

Agricultural Output Price and Marketing Policies (2)

Topics

- **Food Marketing**
- **Instability of farm prices**
- **Agricultural price and income policies**

Agricultural Output Price and Marketing Policies

2. Instability of farm prices

Price Variation

- **seasonal factors**
- **cyclical factors**
- **trend**
- **irregular factors**

Seasonal Factors

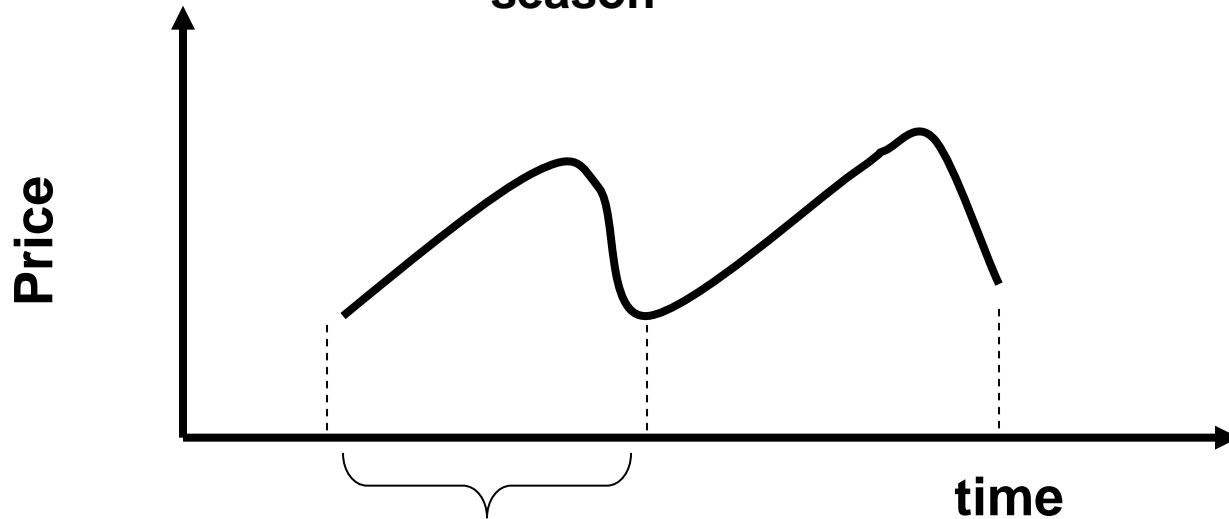
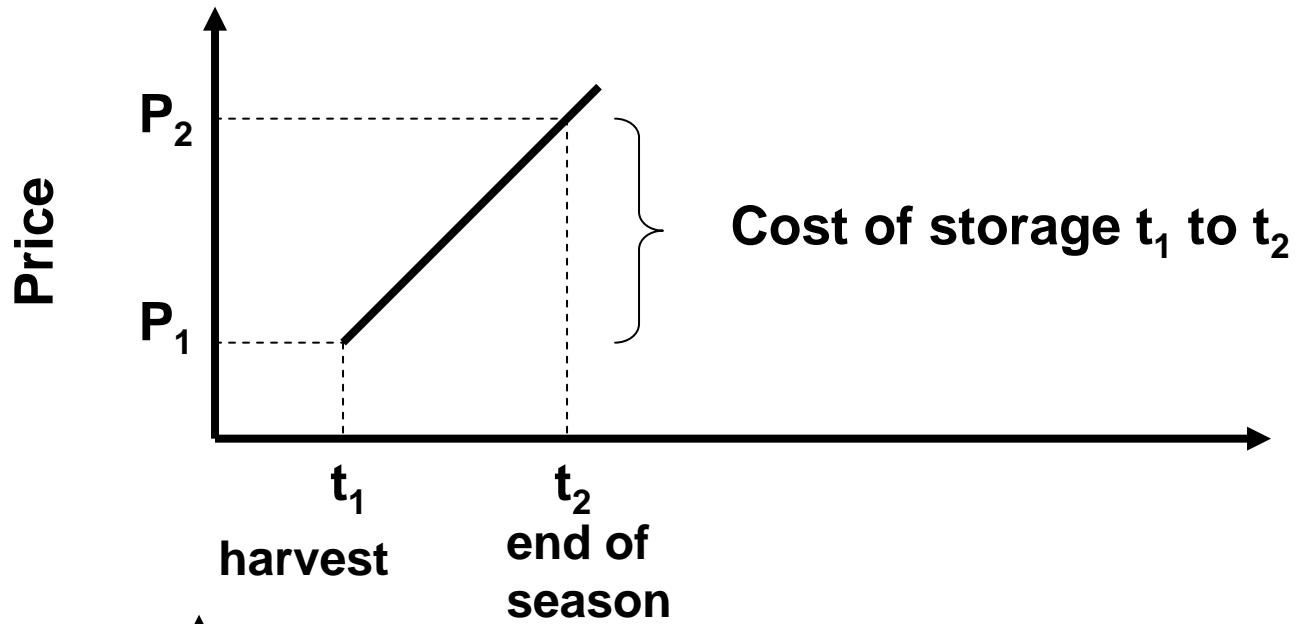
- **Seasonality in demand, seasonality in supply and marketing, or both**

- **e.g. seasonality in supply**

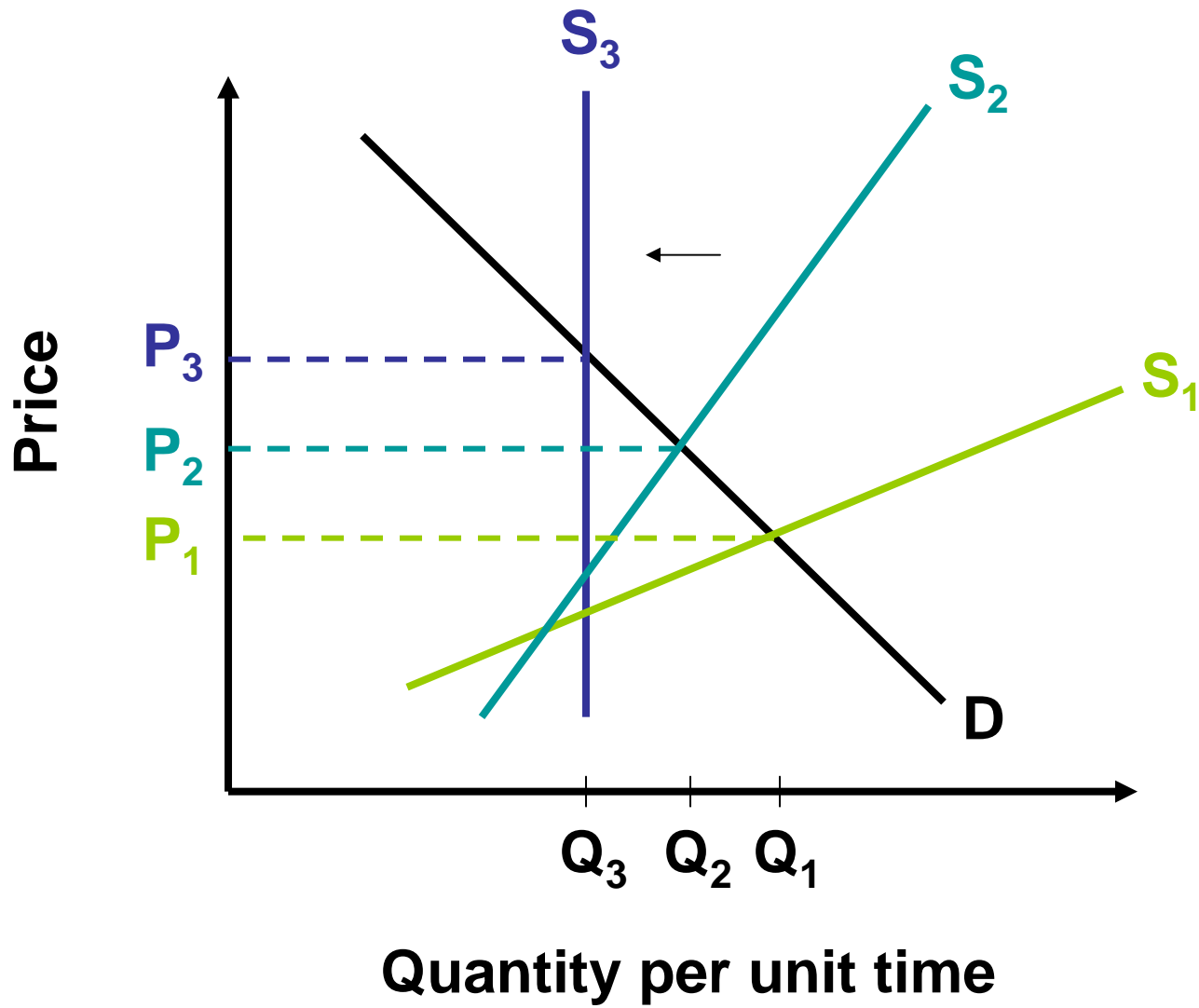
**Price of storable commodities are...
at the harvest time and...**

