

Trade Costs, FDI and Trade in Parts and Components in Developing Asia

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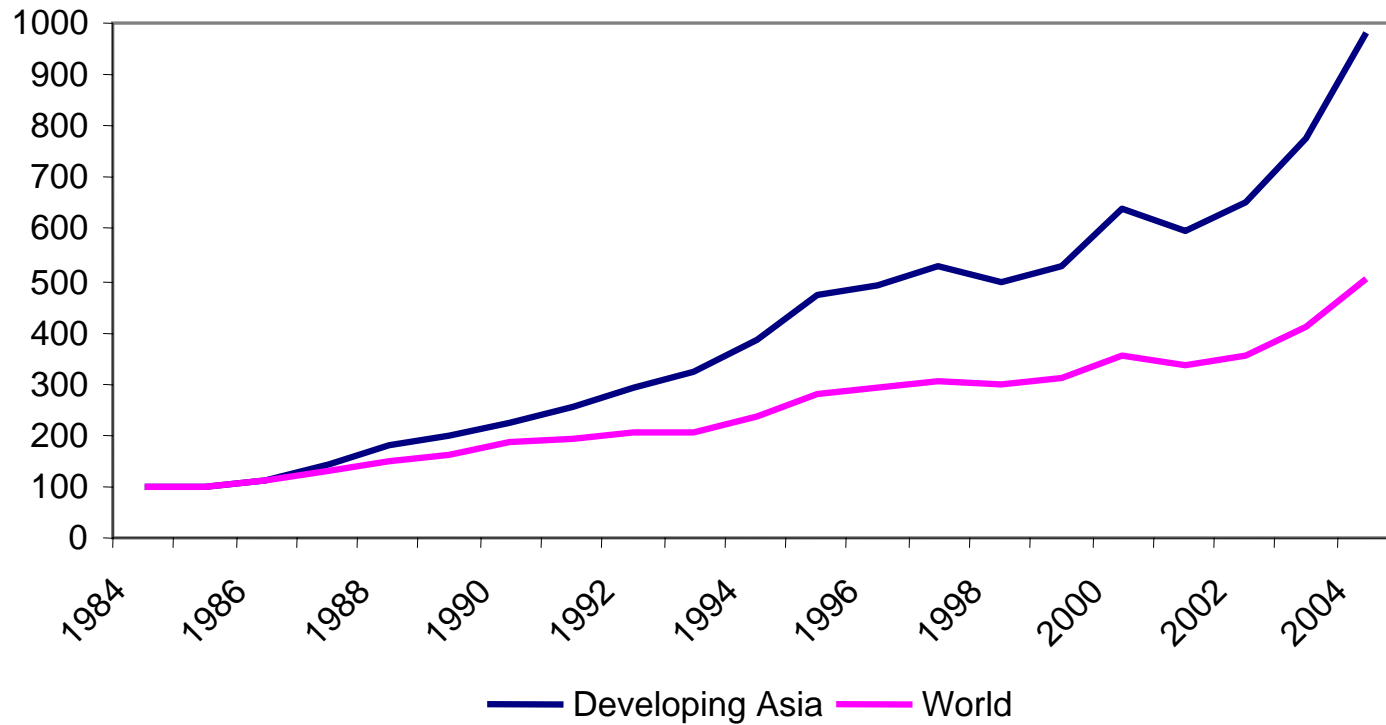
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Outline

