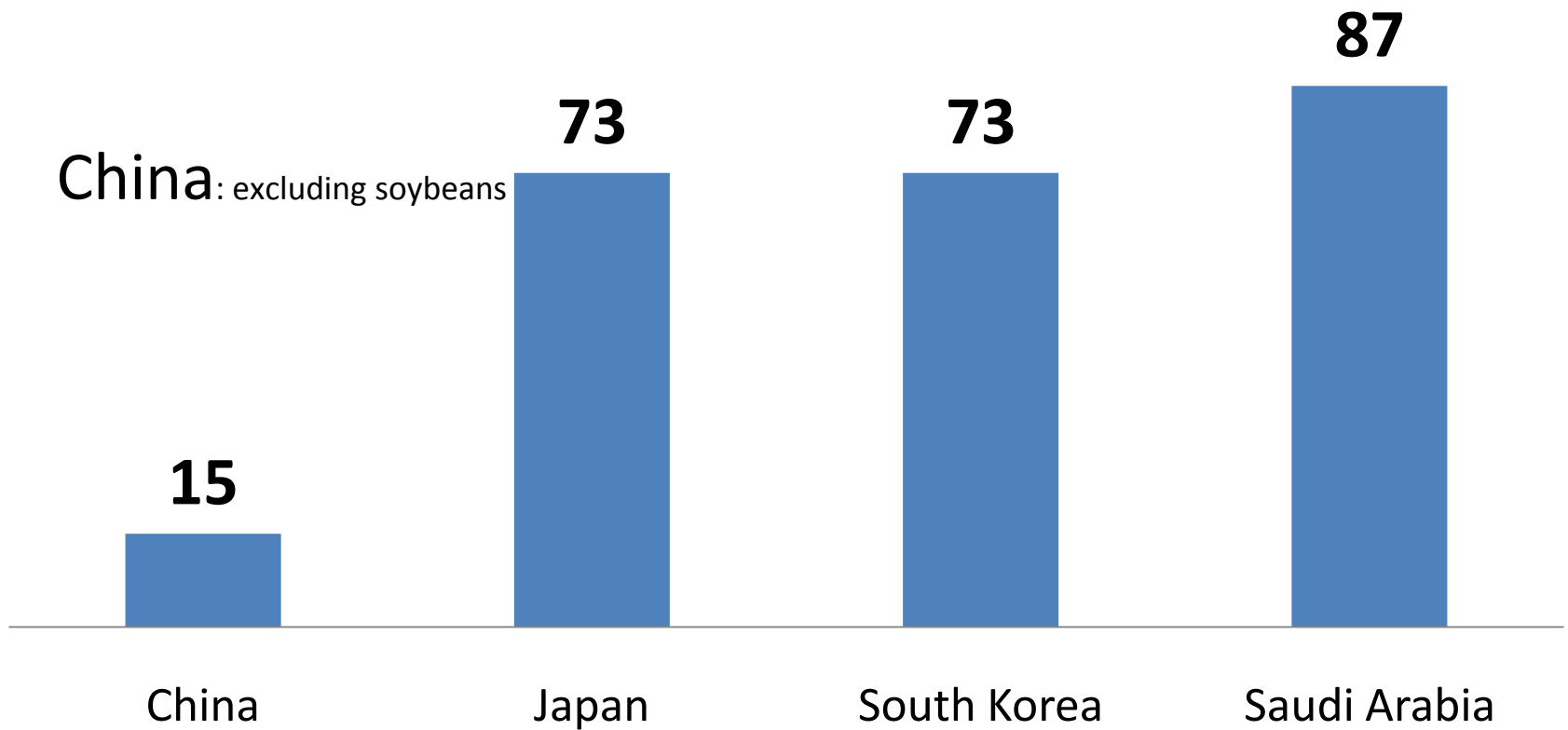
- Vietnam has already come up with rice that tastes similar to Jasmine.
- It is now on sales in supermarkets in London at 1,000 baht for 20 kg bag, compared with 1,500 baht Jasmine rice from Thailand.
- The recent dong devaluation has enabled Vietnam to offer 50% lower price than Thailand.

Rice price (dollar per ton)