**at the end of the season
prior to the next harvest**

- **e.g. rice, wheat**

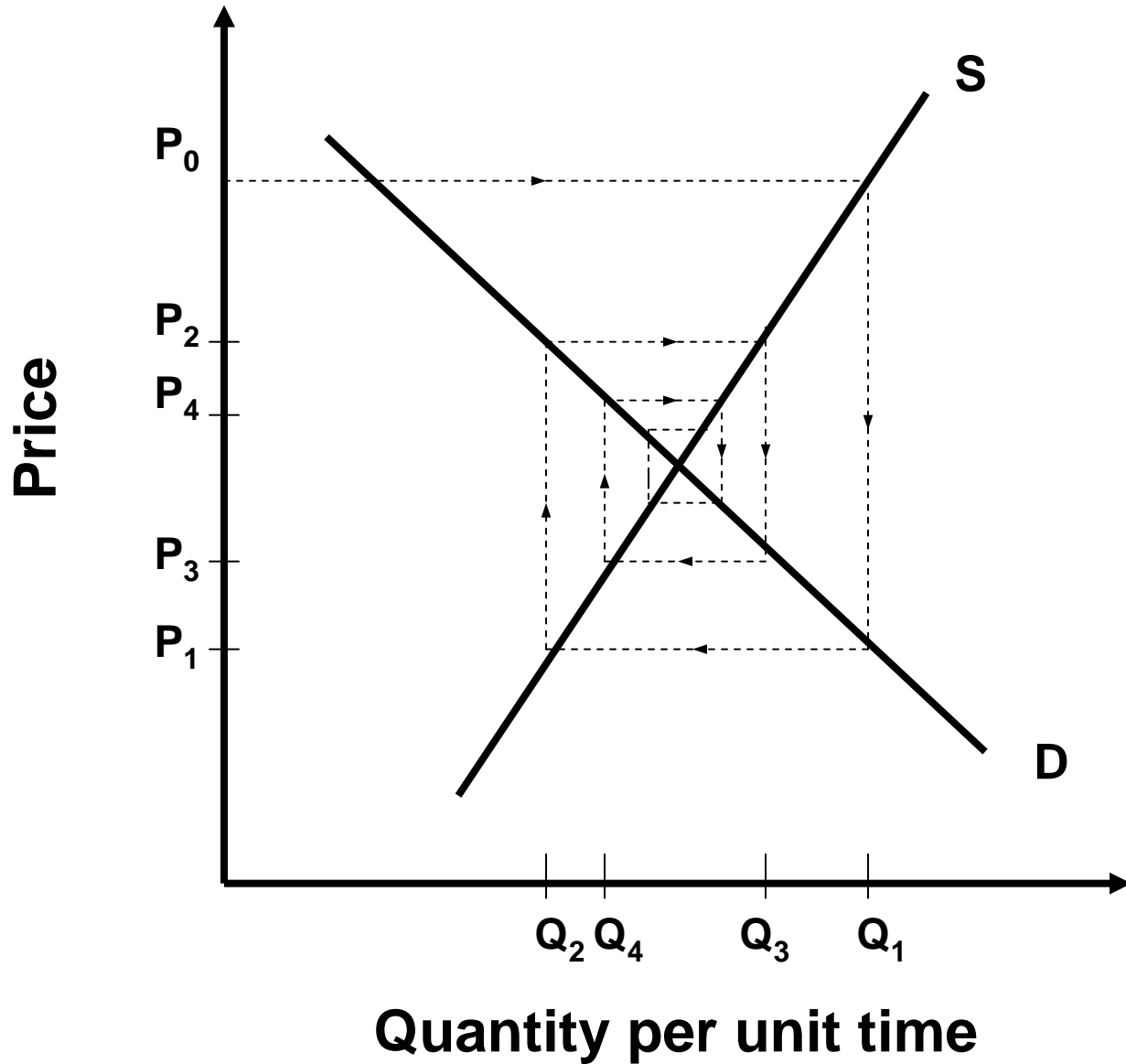


R. Suzuki 2011

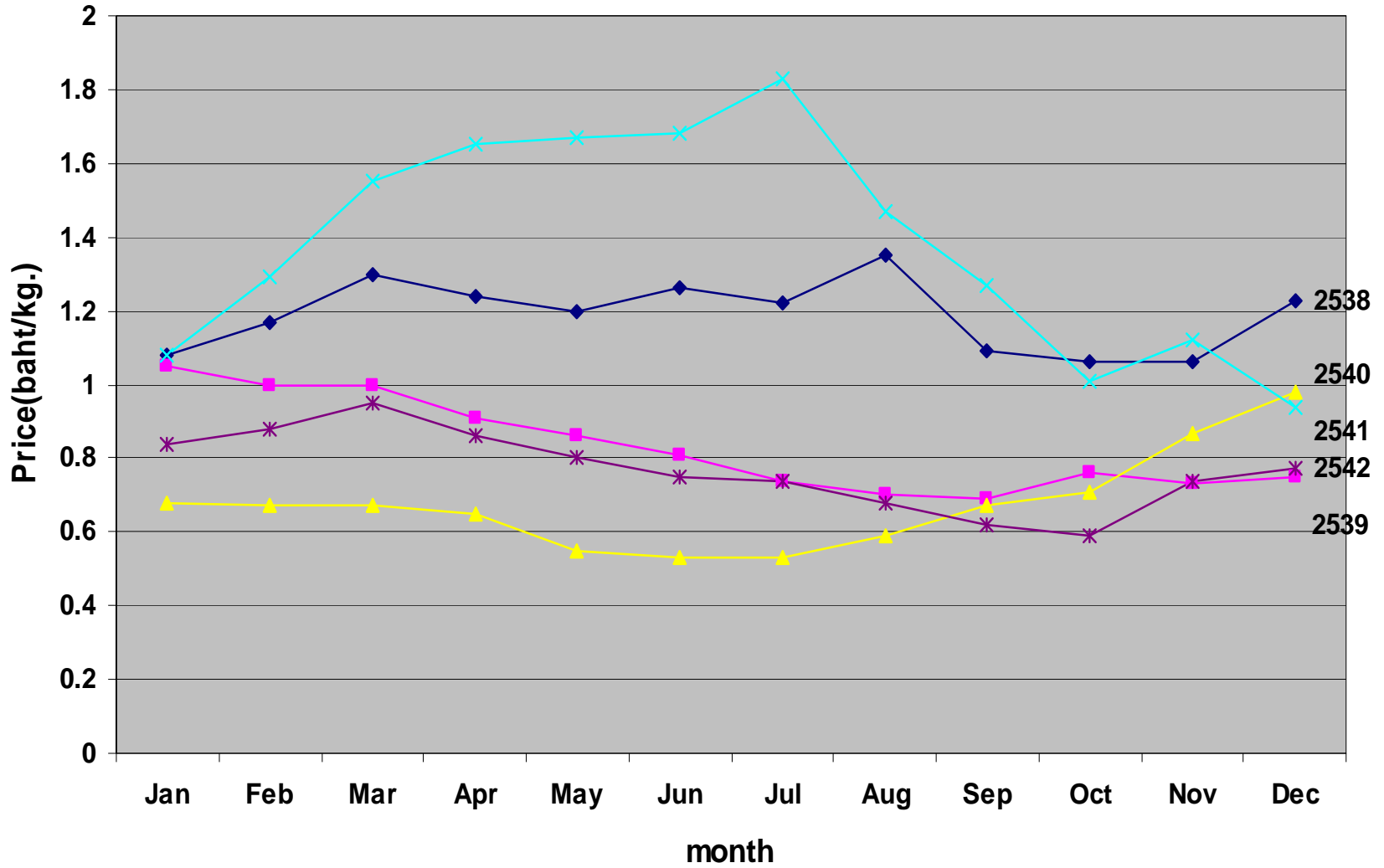


Cyclical Factors

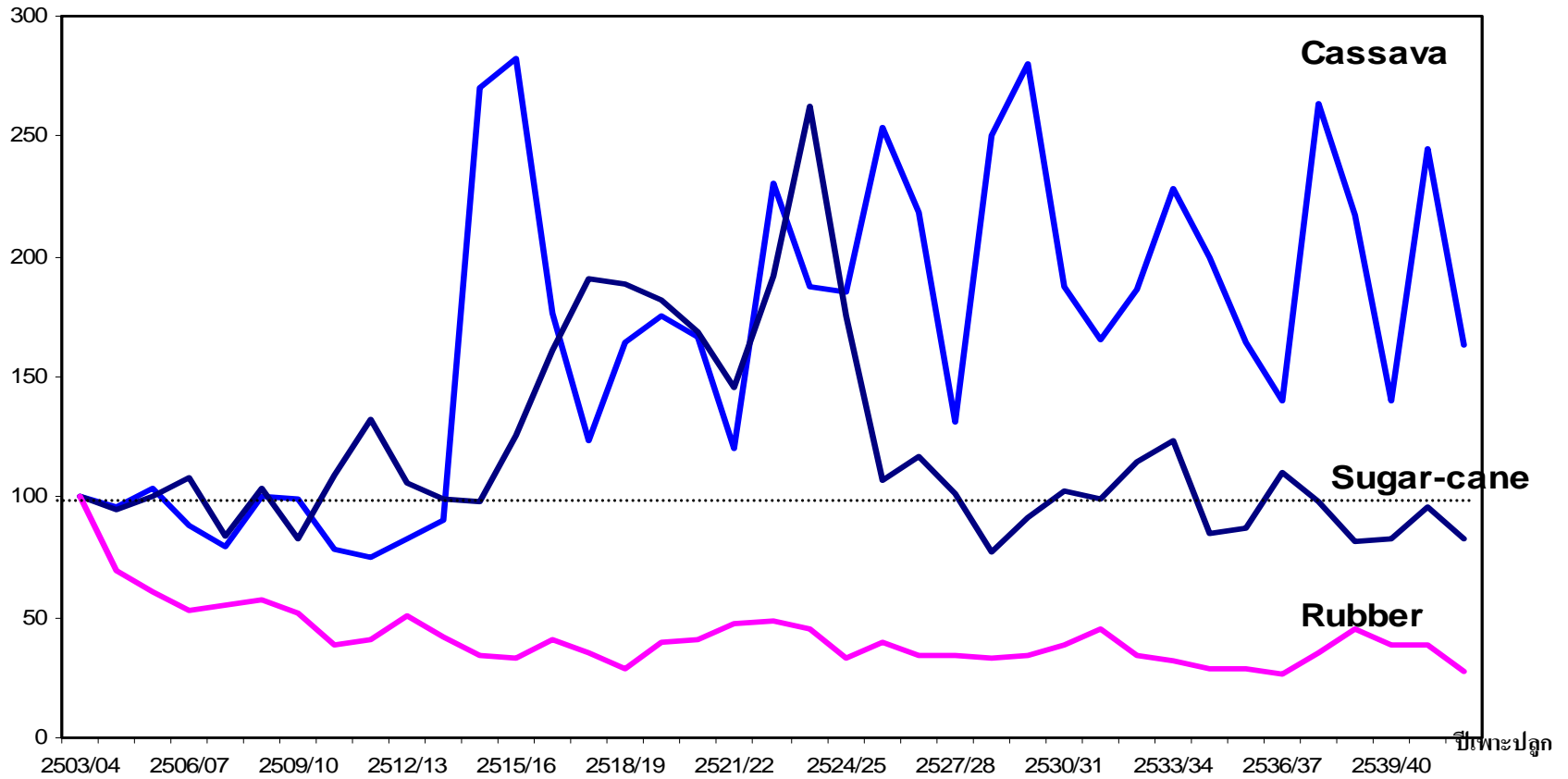
- **Because of time lag in production and imperfect information: Decision how much to produce is based on the price of the previous period**
- **Production expand in response to favorable prices, but leads to lower prices in the next period**
- **e.g. Livestock and its products**
- **Analysis: Cobweb model**



