

TRADE BARRIERS IN FOREST INDUSTRY BETWEEN MALAYSIA AND EUROPE

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Issues

- A growing trend at international market to impose non-tariff barriers on imported products due to the environmental concerns.
- The growing complexity and diversity of environmental regulation seems create difficulties for developing countries and may reduce the market access as well as comparative advantage of their products in the export markets.

Objectives

Identify the trade barriers facing by Malaysian producer in exporting the wooden products to Europe.

- Government regulations or,
- Consumer behavior

The question arise:

Can Malaysian wooden industry adapt and react to the trade barriers and adjust them into competitive advantage?

Framework of study

Malaysia



Supply side of wood

Europe



Demand side of wood



**Measure the export
performance of Malaysian
wood products**

**Timber trade
between Malaysia
and Europe**

**Explore the issues
and challenges
facing by Malaysian
wood producers and
exporters**

**Analyze the consumer
behavior in purchasing
wood products and
asses the willingness to
pay for SFM attributes**

First Part: Supply Side of Wood

Objective:

- Overview the evolution of Malaysian wooden products and export to the world and Europe
- Analyse the issues and challenges facing by Malaysian exporters to enter European market

Data:

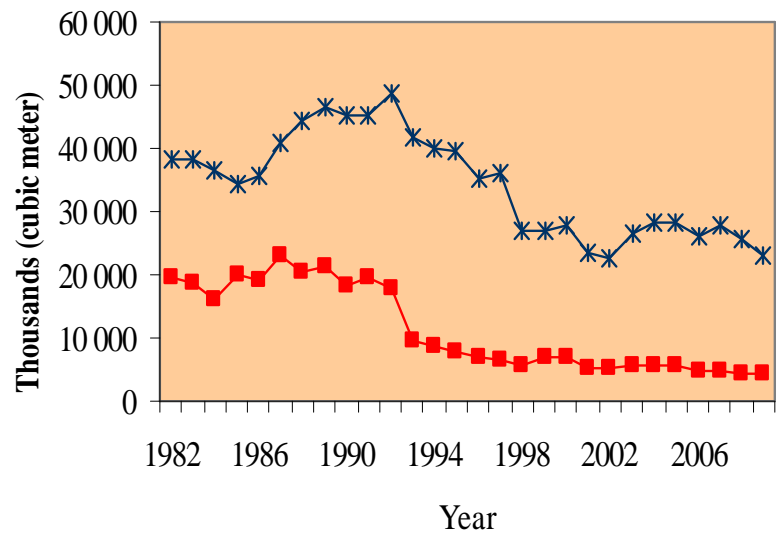
- 1982-2009
- Specific: value (in MYR and USD) and volume of selected wooden products
- Sources of data: United Nations Commodity Trade Statistics, International Tropical Timber Organization, Forestry Department of Semenanjung Malaysia, Maskayu Monthly Timber Bulletin

Method:

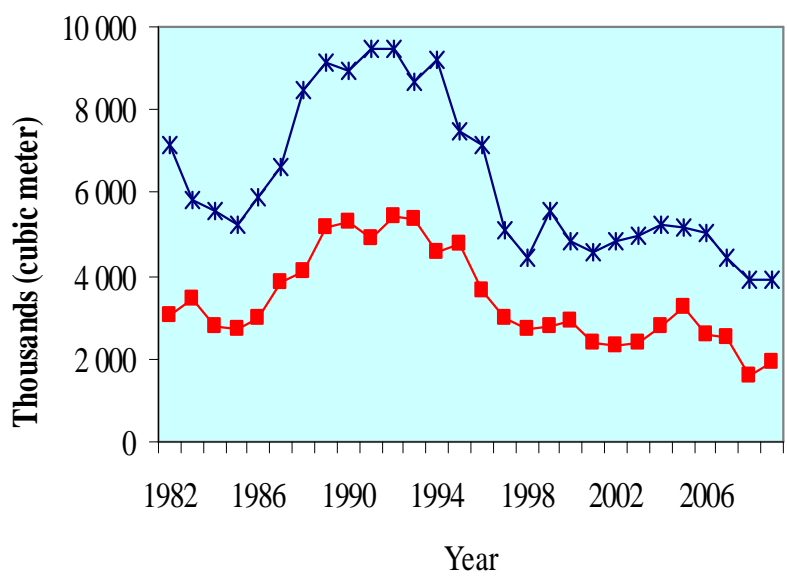
Trend analysis using secondary data and library research