Grain Dependency

■ % of imports in domestic consumption



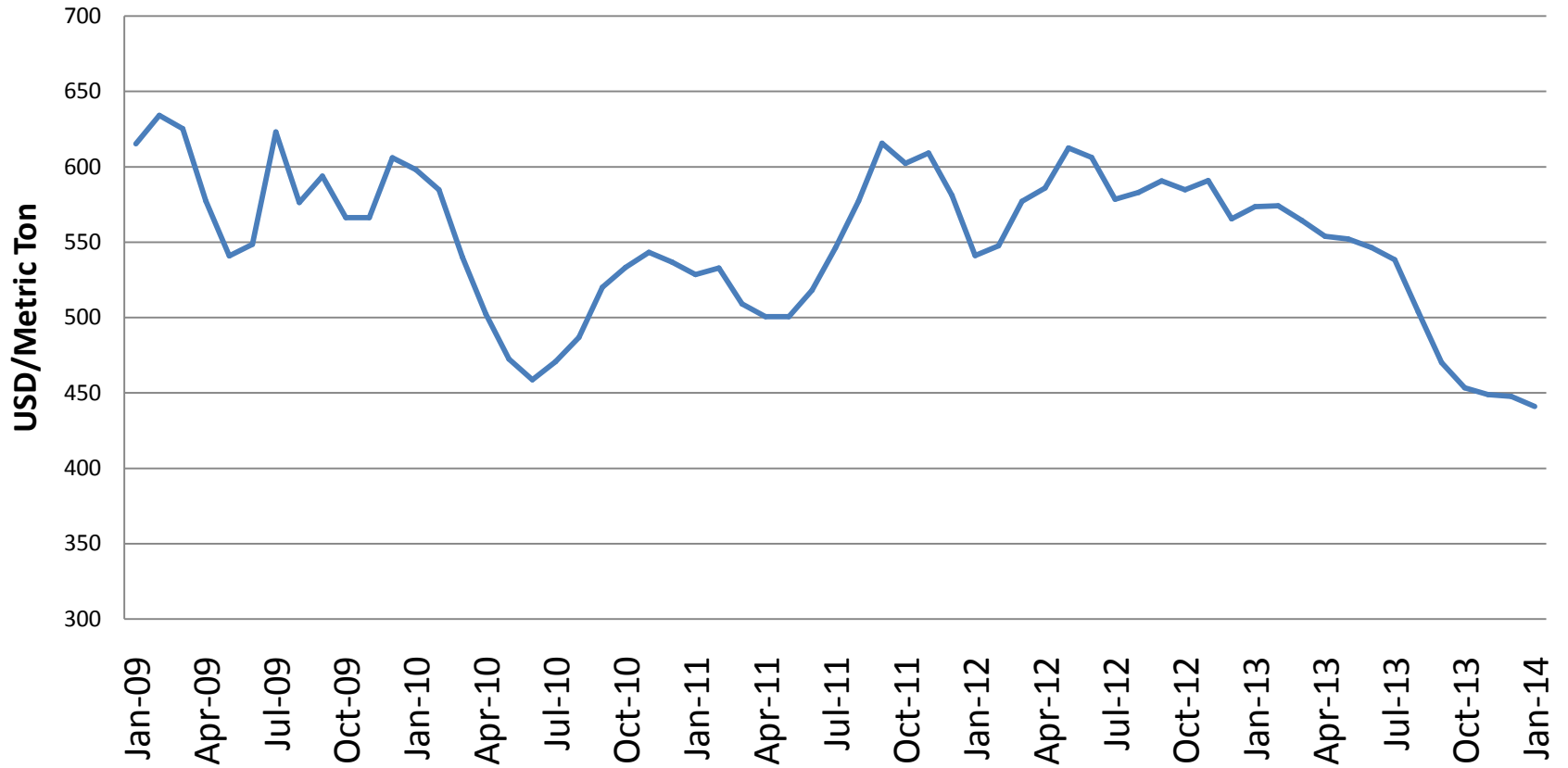
China's self-sufficient policy

- In the early 1960s, even as tens of millions of Chinese starved in a brutal famine, Mao Zedong was reluctant to import grain.
- Now China is deeply integrated into global commodity markets.
- China calls for 95% of grain demand to be met by domestic production.

Redefine self-sufficiency

- In 1961, China would have needed 25 % of total export revenues to meet domestic grain shortfalls through imports.
- Today, that proportion is at most 2 %.
- China should import more of its food rather than dedicate limited land and water resources to growing it all.
- Earning enough foreign exchange through exports to import whatever grain you need could be described as self-sufficiency.

Monthly Rice Price



Thailand rice exports hit 12-year low

- Rice exports from Thailand plunged 37 per cent last year to the lowest in more than a decade, plunging the nation from first in the world to third place.
- In 2012 Thailand sold 6.73 million (metric) tonnes with a value of \$4.63 billion, compared with 10.7 million tonnes, worth \$6.43 billion in 2011.

Thailand rice exports hit 12-year low

Published Bangkok Post Jan 24, 2012

- India became the largest supplier in 2011, selling 10.3 million tonnes, according to the USDA.
- Vietnam, world number two exporter, exported 8 million tonnes in 2011.

Paddy **Mortgage** Policy

- Rice exports declined after the government of Prime Minister Yingluck Shinawatra introduced a price support programme in October, 2011.
- The government bought the grain from farmers above market rates to boost domestic prices and lift rural incomes.

Stocking up problems

- 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 rates.
- The government rice inventories reached 14.7 million tonnes in 2014, compared with 6.1 million in 2010.

Disruption of the world market

- But whether the actual amount will match with the purchase figures will only be known when the rice is actually sold to exporters or sold by the government in government-to-government deals.
- The huge stockpile will pose a real problem with the arrival of new harvests when warehouse space is needed to store new rice to be bought under the scheme.

Disruption of the world market

- Besides the space problem, the rice quality will drop if the grains are kept for too long and they will fetch much lower prices.
- Pressed with these dual problems, the government may be forced to sell cheap.
- There is no doubt the government will suffer a loss if it wants to dispose of the massive rice stockpile to make room for the arrival of new rice purchases.
- The point is how big a loss. This depends on the efficiency of the government, or the Commerce Ministry in particular, which is, at best, questionable.

An alternative

- The government has good intentions in helping farmers earn more from their crops even though it also expects to win their votes during the election.
- The loss burden from the rice mortgage scheme may be acceptable if the farmers are the only real beneficiaries of the scheme.
- However, others have benefited much more than the farmers, such as millers, brokers, corrupt politicians and officials.

- Farmers kept their rice in their own granary and got money from the BAAC at low interest.
- If the price rose, the farmers could sell their rice and return the money with interest to BAAC.
- It is difficult to pay our farmers as it would be in breach of the constitution to borrow money while being a caretaker government.

Questions

- Discuss the costs and benefits of the rice-pledging program in short-run and long-run impact on the Thai economy.