Tapioca

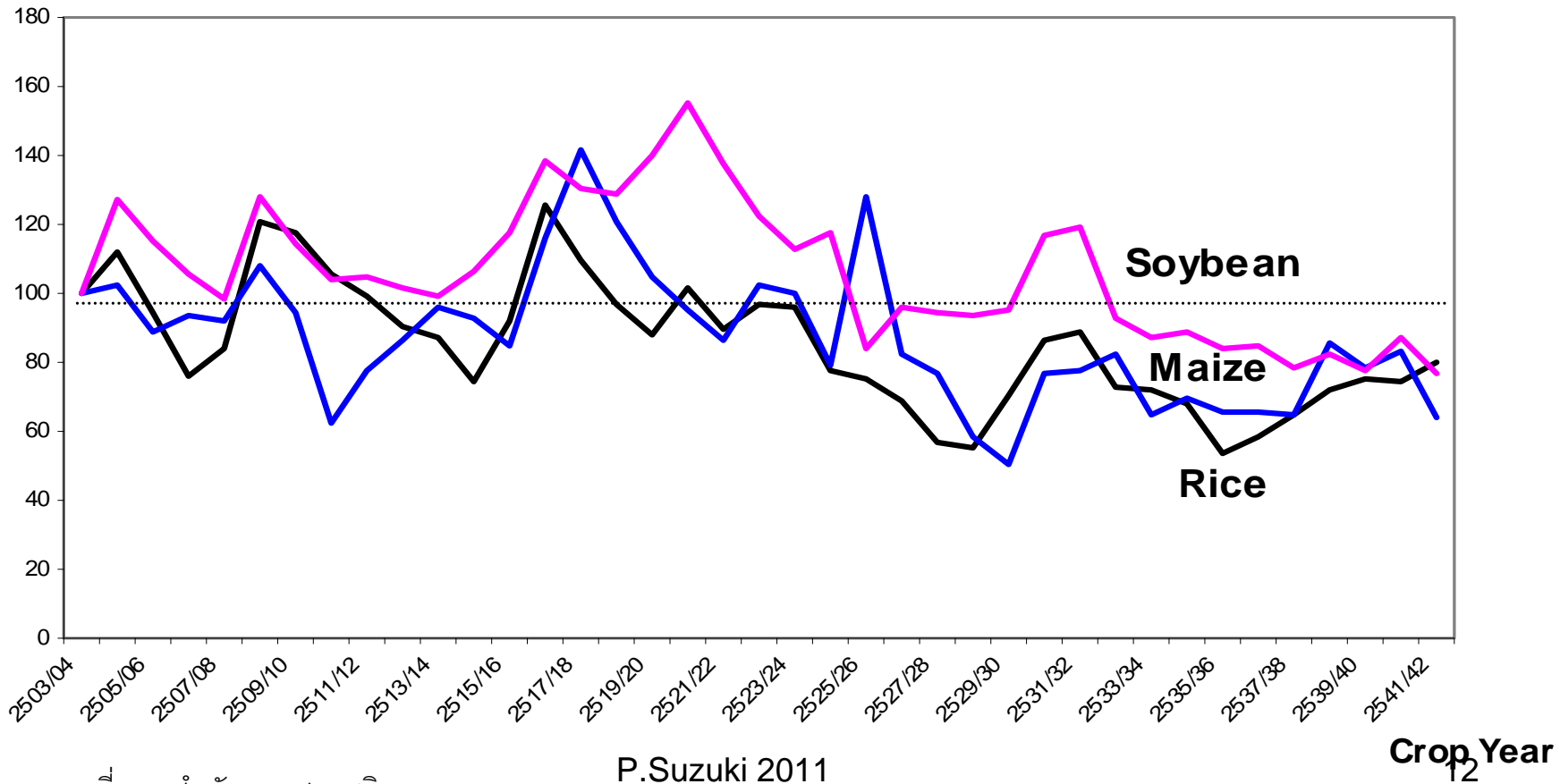


Index of Real Farm Price Trend²⁵⁰³⁼¹⁰⁰



ที่มา : สำนักงานเศรษฐกิจการเกษตร

Index of Real Farm Price 2503 (1960) = 100



ที่มา : สำนักงานเศรษฐกิจการเกษตร

P.Suzuki 2011

Factors affecting trend

- **Supply side**
 - Resource availability
 - Technology
- **Demand side**
 - Population
 - Income
 - Taste

Agricultural Output Price and Marketing Policies

3. Agricultural Pricing Policies

Topics

- **Reasons for Price Intervention**
- **Methods of Price Intervention**
- **Effects of Pricing Policies**

Reasons for Price Intervention

- **With low income, policies tend to bias in favor of manufacturing sector, or agri. export tax**
- **As development proceeds and incomes grow, political pressures shift toward protection for agricultural commodities**
- **Why?**

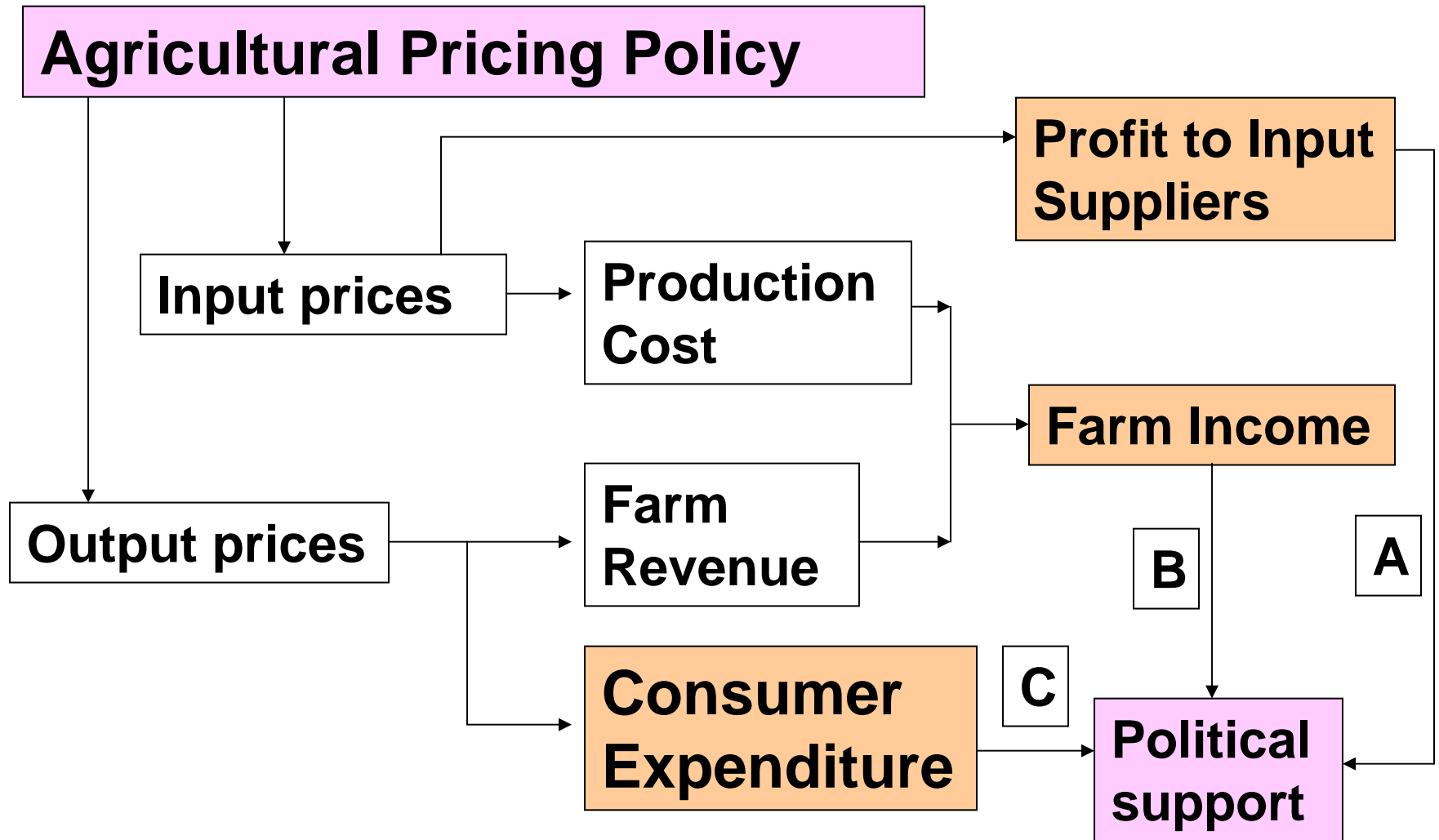
Three Approaches to Explain Policy Choices

- Maximizing social welfare No
- Bargaining outcome for pressure groups Yes
- Instrument for political power Yes

- Politicians are rational actors
- Economic costs may offer political benefits

Bates, Ch.14

in Eicher and Staats (1998)



- **Conflicts of path A, B, and C**
- **The choice is influenced by key interest groups**

**Developing
Countries****Developed
Countries**

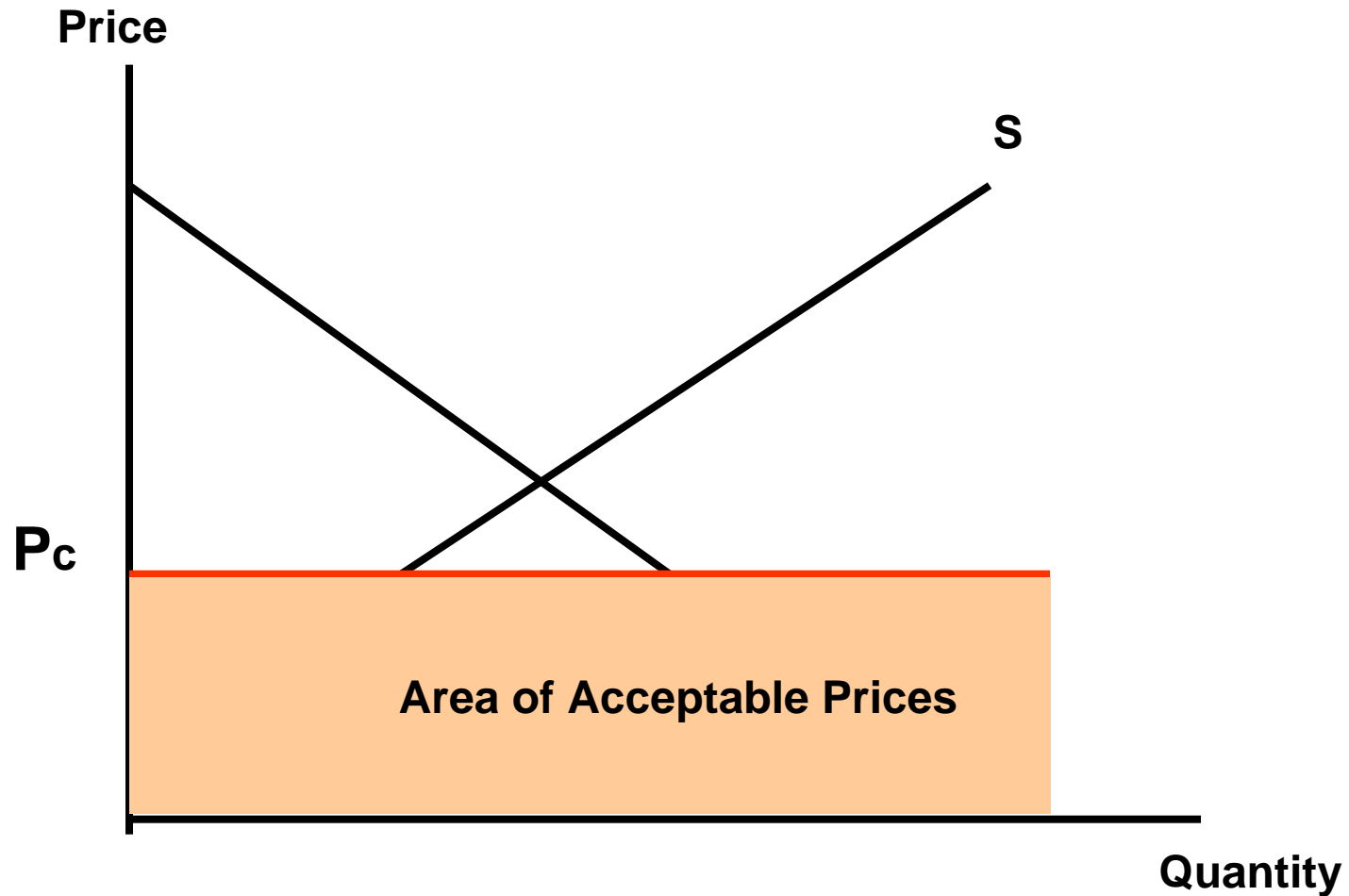
Ag. population (share)	large	small
Geographic dispersion	large	small
Ag. GDP (share)	large	small
Food expenditure (share)	large	small
Government burden	large	small
political pressure (by farm sector)	low	high