Malaysia

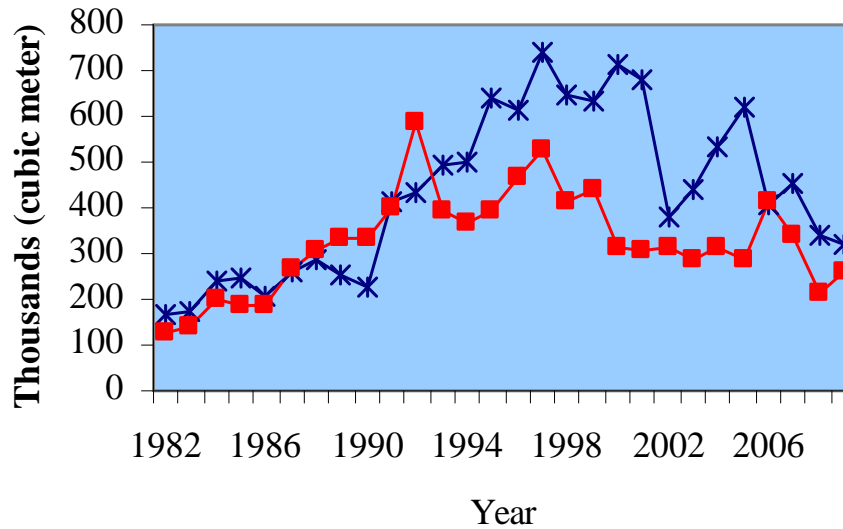


* Log production ■ Log export

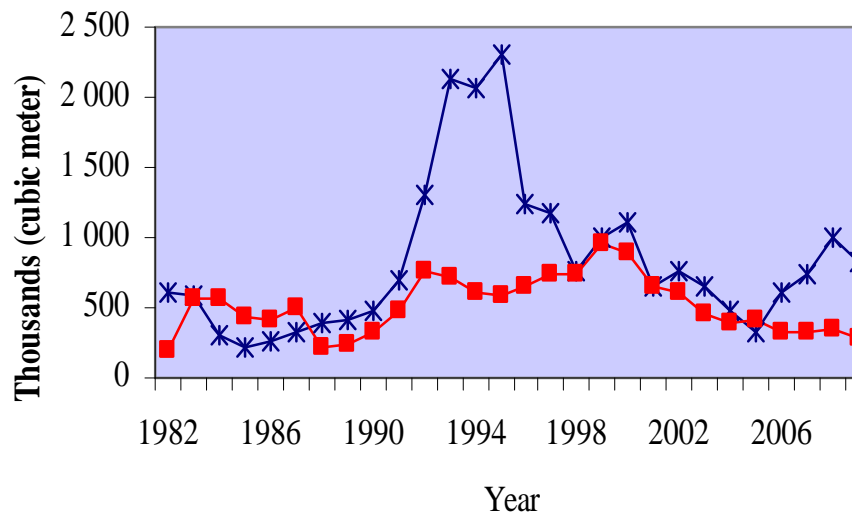