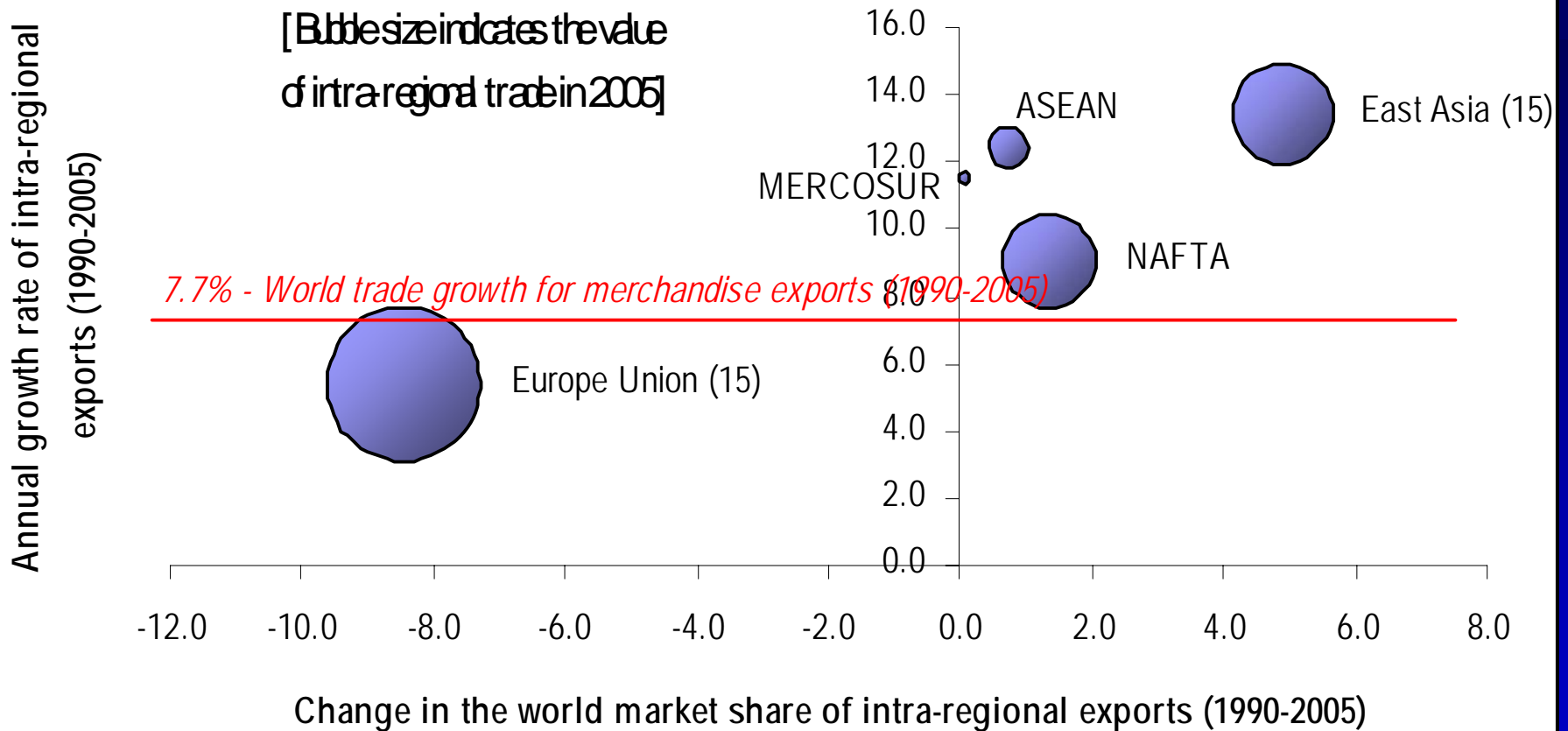
- Trade Costs
- Foreign Direct Investment
- Trade in Parts and Components

Figure 1: Export Index (1984=100)



Source: IMF, Direction of Trade Statistics, August 2005.

Intra-regional Trade of Major Regions: 1990-2005



Source: Calculated from UN Comtrade data (S2, items-total).

Changing Trade Costs (Hummels)

- The advent of fast transport (air shipping and faster ocean vessels) is equivalent to reducing tariffs on manufactured goods from 32% to 9% between 1950-1998
- Containerization in ocean transport changed the composition of freight rates, lowering the cost of distant relative to proximate travel

Trade Costs Affect International Business Decisions

- Each additional day spent in transport reduces the probability that the US will source from that country by 1-1.5%
- Relative declines over time in air shipping prices make time-savings less expensive → aggregate trade growth, growth in time-intensive forms of integration such as vertical specialization

Variation in Trade Costs

- Trade costs vary widely across countries
- On average, developing countries have significantly larger trade costs, by a factor of 2 or more in some important categories
- Trade costs also vary widely across product lines, by factors of as much as 10 or more

Time costs?

- Air prices are many times higher than ocean prices for the same good, but
- air cargo is a rapidly growing share of trade
 - Ton-miles, growing at 8.4 % per year since 1975
 - Values:
 - US 1/3 of imports, 1/2 of exports outside N. America
 - Similar number for big Latin American countries
- Reason: ocean shipping is slow, and firms/consumers value timeliness

Direct effects of Trade Facilitation

- Lower transaction costs
- Reduce delays in the clearance of goods
- Shrink the wedge between domestic and international prices
- Reduce the opportunities for administrative corruption and rent-seeking

Empirical Evidence on Trade Facilitation

- Japan
 - TF measures cut average lead time from 53 hours in 1991 to 26 hours in 2001 for air cargo, and 168 hours to 74 hours for sea cargo over the same period.
- Singapore
 - TradeNet system has helped reduce the documentation cost borne by government and businesses by more than half.