Methods of Price Intervention

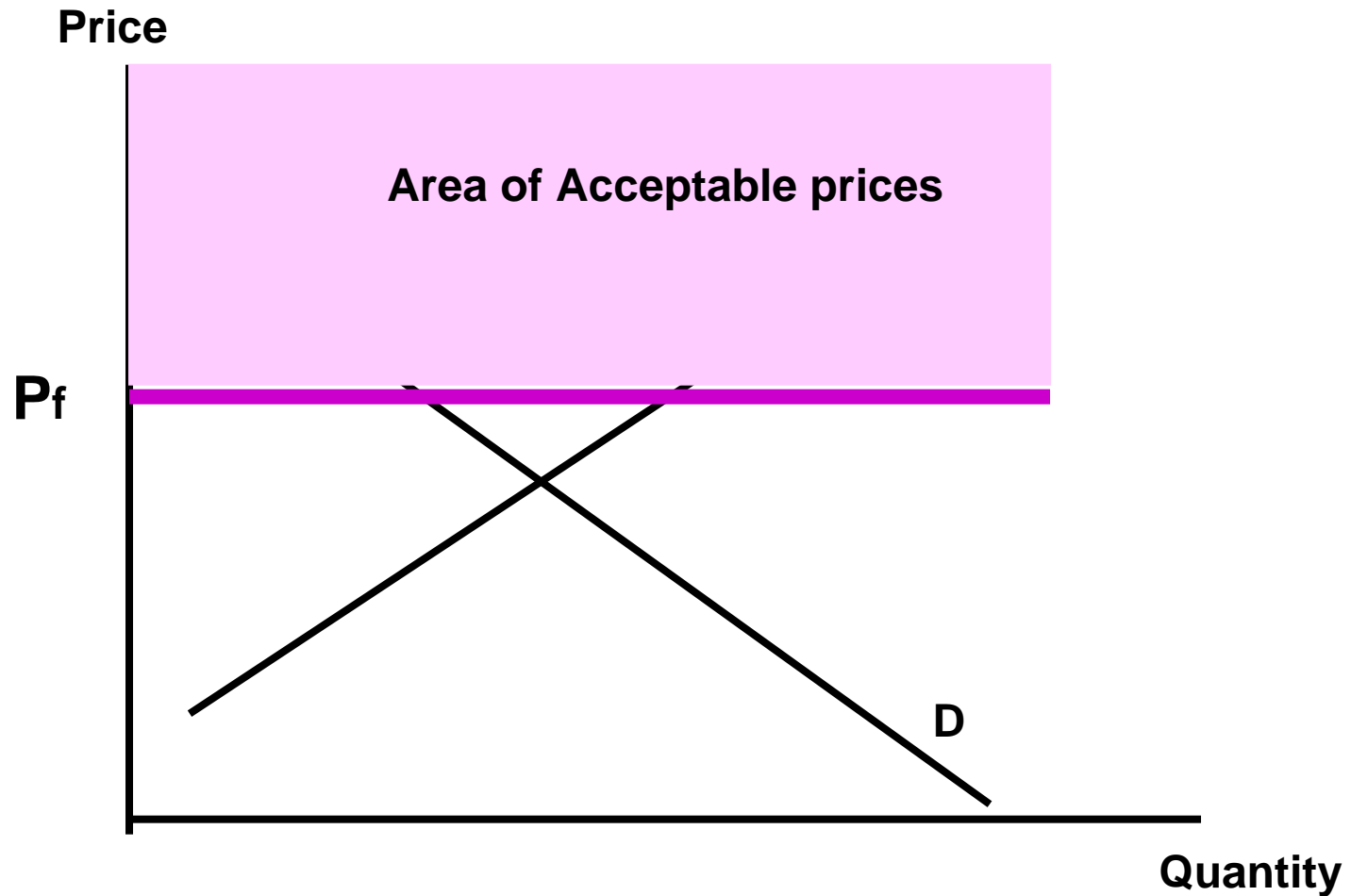
- Price ceilings
- Price floors

➔ To enforce the distorted prices, supplementary measures/programs are needed

Ceiling Price



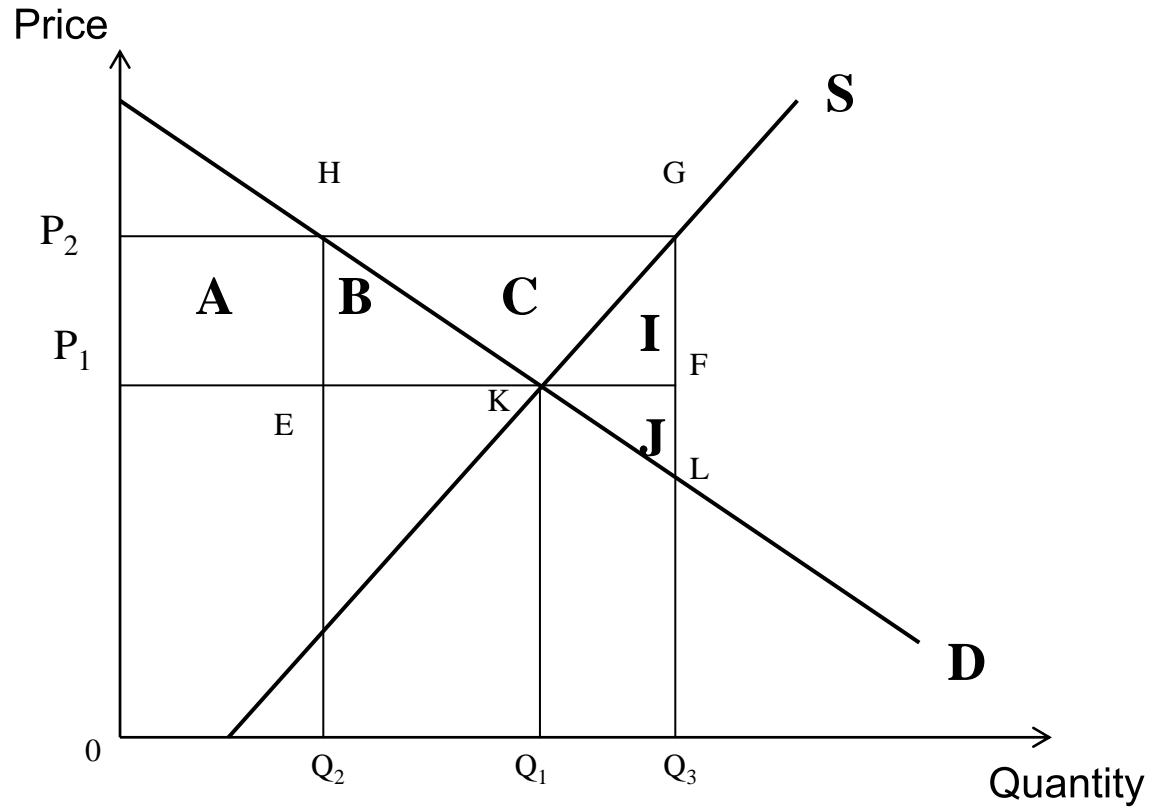
Floor Price



Effects of Pricing Policies

- **Short-run**
- **Long-run**

Price Intervention (P2)



Effects: Change in Economic Welfare

- Change in consumer surplus
- $(P_1P_2HE + EKH) = -(A + B) = -A - B$
- Change in producer surplus
 $(P_1P_2HE + EKH + KGH) = A + B + C$
- Change in Government expenditure
- $(EFGH) = -(B + C + I) = -B - C - I$
- Total welfare change = $-(B+I) =$ economic loss
- B = decline in consumer's welfare due to higher prices
- I = loss due to overproduction in such a way that marginal cost is greater than marginal benefits
- Other areas are transferred of welfare among govt., producers, consumers.

Direct short-run effects of price policies

- 1. Changes in consumer and producer prices**
- 2. Changes in quantities produced and consumed**
- 3. Changes in exports, imports, and foreign exchange earnings**
- 4. Income transfers between and among consumer and producer groups**
- 5. Government budget effects**
- 6. Price stability effects**
- 7. Changes in marketing margins and their effects on efficiency of resource allocation**

Indirect and long-run effects of price policies

- 1. Employment changes**
- 2. Incentives for capital investment**
- 3. Incentives for technical change**
- 4. Changes in health and nutrition**
- 5. Long-run changes in allocation of resources in production, storage, transportation, and processing.**

Price intervention in Practices

Types of Pricing Policies

- **Food price subsidy**
to lower price for urban consumers
- **Agricultural price support**
to raise price for farmers
- **Agricultural export tax**
to raise government revenue
- **Agricultural import tariff**
to protect domestic farm industries
- **Food distribution**
to ensure the distribution of food supply