* Sawn timber production ■ Sawntimber export



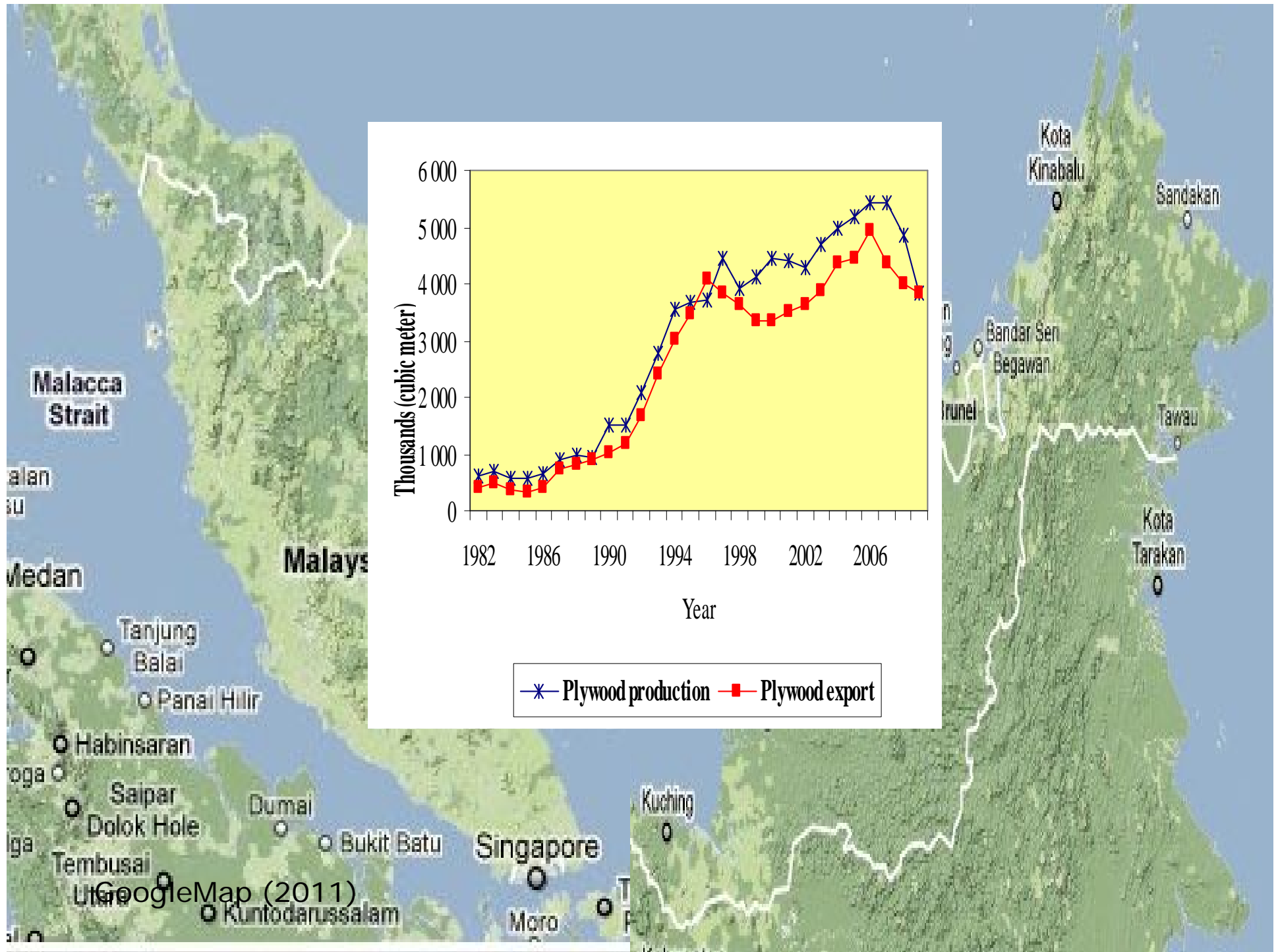
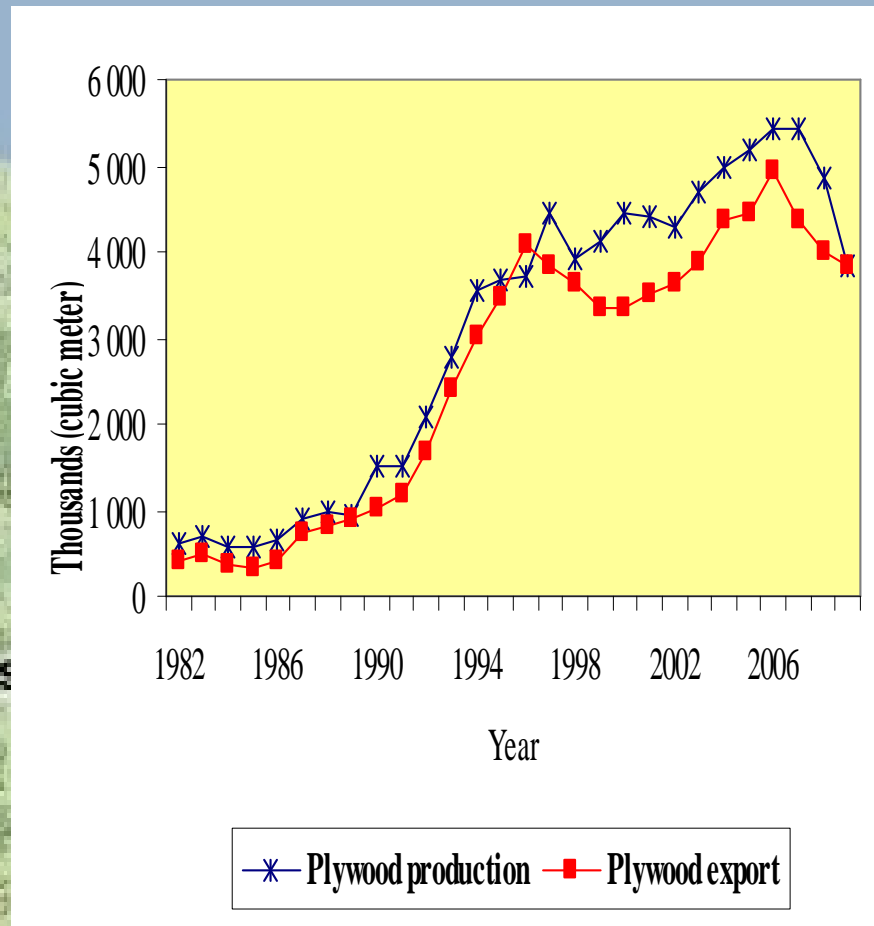