Implications of Rapid Growth

- Unbalanced trade = unbalanced demand for transportation
- Rapid growth = Congestion
 - -Not just in transport services; quality control
- Interdependence
 - -Congestion in China is an Asia-wide problem
- But...economies of scale in trade services
 - -Information
 - -Competition among service providers

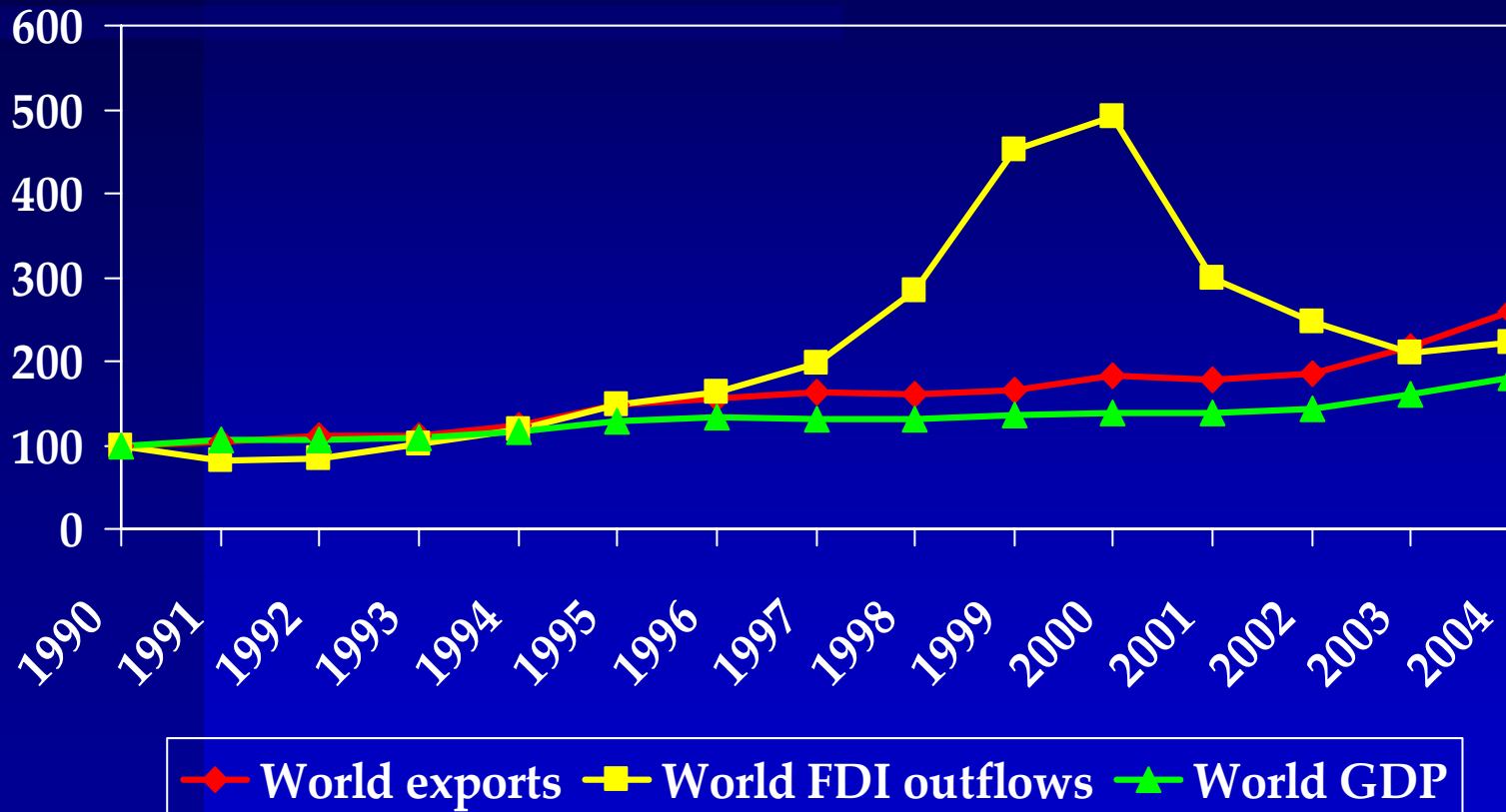
A broader view of trade costs

- What inputs does a firm need to engage in international trade; what hurdles must it overcome?
- Physical transportation
 - Explicit cost
 - Timeliness
 - Variability (in arrival time, in condition of goods, possibility of disruptions)
- Information about foreign markets, opportunities
 - What do consumers want?
 - Identifying foreign market opportunities
 - Distribution, marketing

Foreign Direct Investment in East Asia

- FDI, cross border production and trade, fragmentation of production activities, and industrial agglomeration are prime feature of East Asia's economy

Indices of World Exports, FDI Outflows, and GDP, 1990-2004 (1990=100)



Note: 2004 data are preliminary.

Sources: Exports & GDP – WEO database; FDI Outflows – UNCTAD FDI database.

FDI Inflows in Selected Developing Asian Economies, 2001-05

Economy	% of Total FDI in Developing Asia	Ratio to GDP
PRC	46.1	3.4
Hong Kong, China	18.9	13.9
Singapore	11.0	13.8
India	4.5	0.9
Korea, Rep.of	4.1	0.8
Malaysia	2.4	2.7
Kazakhstan	2.2	8.5
Thailand	1.9	1.7
Azerbaijan	1.6	25.2
Taipei,China	1.5	0.6

Sources: UNCTAD FDI September 2006 database; World Bank World Development Indicators online database; IMF WEO September 2006 database.