LDCs

DCs

- Food price subsidy



-
- Agricultural price support



-
- Agricultural export tax



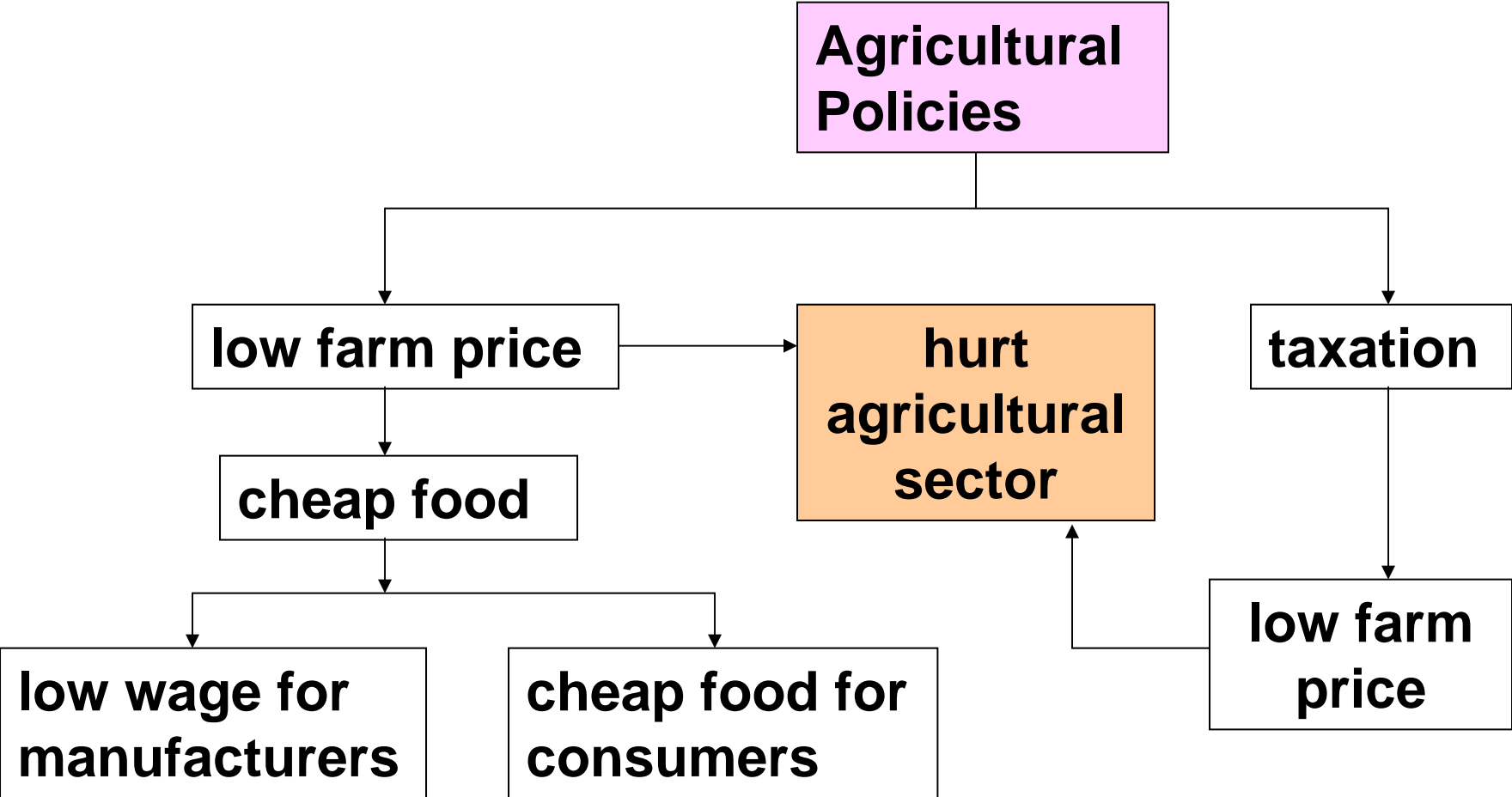
-
- Agricultural import tariff/NTB



-
- Food distribution



Developing countries



Measures/Programs

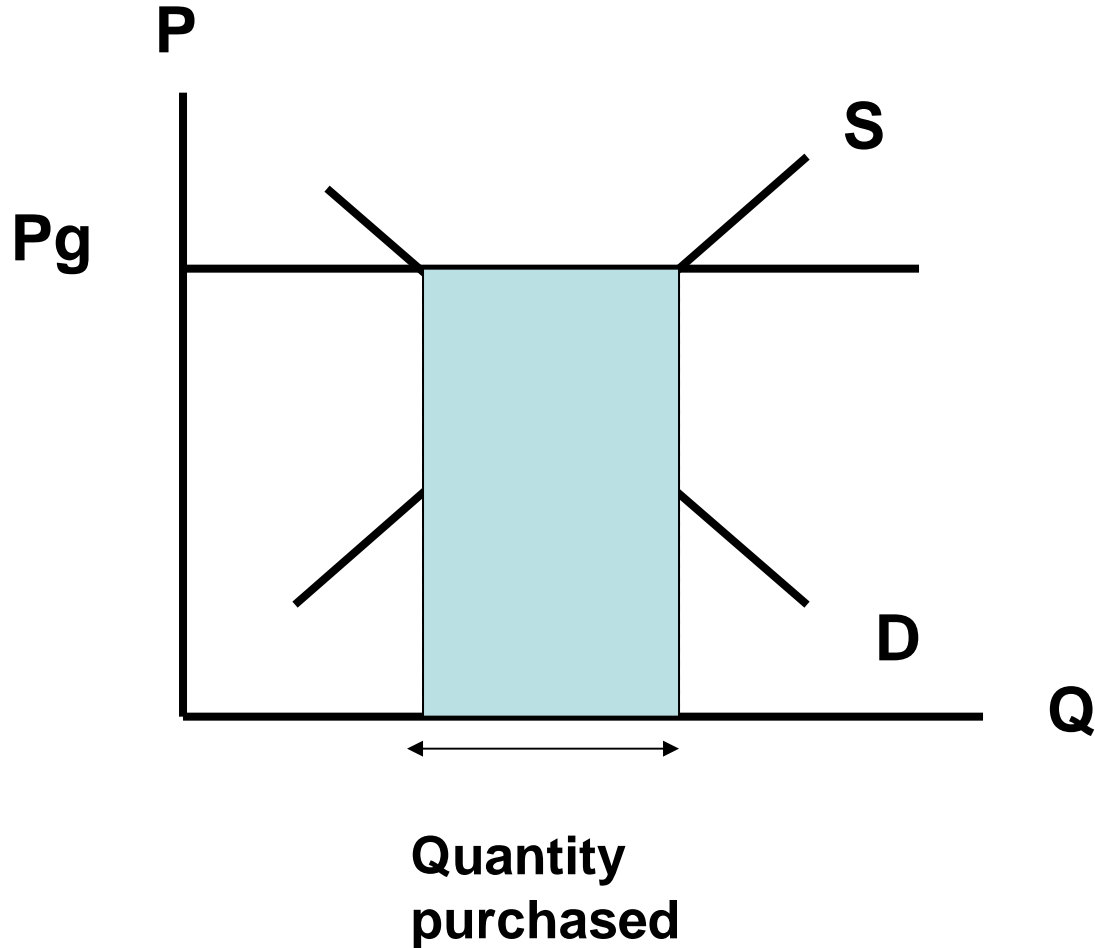
- **Subsidies**
- **Taxes**
- **Exchange rates**
- **Price-support loans and government purchases**
- **Restrictions on planted area**
- **Restrictions on quantity traded**
- **Commodity storage programs**
- **Export subsidy**

Economic effects

Depend on

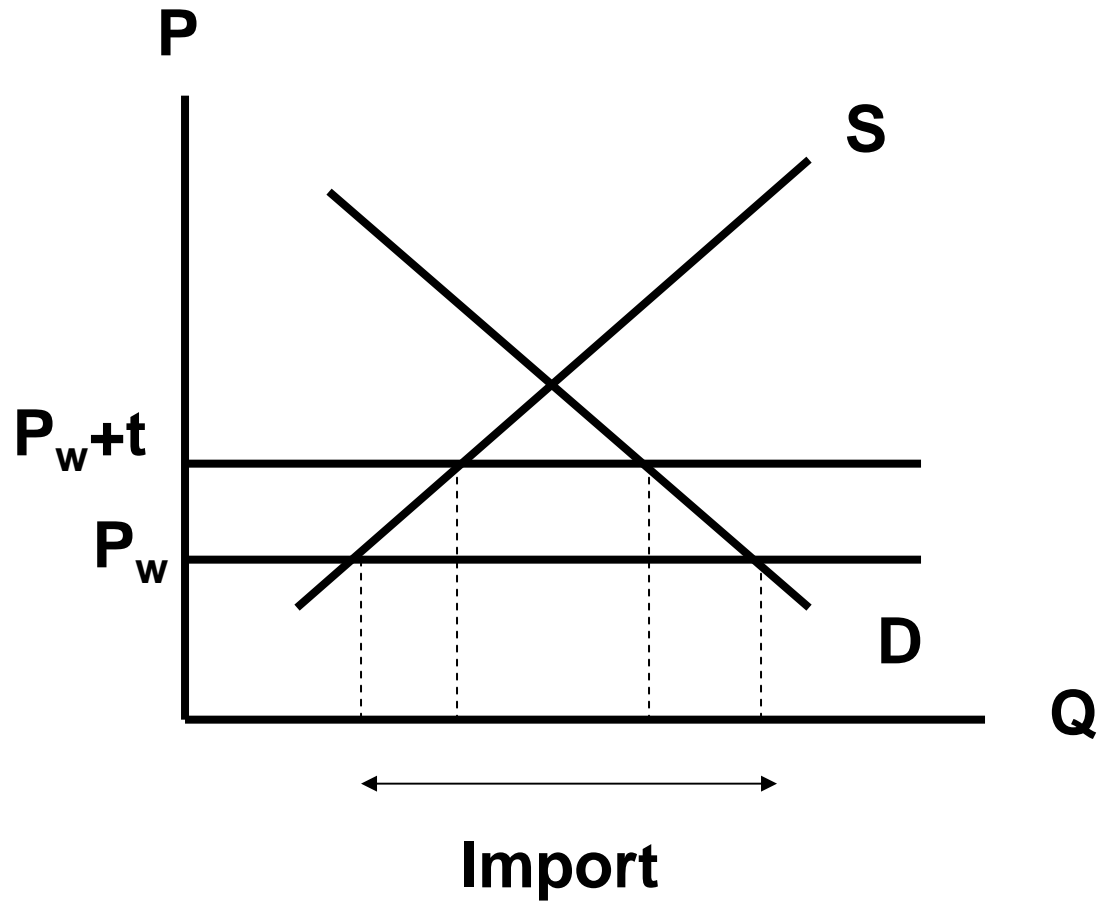
- **The level of support**
- **The method to raise prices**
- **The effectiveness of supply reduction programs**
- **The elasticities of demand and supply**

Price-support loans and government purchases

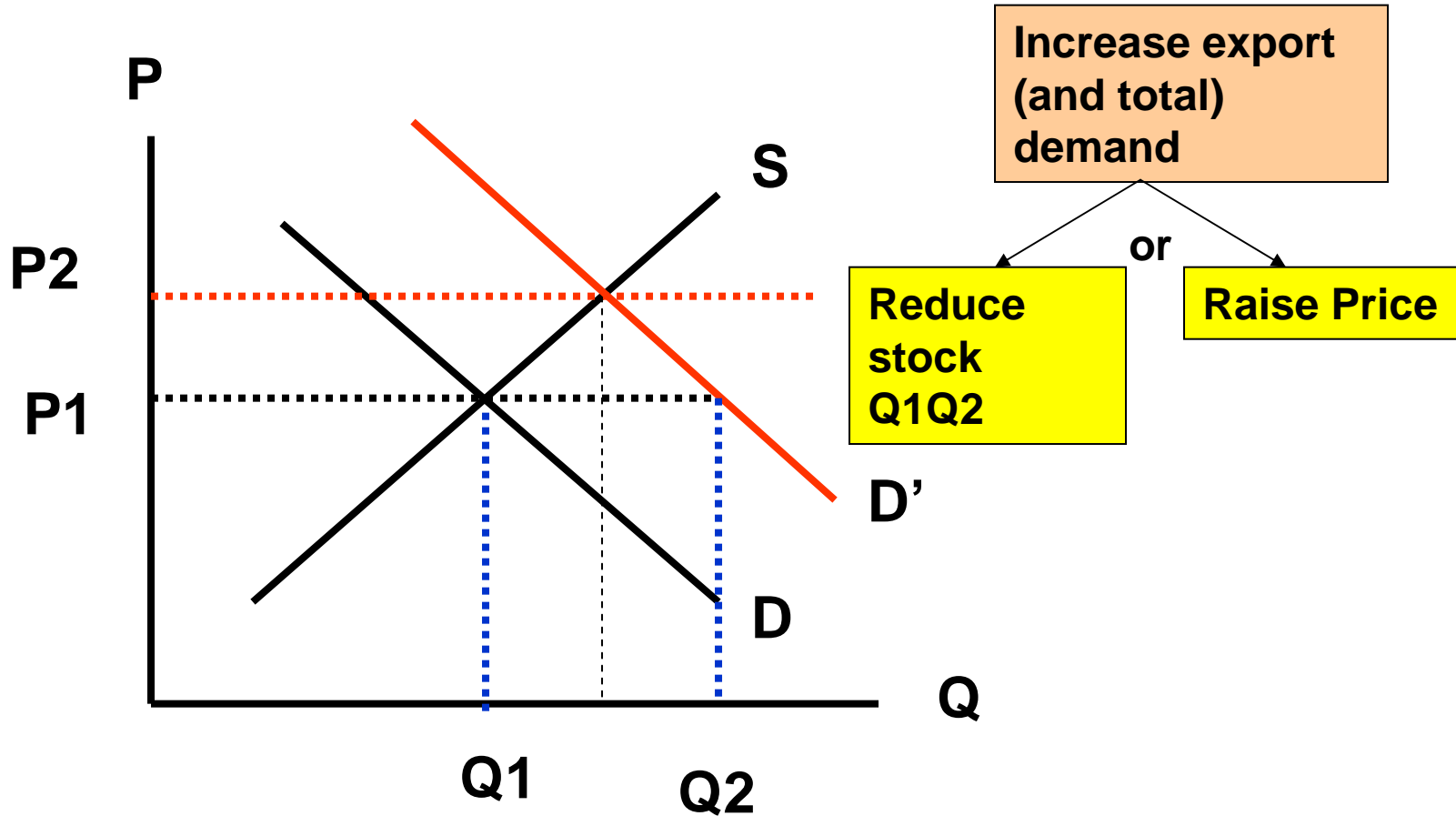


Restriction on planted area

Restrictions on quantity traded



Export Subsidy



European Union

- **Common Agricultural Policy (1962)**
- **To attain a high degree of self-sufficiency**
- **Three components**
 - **Common pricing** (target prices)
 - **Community preference** (import tariff, export subsidies)
 - **Common financing** (members are responsible to finance the CAP)