—*— Moulding production —■— Moulding export



—*— Veneer production —■— Veneer export





**13% of Malaysian
total export**

**50% of Malaysian
total export**

**Europe: Second
largest export
destination**

**Asia: Major
export
destination**

**North
America**

Europe

**Atlantic
Ocean**

Africa

Malaysia

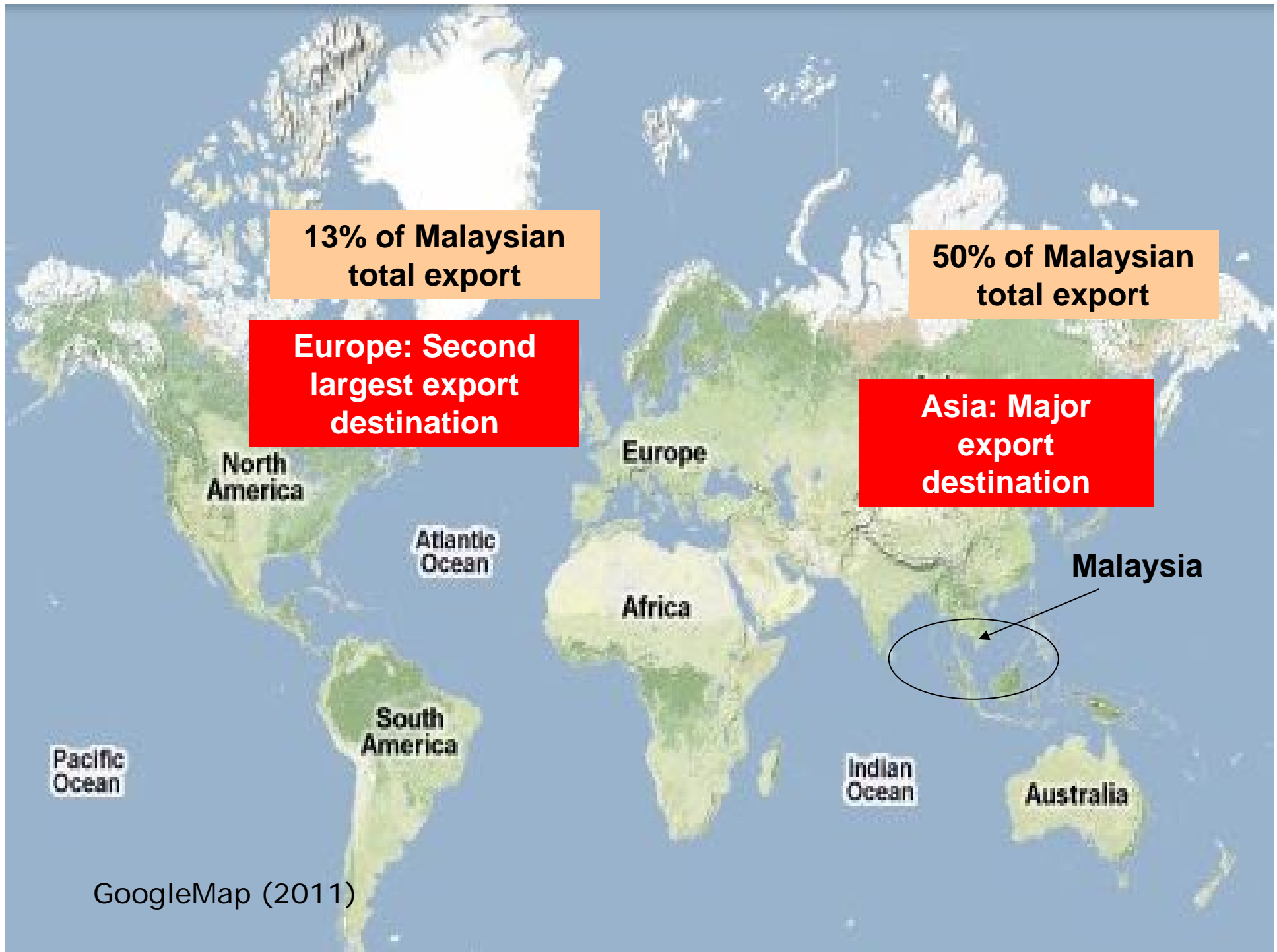
**Pacific
Ocean**

**South
America**

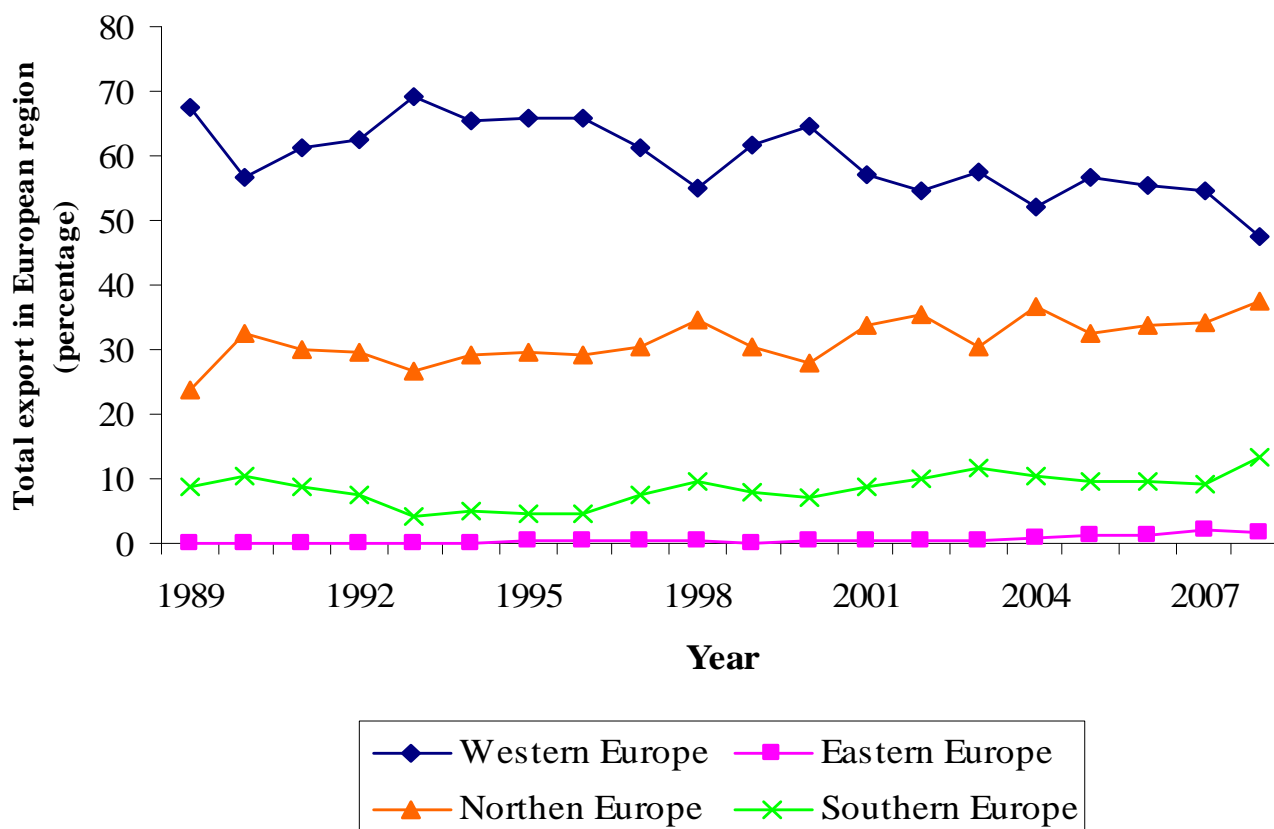
**Indian
Ocean**

Australia

GoogleMap (2011)



Exports of Malaysian wooden products to European subregions 1989- 2008



Western Europe has a dominant market share established about 50 percent (on average) of the total Malaysian timber export in real term (1970=100) from 1989 to 2008



United Kingdom

Netherlands

Germany

Switzerland

France

Austria

GoogleMap (2011)

Issues and Challenges Influencing Malaysian Timber Trade in Europe

Shortage of Raw Materials Supply

- Reduction in annual coupes due to the commitment for Sustainable Forest Management

The emergence of other competing producers

- **Chinese:** low-cost wooden products
- **Brazilian:** national certification scheme as early as 1991

Rising trade barriers

- **Regulations/negotiations:** Prevention of using borates for wooden products, CE marking, Forest Law Enforcement Governance and Trade (FLEGT), policies on green consumption .
- **Consumer behavior:** sustainability of forest

Second Part: International Trade

Objective:

- Analyze a comparative advantage of Malaysian wooden products in Europe

Data:

1999-2006 (8 year)

Specific: Using Trade value data (USD)

Source: United Nations Commodity Trade Statistics

Method:

Balassa index (1965)- Revealed comparative advantage

- 14 types of wood products classified under Harmonisation System code
- 15 European countries based on their consistent good performance of import and export of wooden products from Malaysia