Annual FDI Inflows (US\$ million)

The inflows are substantial...

Rank	Host Economy	2001-05
1	PRC	57,232.3
2	Hong Kong, China	23,402.2
3	Singapore	13,653.2
4	India	5,551.2
5	Korea, Rep.of	5,145.2
6	Malaysia	2,964.4
7	Kazakhstan	2,673.6
8	Thailand	2,377.3
9	Azerbaijan	2,028.2
10	Taipei,China	1,906.0

Sources: UNCTAD FDI September 2006 database; World Bank World Development Indicators online database; IMF WEO September 2006 database; National Statistics, Republic of China

FDI Inflows (as % of Gross Fixed Capital Formation)

and can count for much of investment,

Rank	Host Economy	2001-05
1	Hong Kong, China	63.2
2	Azerbaijan	61.3
3	Singapore	55.4
4	Kazakhstan	35.5
5	Tajikistan	31.9
6	Armenia	23.4
7	Mongolia	23.0
8	Kyrgyz Republic	21.2
9	Fiji Island	18.7
10	Cambodia	15.1

Sources: UNCTAD FDI September 2006 database; World Bank World Development Indicators online database; IMF-WEO September 2006 database; National Statistics, Republic of China

FDI Inflows Per Capita (US\$)

thereby saving domestic income for other uses

1	Hong Kong, China	3,415.8
2	Singapore	3,227.4
3	Brunei Darussalam	3,051.6
4	Marshall Island, Rep.of	2,018.6
5	Azerbaijan	245.2
6	Kazakhstan	178.8
7	Kiribati	170.0
8	Malaysia	120.1
9	Korea, Rep.of	107.3
10	Taipei,China	84.5

Sources: UNCTAD FDI September 2006 database; World Bank World Development Indicators online database; IMF WEO September 2006 database; National Statistics, Republic of China

Infrastructure and Trade Costs (indirect role for FDI)

- Lower marginal costs → larger minimum efficient scale of production → economies of scale
- A country more deeply involved in global production networks will benefit more than one that is not

Trade in Components and Parts

- When the fragment becomes the standard production part for various products, and
- Final assembly is increasingly located overseas to access final users and cheap labor

Trade in Parts and Components

- There exist three mutually reinforcing development in TPC: The technological advancement in production slices production into portable components
- Technological innovation in communication and transportation
- Investment and trade liberalization in both home and host countries

Trade in Parts and Components

- Is growing more importantly in Pacific Rim countries, especially East Asia.
- The value of the total world component trade increased from about \$404 billion in 2002 to \$1,258 in 2004 which is about 21 per cent to over 26 per cent increase in total world manufacturing export between 2002 and 2004. (Athukorala 2007)

Trade in Parts and Components

- East Asian countries as a group are more strongly dependent on fragmentation-based trade than any other region in the world.
- In 2004, components accounted for 33.5 per cent of the total manufacturing export of East Asian countries, especially Malaysia, the Philippine, Singapore and Thailand, while only 20.9 per cent for EU, and 30.7 per cent for NAFTA countries. (Athukorala 2007)