The United States

- Agricultural Act (1956), etc.
- Three basic types of programs
 - **Two-price plans** (increase revenue to farmers by restricting domestic marketing and selling the balance in the foreign market)
 - **Land retirement programs** (to restrict production by paying not to produce)
 - **Direct payment programs** (pay the difference between the target price and the market price)

Thailand

- **Rice Mortgage Program
(Rice Pledging Scheme)**
- **Rice export tax (until 1987)**
- **Rubber's Subsidy for replantation**
- **Target prices**
- **Control of production areas**
- **Input subsidies**
- **Importers purchase of domestic soybean**
- **Production quota for sugarcane**

Rice Pledging Scheme

(โครงการรับจำนำข้าวเปลือก)

- **Farmers pawn (deposit) their paddy with the privately-owned warehouses leased by the MOF**
- **The money the warehouses pay the farmers comes from the government**
- **The payment is higher than the market price (subsidy)**

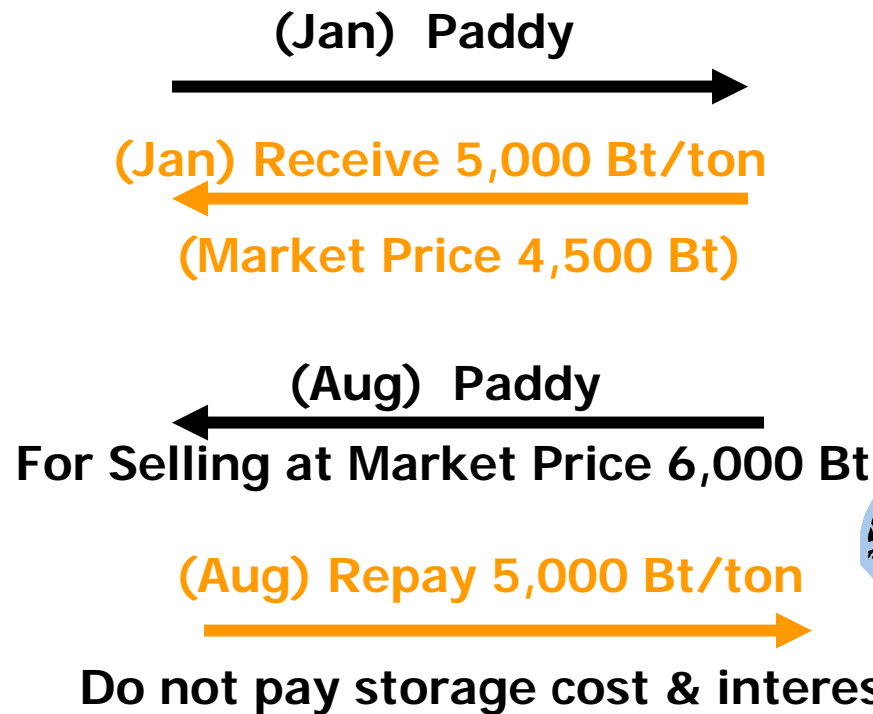
Marketing Organization for Farmers (MOF)

องค์การตลาดเพื่อเกษตรกร (อตก)

- **Under the Ministry of Commerce ?**
- **Lease 37 warehouses all around the country to store the paddy**

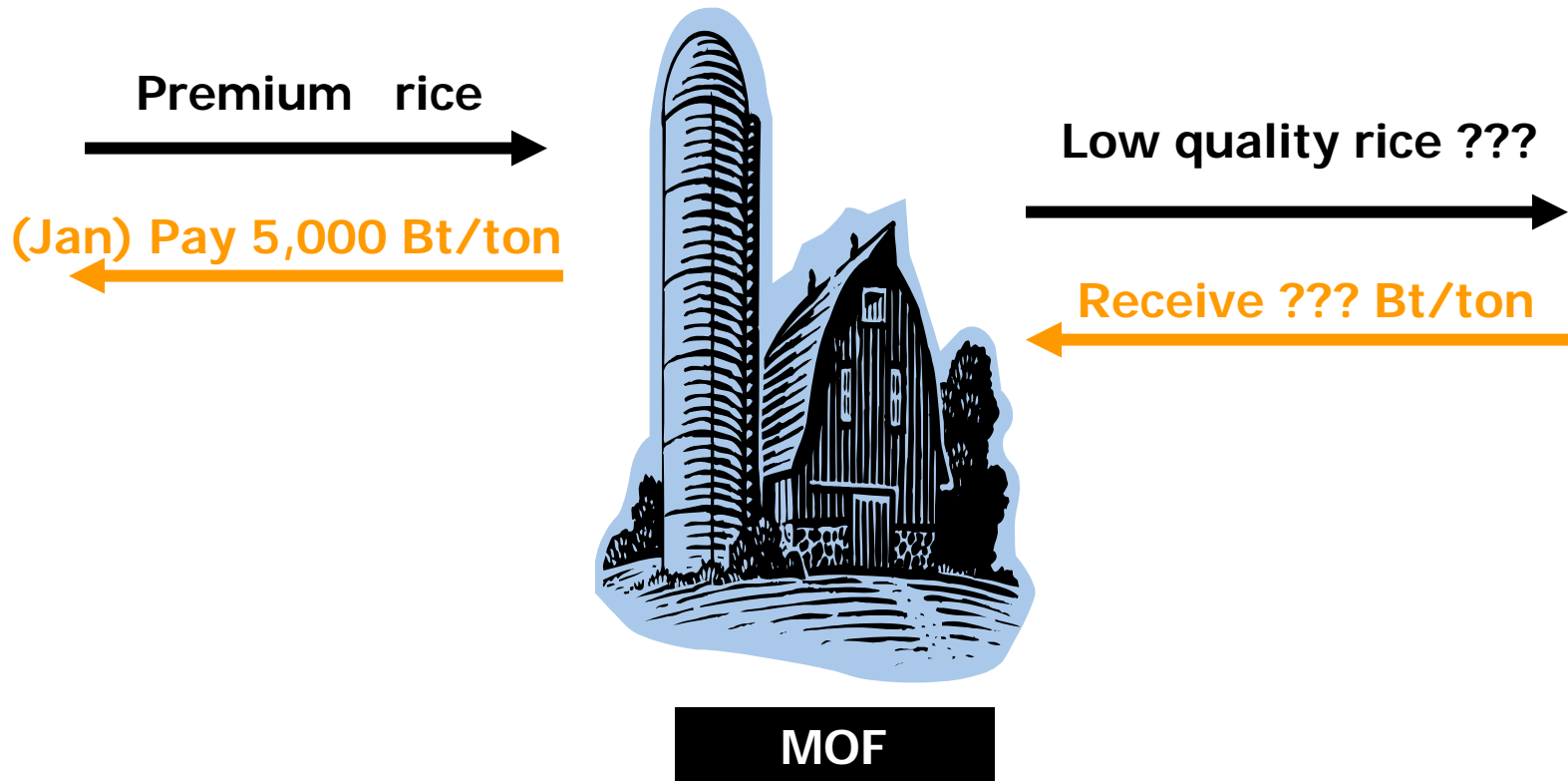
- คณะกรรมการนโยบายข้าว (กนข)
- คณะอนุกรรมการบริหารการรับจำนำข้าว (กระทรวงพาณิชย์)

Rice Pledging Scheme



In August, if the market price is 5,000 Bt or below, farmers may not redeem their rice. MOF bears the stock & storage cost & interest.

Corruption !!!



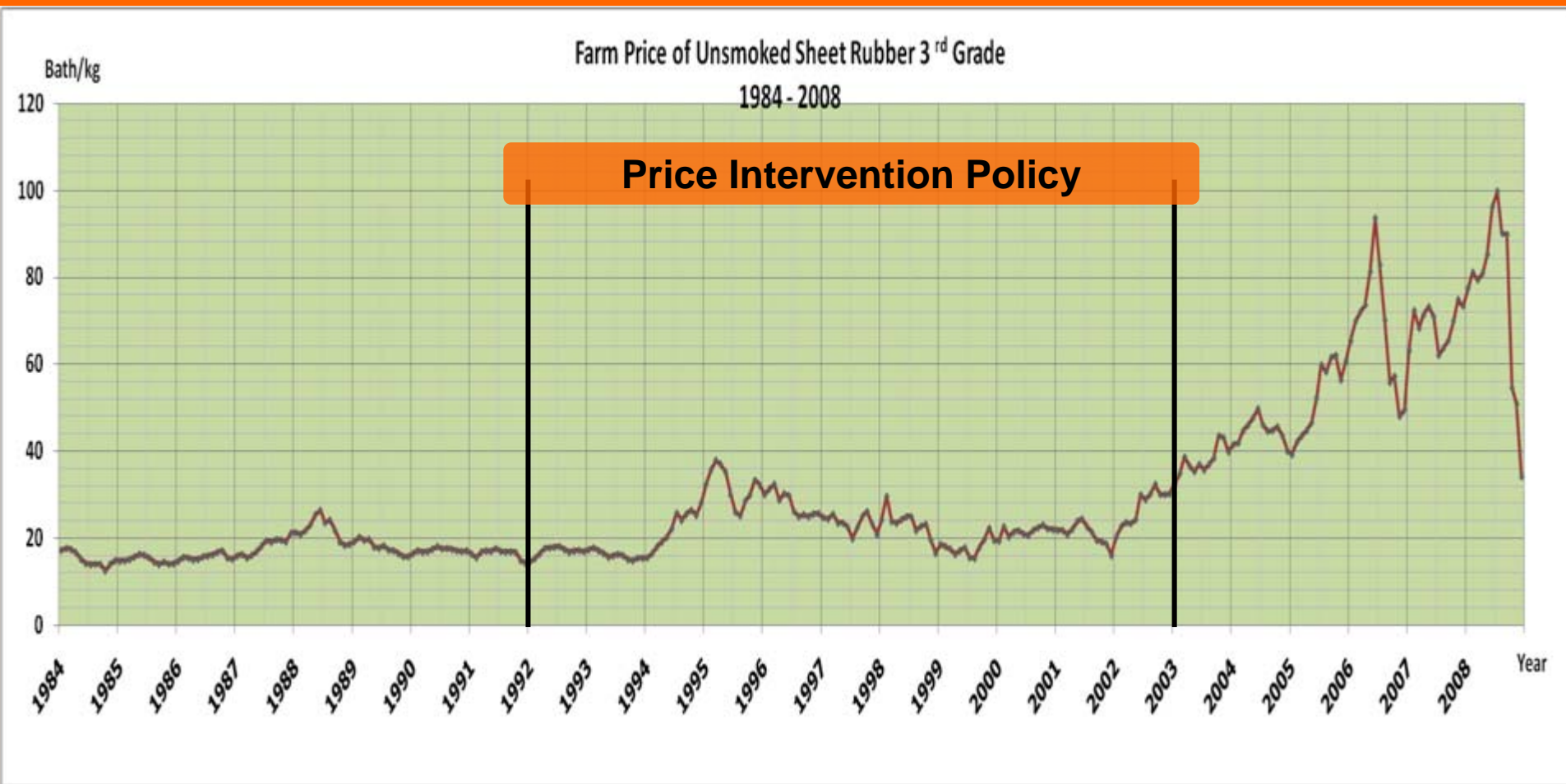
- **At the warehouses, premium-grade rice was found to have been replaced by stock of inferior quality**