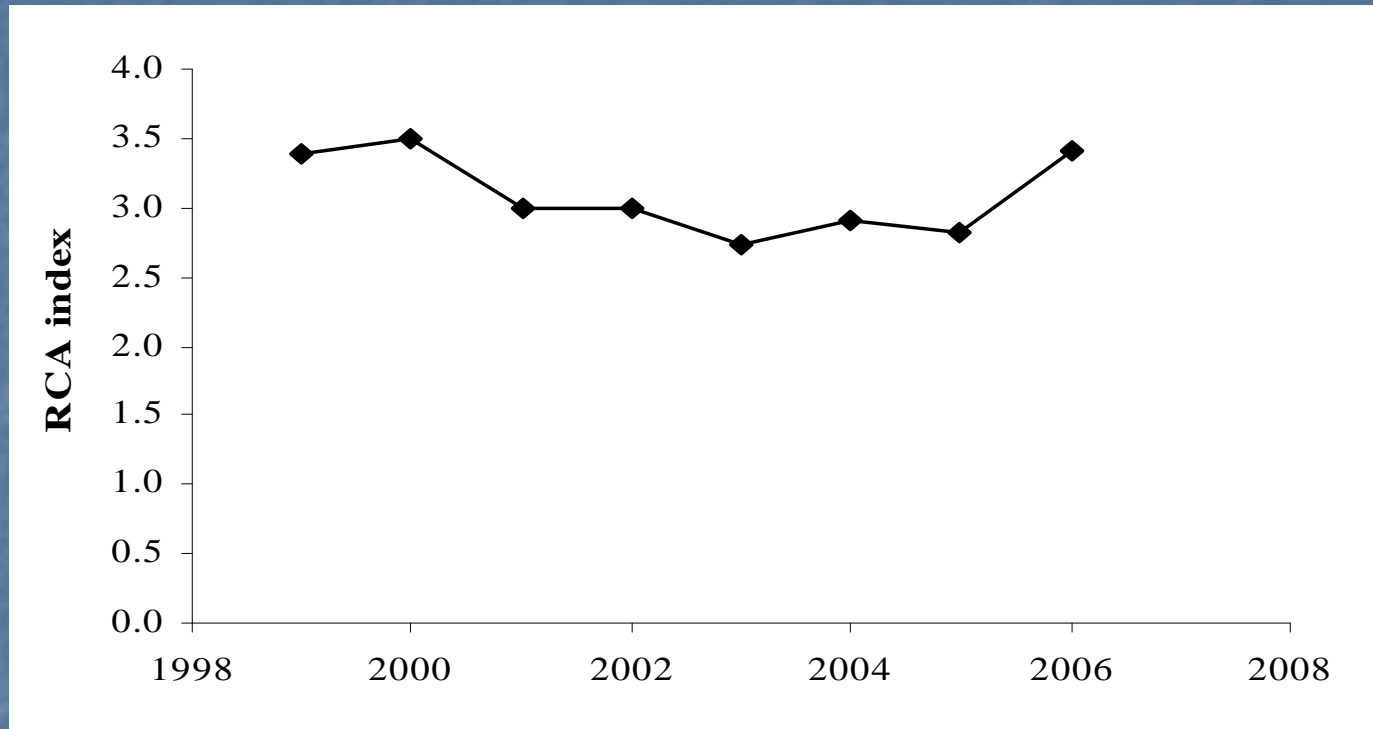
Balassa index

- $$RCA_{jkt} = \frac{(X_{jkt}/X_{jKt})}{(XW_{kt}/XWKt)}$$

Where,

- j, k and t denote a country, good or commodity and time period respectively. K denotes the total of all exports from country j or the world (W)
- the ratio of a country's share in world exports of a given industry divided by its share of overall world trade (Moenius, 2006)
- If RCA indices > 1, = the sector or product has a comparative advantage in the production of the good,
- if RCA indices < 1, = comparative disadvantage
- **Comparative advantage**= The ability to produce a good at lower cost, relative to other goods, compared to another country

Revealed comparative advantage (RCA) indices for Malaysian wooden products in the European market (1999-2006)



Calculated based on data from UN Commodity Trade Statistics (2009)

On average, Malaysia has advantage to export wooden products to Europe

Comparative Advantage

- Sawn wood
- Mouldings
- Plywood
- Builders' joinery and carpentry
- Charcoal

- Veneer

Comparative Disadvantage

- Fuel wood
- Logs
- Densified wood
- Wooden frames
- Wooden cases
- Wooden tableware
- Wooden ornaments
- Wooden articles

Comparative Advantage

Mechanized mass market products

- **Economies of scale** with standard mechanized processes
- **Traded in a large volume** (Being used for end products such as furniture, flooring, etc)
- Sold by **specific use** such as for construction industry, buildings, home improvements
- Starting 2006 EU's **reduction of import duty** on plywood from 7 percent to 3.5 percent

Comparative Disadvantage

Niche Market Products

- Mainly home interior accessories and small items- **need know how techniques and labour specialization**
- Products were **traded in low quantities and value**
- Override by the **Chinese labor cost and human skills**
- **Laws and regulations** – logs severely regulated in Europe and Peninsular Malaysia also banned the export of logs

Third part: Demand side of wood – Case study of France, specific for wood flooring product

France:

One of the major export destination of Malaysian wooden products

Wood flooring:

- Malaysia has a high comparative advantage in the mass mechanized products; which flooring considered part of them
- Wood flooring industry in France is growing and in relatively good shape among the European markets (Doucet et al., 2003)

Objective:

How social, environmental and economic aspects do motivate French consumers in purchasing wood products.