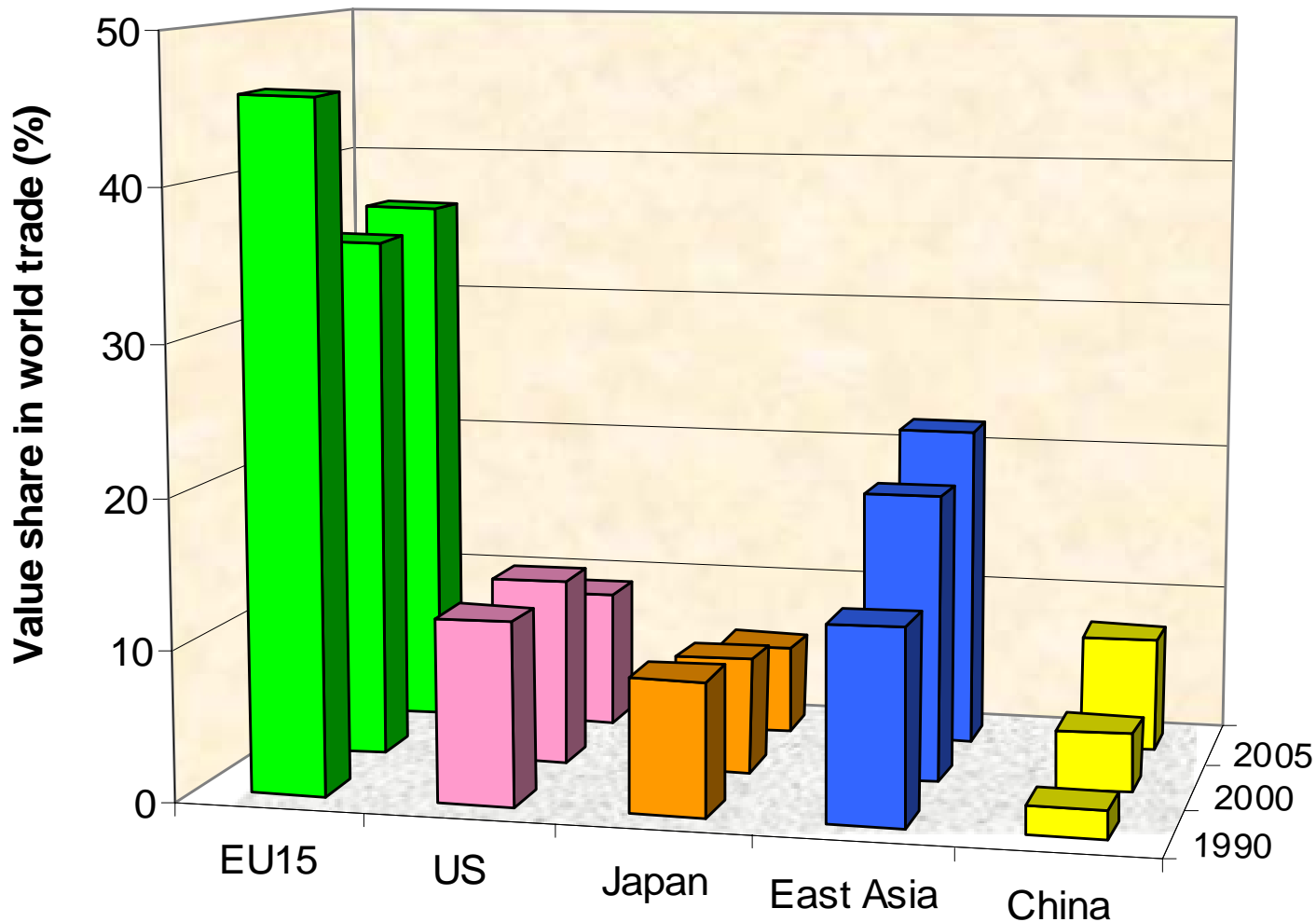
Emerging East Asia and Other Selected Regions in World Trade

Group	Total Exports (US\$' billion)			Share of World Trade (%)		
	1990	2000	2005	1990	2000	2005
East Asia	417.8	1193.9	2136.6	13	19.2	21.7
East Asia (excl. China)	355.7	944.7	1374.6	11	15.2	13.9
East Asian Intra-Trade	136.1	456.4	901.7	4.2	7.3	9.1
East Asia to Rest of World	281.7	737.4	1234.8	8.7	11.8	12.5
East Asia to Europe Union (15)	65.1	176.1	308.2	2.0	2.8	3.1
East Asia to United States	94.2	252.1	365.9	2.9	4.0	3.7
East Asia to Japan	61.7	145.9	203.8	1.9	2.3	2.1
East Asia to China	24.3	109	282.7	0.8	1.7	2.9
WORLD EXPORTS	3224.8	6233.1	9859	100	100	100

Source: Calculated from UN Comtrade data (S2, items-total).

Notes: East Asia includes Brunei, Cambodia, China, Hong Kong (China), Indonesia, Korea Rep., Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Taipei, China, Thailand, and Viet Nam.