RUBBER PRICE INTERVENTION: RENT-SHARING AND ECONOMIC COST

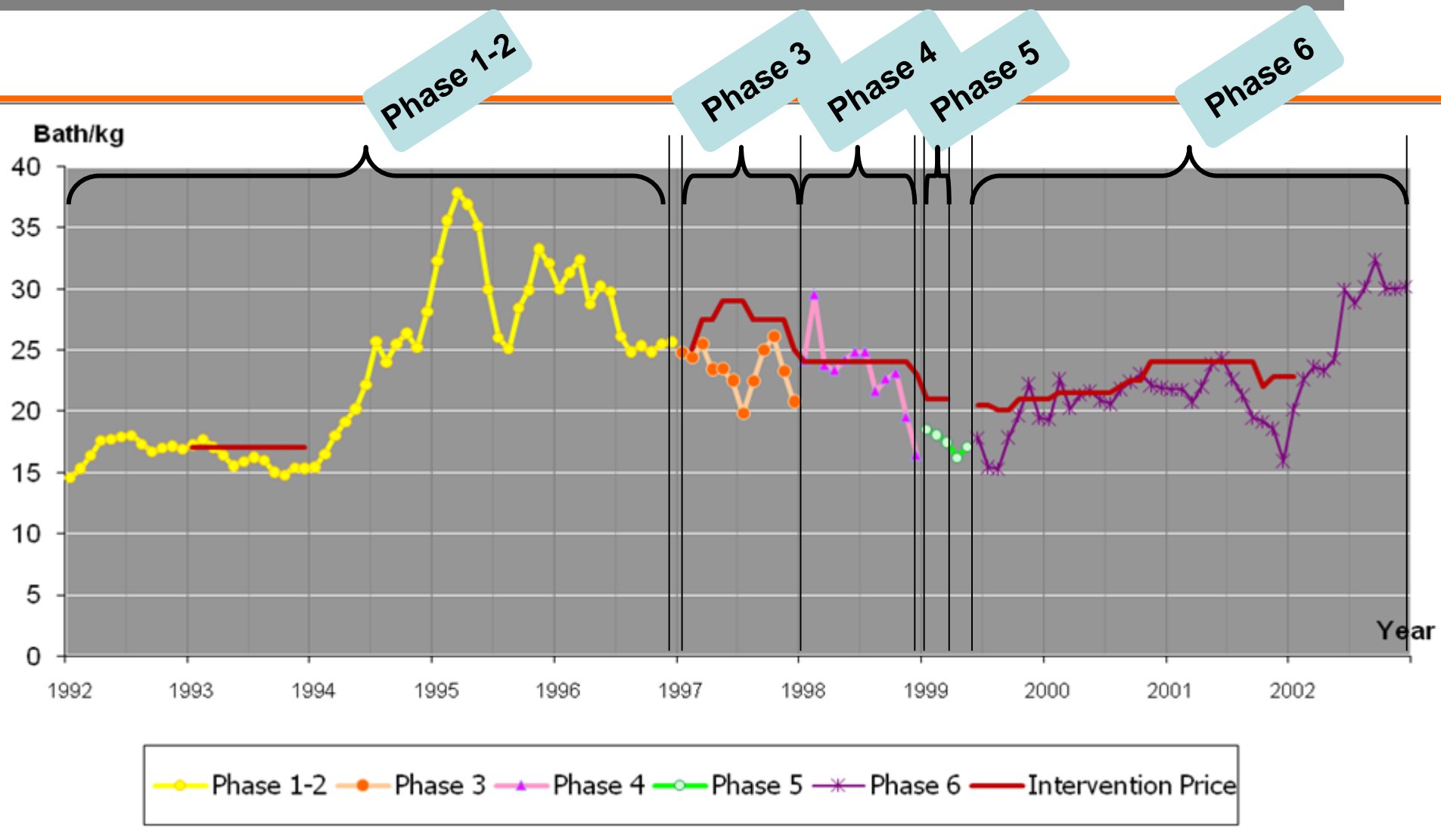
Background

Rubber Market Intervention: 1992- 2002

Farm Price of Unsmoked Sheet Rubber 3rd Grade



Farm Price of Unsmoked Sheet Rubber 3rd Grade v.s. Intervention Prices



Source: 2010 Data from Office of Agricultural Economics and Rubber Research Institute of Thailand

Activities and Operation Units

The Farmers' Assistance Measure and Policy Committee

Activity Phase	Loan Borrowing	Rubber Purchasing	Processing (Smoking)	Stocking (Warehouse)	Selling Stocks	Accounting and Auditing	Farm Registration
Phase 1 – 2 (8 Jan 92 – 96)	REO	REO (+ORRAF)	REO (+Private factories)	REO (+Private warehouse)	REO	REO	-
Phase 3 (4 Feb 97 – Dec 97)	REO	REO	REO (+Private fact.)	REO (Private)	REO	REO	-
		ORRAF					
		Local Committee					
Phase 4 (21 Jan 98 – Dec 98)	REO	ORRAF	ORRAF (+Private fact.)	ORRAF (+RRIT +Private)	REO (remaining stock)	REO	-
					ORRAF (new stock)	ORRAF	52

Activities and Operation Units

Activity Phase	Loan Borrowing	Rubber Purchasing	Processing (Smoking)	Stocking (Warehouse)	Selling Stocks	Accounting and Auditing	Farm Registration
Phase 5 (11 Jan 99 – 31 Mar 99)	REO	ORRAF	ORRAF & CPD (+ Private Fect.)	RRIT (+ORRAF +Private)	MOC+ MOAC	CAD & ORRAF + Province Office of Cooperatives	DOAE
		CPD (+ District Office of Cooperatives)					
		CPD Registered Farmer Groups					
Phase 6 (16 June 99 – Dec 02)	REO	CPD & DOAE & MOAC Registered Farmer Groups (+ORRAF)	REO (+Private Fact.)	RRIT (+ORRAF +Private)	MOC + REO	CAD & REO (+Private)	DOAE
		Registered Farmer Groups					

Who gain, who loss ?

Amount of Rubber Purchased with Total Product

PHASE	Amount of Rubber Purchased* (Tons of sheet rubber)	YEAR	Total Amount of Rubber Production** (Tons)	Percentage of Rubber Purchased in Total Production (%)
Phase 1 – 2 (Jan 92 – 96)	262,376.40	1992 - 1996	8,011,748	3.275
Phase 3 (Feb 97 – Dec 97)	168,606.50	1997	1,890,072	8.921
Phase 4 (Jan 98 – Dec 98)	156,696.00	1998	1,943,124	8.064
Phase 5 (Jan 99 – Mar 99)	81,817.00	Jan 99 - Mar 99	n/a	n/a
Phase 6 (Jun 99 – Dec 02)	682,044.00	1999 - 2002	9,485,048	7.191
Total	1,351,539.90	1992 - 1996	21,329,992	6.336

Note : * Data from REO. **Data from OAE.

Outcome of the Rubber Price Intervention Program

Amount of Rubber Purchased		1,351,539.90* Tons of sheet rubber
Average intervention Price	23.94* Baht/kg	
Revenue	22.14 Baht/kg	29,927.97* Million Baht
Expense	34.00 Baht/kg	45,957.44* Million Baht
Financial Loss	11.86 Baht/kg	16,019.47* Million Baht
<i>For operation</i>	5.62	7,599.45*
<i>For interest</i>	6.24	8,434.89*

P.Suzuki 2011
 Note : * Data from REO. Other are approximated by the author.

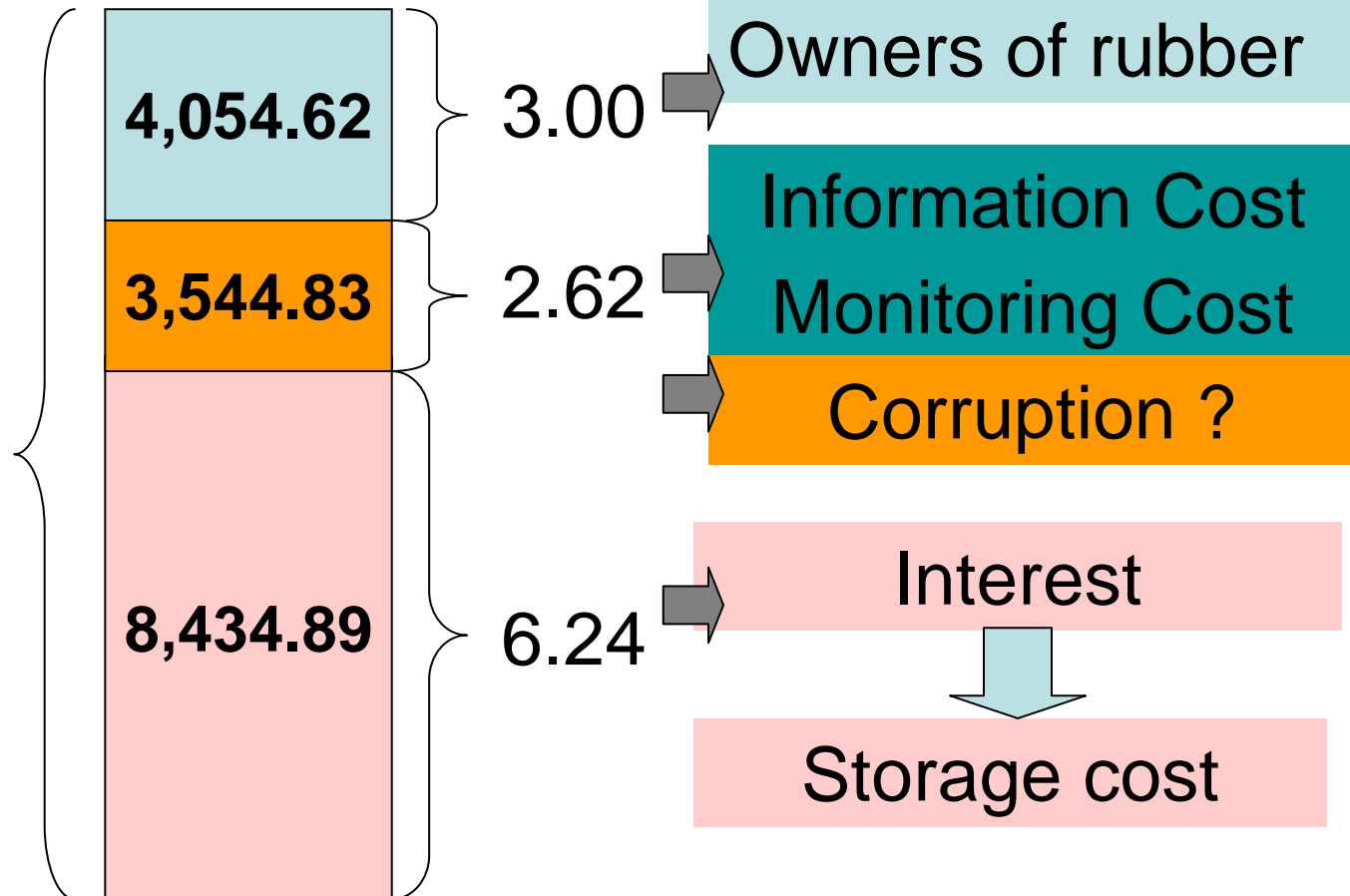
Financial Loss

Registration, Tag,
Local committee, etc.