Data:

- Conducted an internet survey
- Randomly selected sample: 12500
- Turned up: 445; only 329 (2.63%) were completed and appropriated to analyse

Methods:

- Designing the survey question: choice experiment approach
- Econometric analysis of data: Conditional logit model

Methodologies

- **Choice experiment approach (Survey questions)**
 - ✓ Provides information on the **willingness of the respondents to make trade-offs between the individual attributes and their likely responses to different product circumstances**” (Bennett and Blamey, 2001)
 - ✓ CE was designed with the **combination of theoretical foundation** from:
 - **Lancaster’s** (1966): individual maximize utility from a bundle of attributes
 - **Random Utility Theory** (McFadden, 1974): individual choose the best option to maximize their utility

- **Conditional logit model (Data analysis)**
 - ✓ The most appropriate model of choice behaviour.
 - ✓ Helps to answer how the choice has been made by the consumers based upon attributes of the products

✓ **Set up the questionnaire:**

1. Identifying the attributes – 5 attributes
2. Factorial design – to choose possible combinations of choice set

Attributes	Levels
Ecology	Presence of reservoirs (1) Absence of reservoirs (0)
Sociology	Forest path development (1) Inaccessibility to forest (0)
Landscape	More than 3 different species (1) Monoculture (0)
Fair trade	Compliance with working conditions (1) Working conditions not mentioned (0)
Origin of the wood	France (1) Origin not indicated (0)

The **survey** was composed into **4 parts**:

1. General attitudes of consumers towards the environmental preservation.
2. Hypothetical purchase decisions of wood flooring to respondents. Each respondent had to answer to eight different choice sets with combination of different attributes and prices
3. Respondents' knowledge on eco-certification and forest labels; FSC and PEFC
4. Demographic and socio economic information

Results from the simple conditional logit model

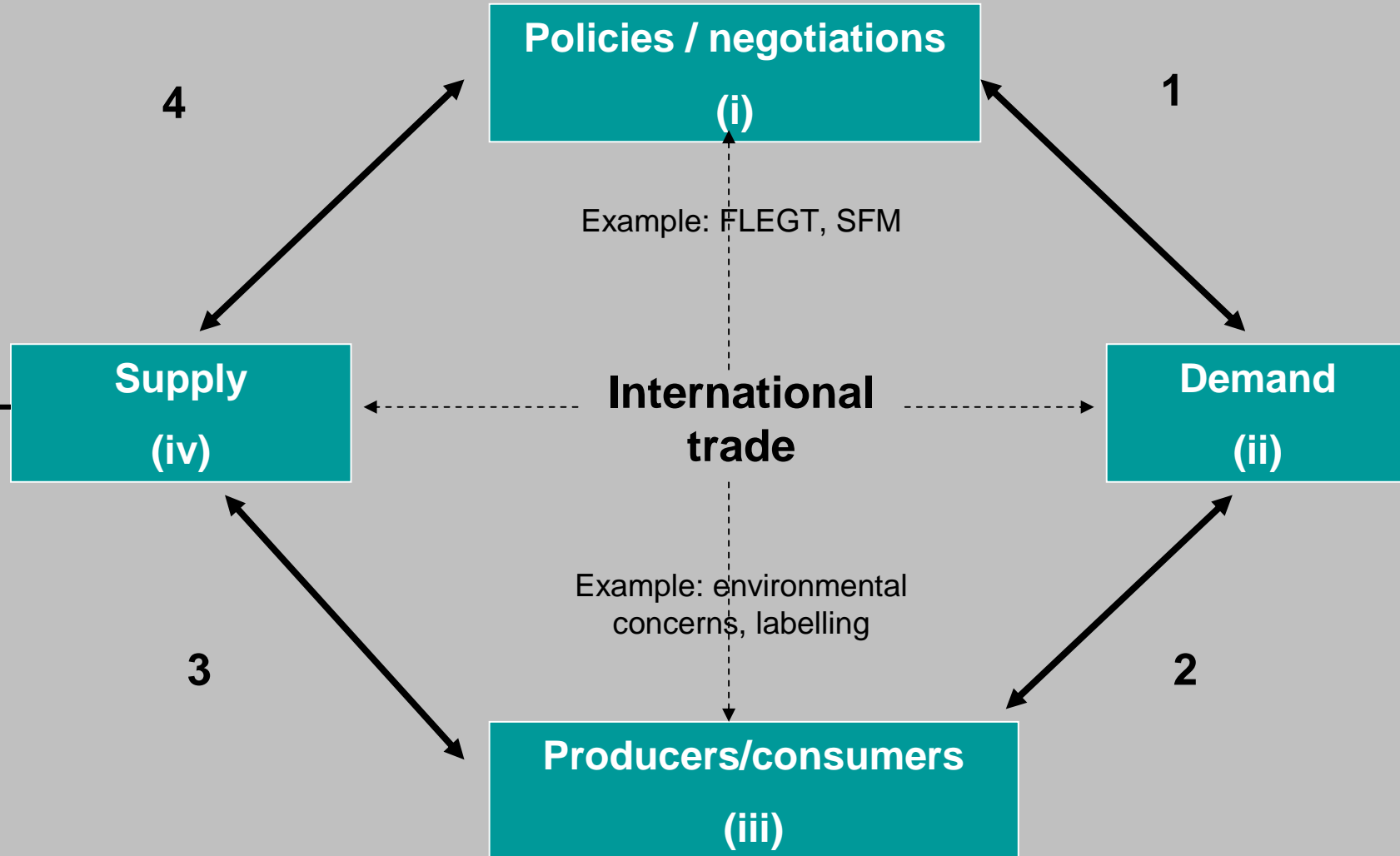
Variable	Coeff (B)	Std. Error	t-value
Ecology (β_1)	0.5827	0.6295	9.257***
Sociology (β_2)	0.6373	0.6320	10.083***
Landscape (β_3)	0.5795	0.6293	9.208***
Fair trade (β_4)	1.2453	0.6738	18.481***
French origin (β_5)	0.9709	0.6471	15.005***
Price (β_6)	-0.1160	0.5470	-21.207***
Marginal value for attributes; $-B_{ij}/B_{ik}=p$			
Ecology	5.0233	0.4631	10.846***
Sociology	5.4938	0.4594	11.958***
Landscape	4.9957	0.4634	10.781***
Fair trade	10.7348	0.4539	23.651***
French origin	8.3701	0.4596	18.213***
Adjusted Pseudo-R ²	0.1329		