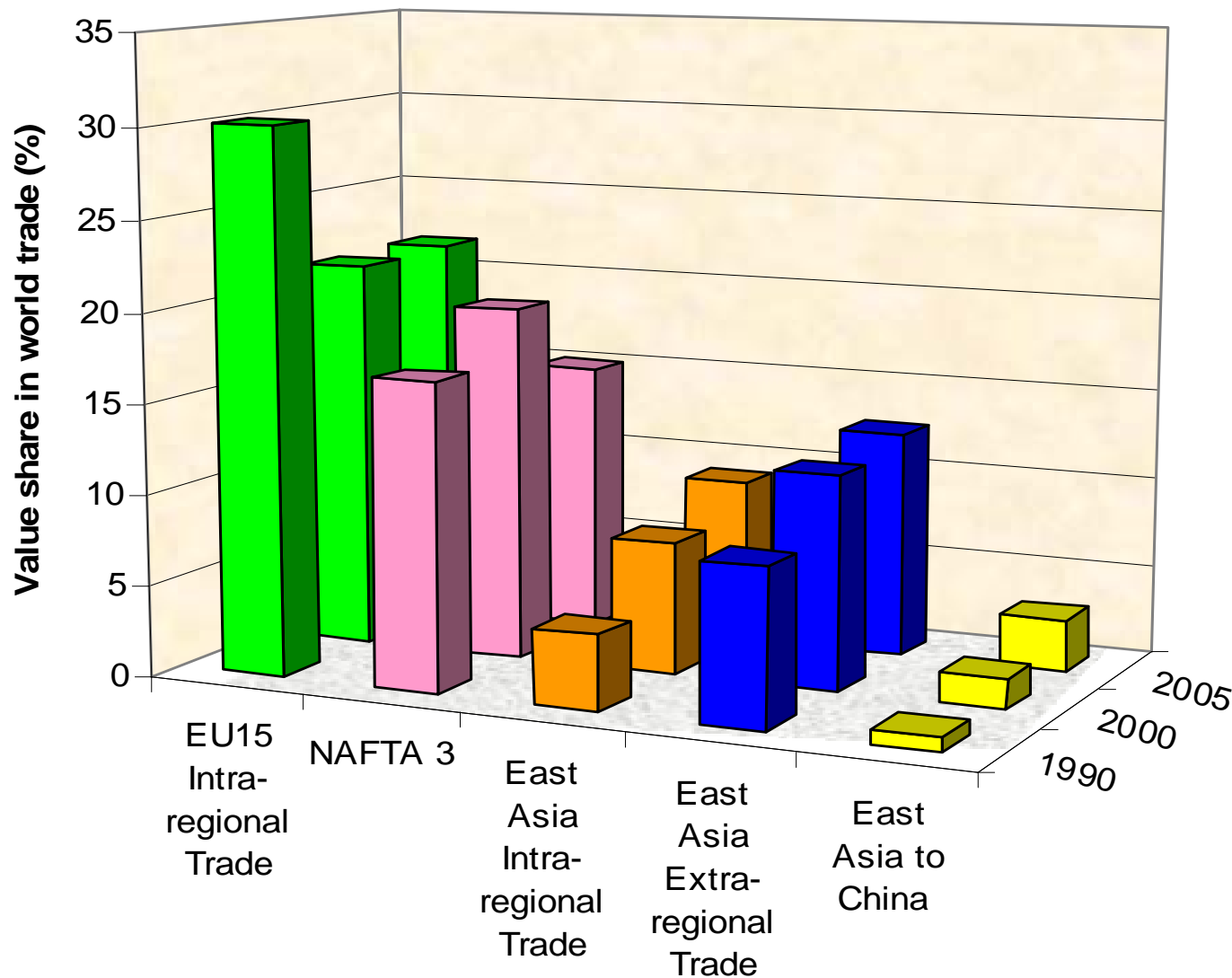
World Market Share Changes of Exports for Selected Regions/Countries: 1990-2005



Source:

Calculated from UN Comtrade data (S2, items-total).

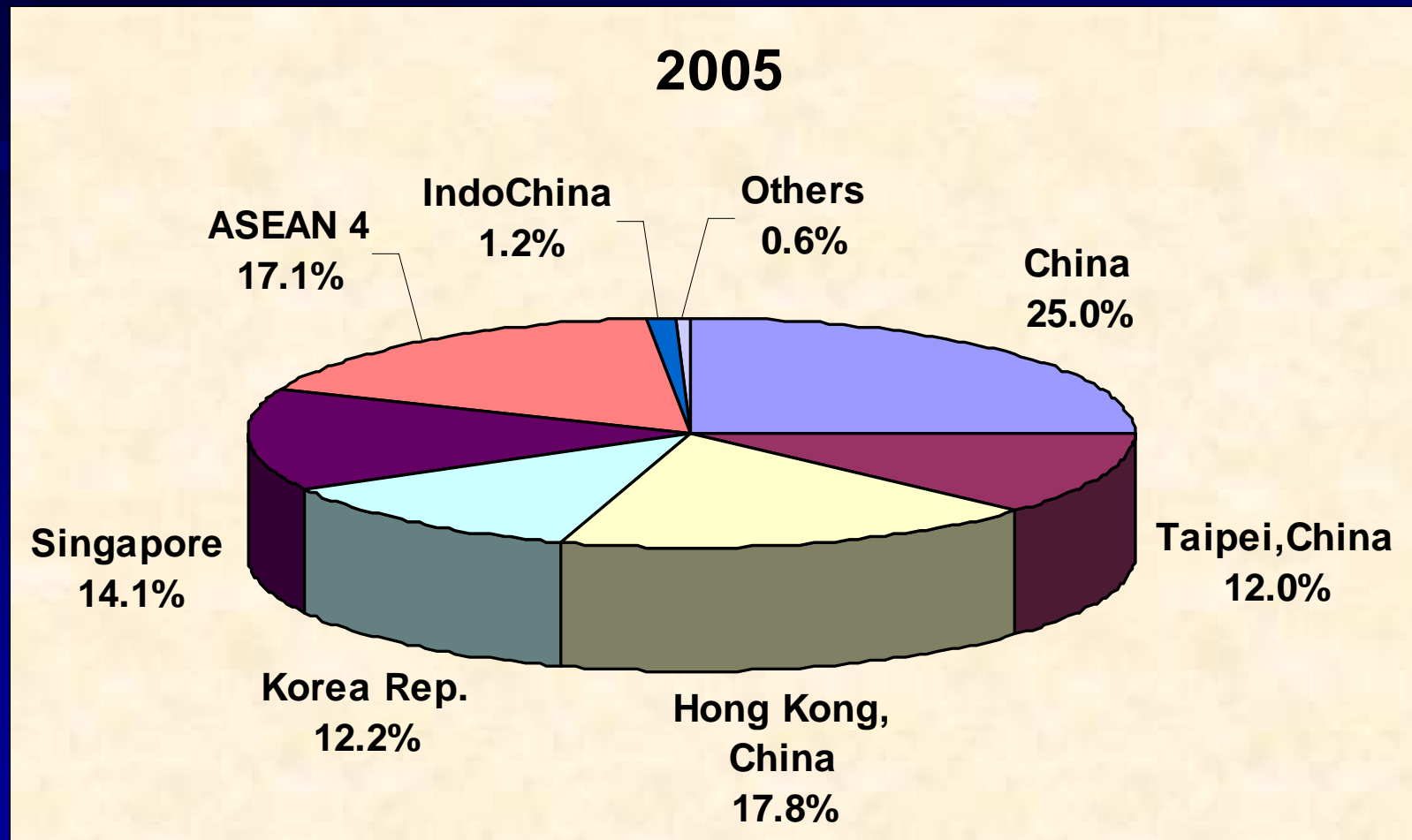
World Market Share Changes of Exports for Selected Regions/Countries: 1990-2005