Unit cost
higher
than the
market
price

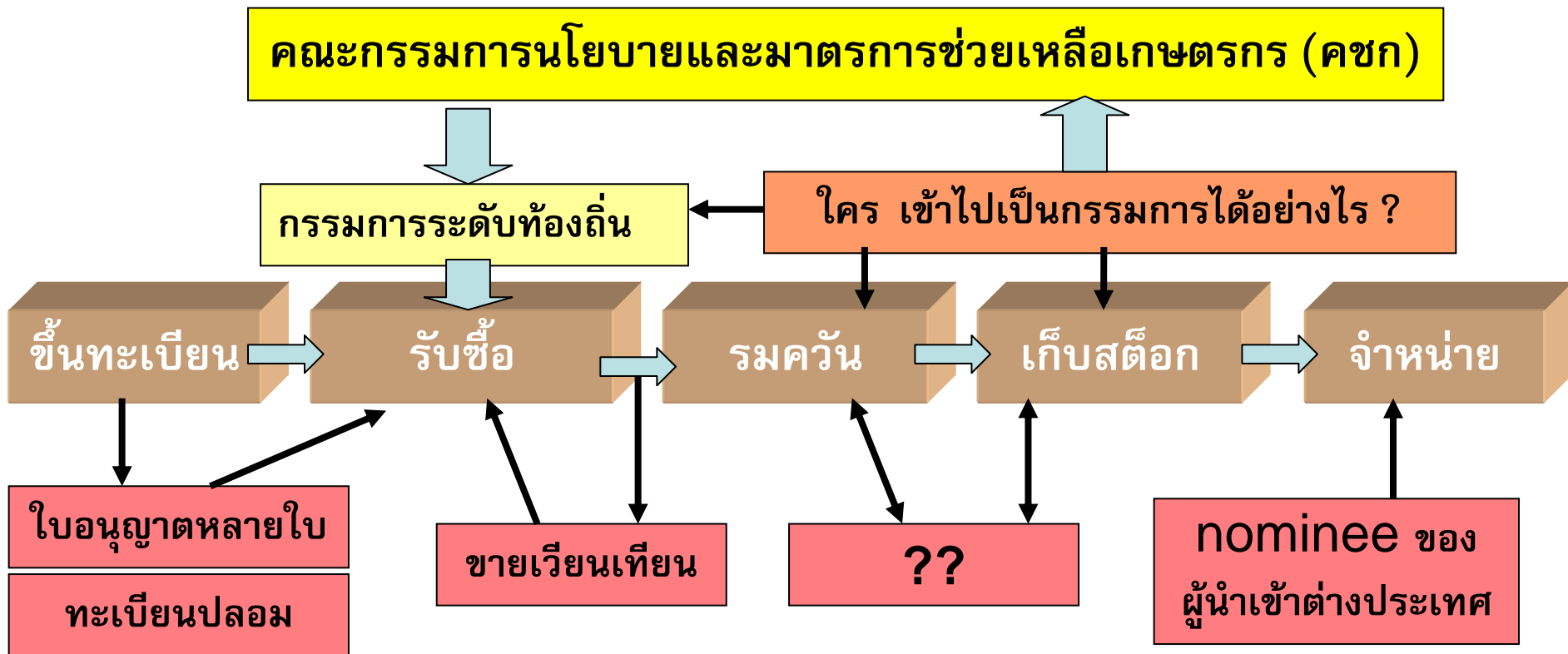
**11.86
Bt / kg.**

16,019.47 m.Bt



ขั้นตอนการดำเนินโครงการแทรกแซงตลาดยางกับการทุจริต

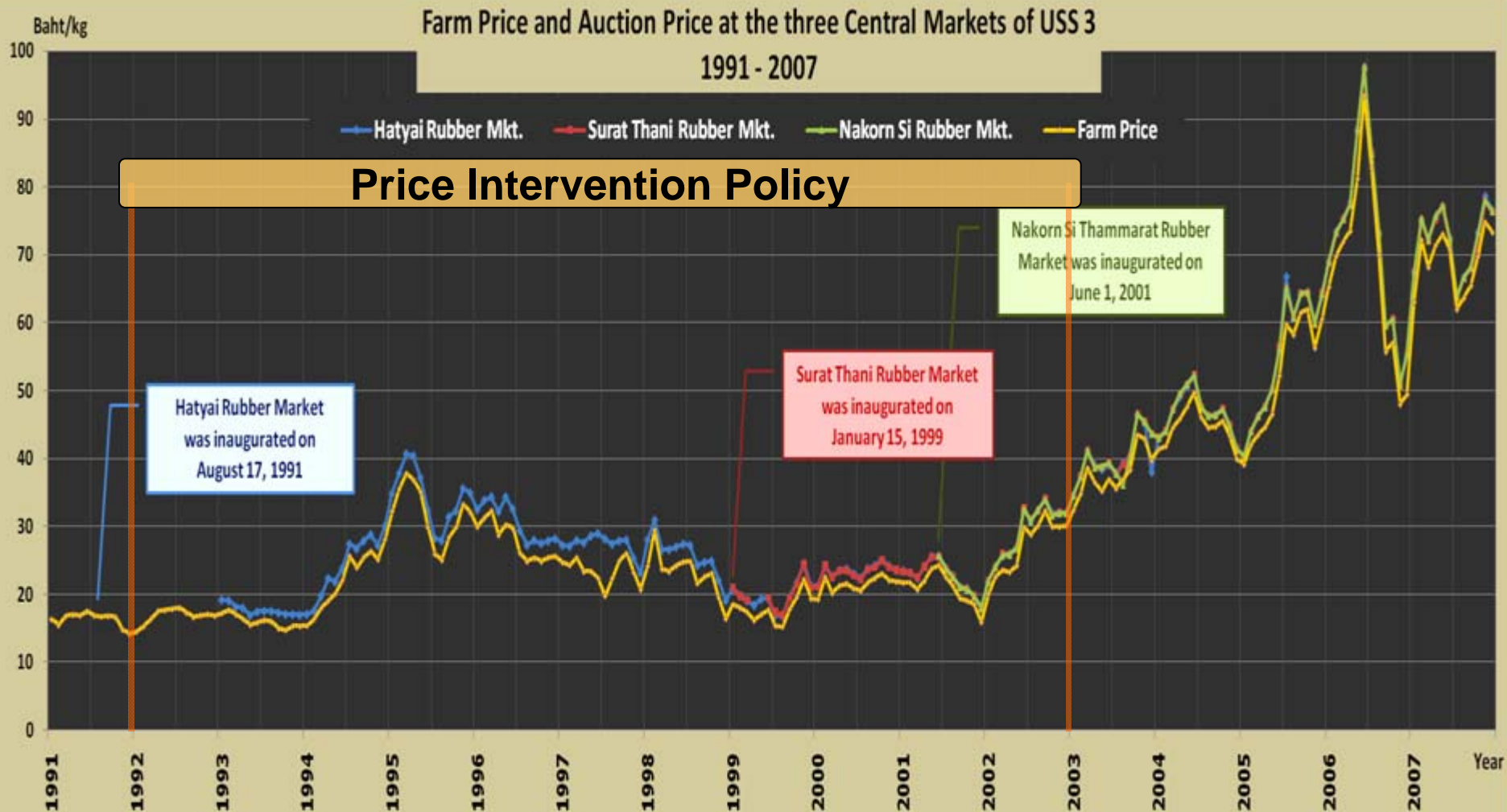
- ทุจริตโดยทุกฝ่าย ! ?



Policy Alternative

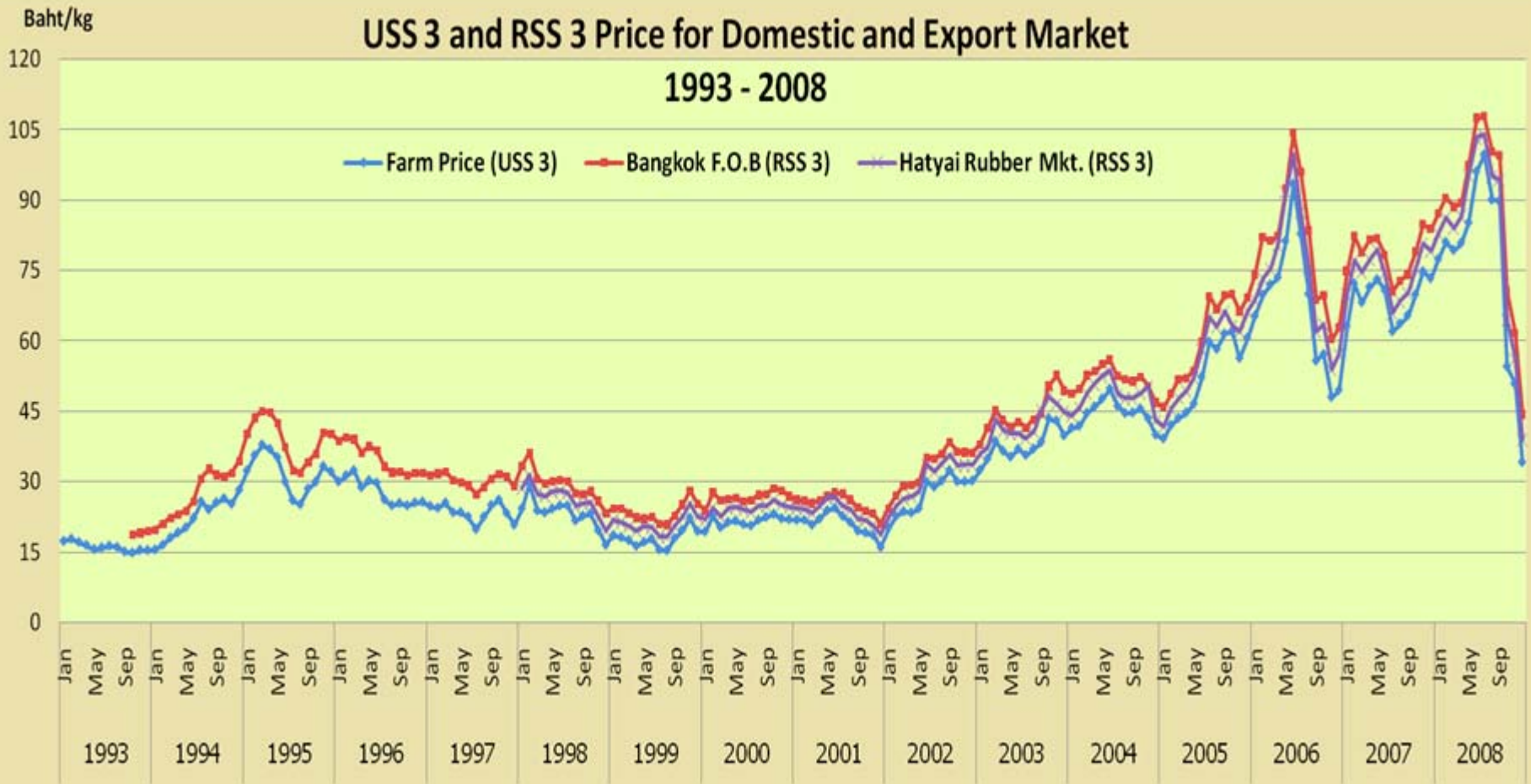
Central Markets

Farm Price of Unsmoked Sheet Rubber 3rd Grade and Reference Prices at the three Central Markets



Source: 2010 Data from Office of Agricultural Economics and Rubber Research Institute of Thailand

Unsmoked Sheet 3rd Grade and Ribbed Smoked Sheet 3rd Grade Price for Domestic and Export Market



Source: 2010 Data from Office of Agricultural Economics and Rubber Research Institute of Thailand

Policy Alternative

Future Market