Global Findings of This Dissertation

Systemic diagram of timber trade between Malaysia and Europe

MACRO PERSPECTIVES



MICRO PERSPECTIVES

Macroeconomics perspectives

Europe

- Developed countries place a **high importance on the environment** → put higher environmental standards
- Designed the policy on:
 - ✓ Sustainable Consumption and Production (SCP)
 - ✓ Sustainable Industrial Policy (SIP)
- To create mass movement in green consumption

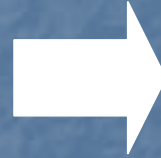
Malaysia

- Developing countries claim this may **lead to higher amounts of prohibitive cost** --> disadvantage them
- The introduction of
 - ✓ European policies on green consumption
 - ✓ pressure on legality of timber products
- > **Trade barriers** for the Malaysian forest industry

Microeconomic perspectives

Europe

- **Consumers:** issues of **certification and sustainable management** are the centre attributes of the forest products
- **Willing to pay higher for fair trade and sustainable forest management attributes**



Malaysia

- **Producers** should modify the wooden products → **install the green criteria** to enhance the image and grab market advantage
- How to compete with?
 - ✓ **China** → economies of scale through **capital intensive products**
 - ✓ **Brazil** → enhance **forest certification**

How did Malaysia adapted and reacted to the trade barriers and adjust them into competitive advantage?



- **Sustainability** : Commitment to SFM to maintain the forest ecosystem goods and services
- **Shortage of raw materials**: Going into value-added products which indirectly lessen the impact of trade barriers; (trade barriers centred more on raw wood)
- **Legality**: Pursuing national certification (Malaysian Timber Certification) and negotiating on FLEGT agreement

Trade barriers for Malaysian wooden products in the European market

Regulations/ negotiations

Consumer behavior

Legality of wood:
Certification

Environmental issue:
Sustainability of forest

Social issues:
wages paid to foresters,
safety issues, home
country bias to protect
local economy,

Adapted &
reacted

New challenges

Conclusion

- The rising of environmentally related standards has shaped the export of Malaysia to Europe towards more value-added products and enhances the mechanization and production technology. Malaysia adapts the trade barriers by changing the nature of the products.
- However, consumer behavior which concern more on social aspects of wood, posed a new challenges for Malaysian wooden industry to enter European market.

This research still has some questions to ponder upon

- Are all non-tariff barriers justifiable in the setting up of environmental standards?
- Should Malaysian exporters pay greater attentions to the fair trade attribute in wooden products to gain market share in Europe?
- Are European consumers moving towards ethical consumption which emphasizes more on decent working condition rather than environmental issues? Or is it an instinctive protectionist attitude from European buyers?
- Are the results on willingness to pay for hypothetical flooring products applicable to all market segments and other countries apart from the French?

Thank you
Merci