Source:

Calculated from UN Comtrade data (S2, items-total).

The Share of Intra-Regional Trade Accounted for by Individual East Asian Exporters: 1990, 2000, 2005

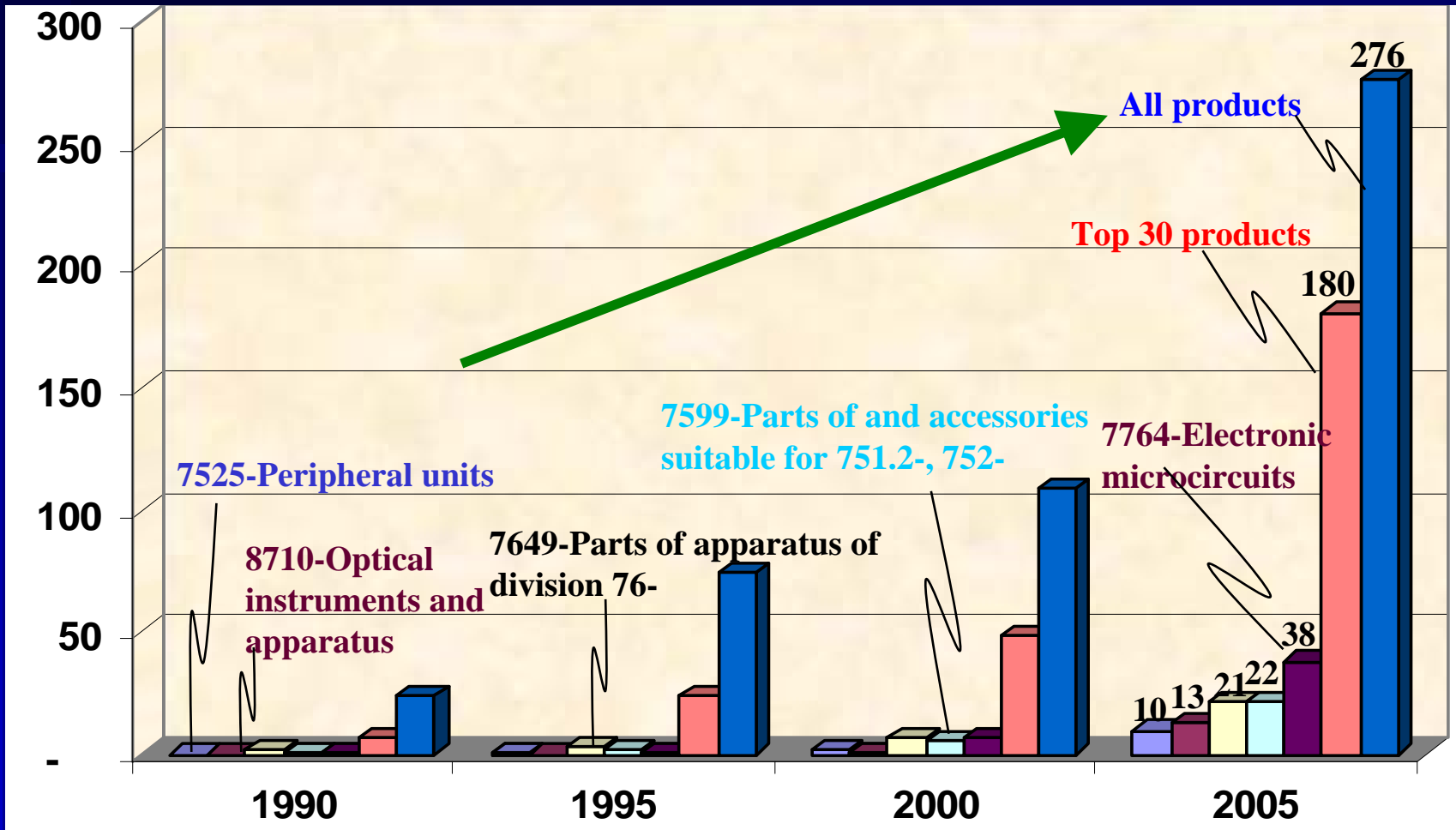


Source: Calculated from UN Comtrade data (S2, items-total).

Note: ASEAN 4 includes Malaysia, Thailand, Indonesia, and Philippines.

Trend of major products in China's imports from East Asia

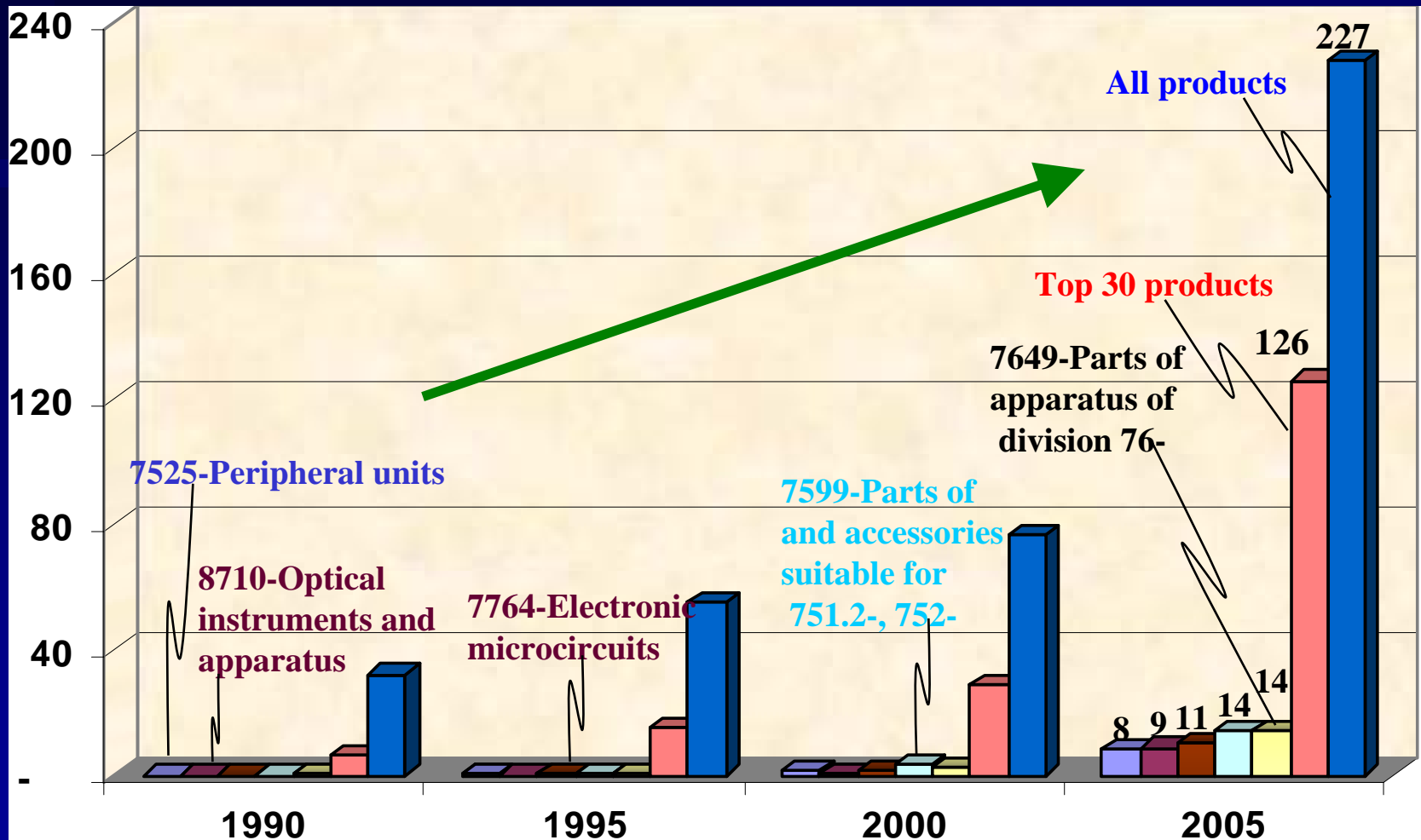
(US\$ billion)



Source: Calculated from UN Comtrade data (SITC 2, 4-digit).

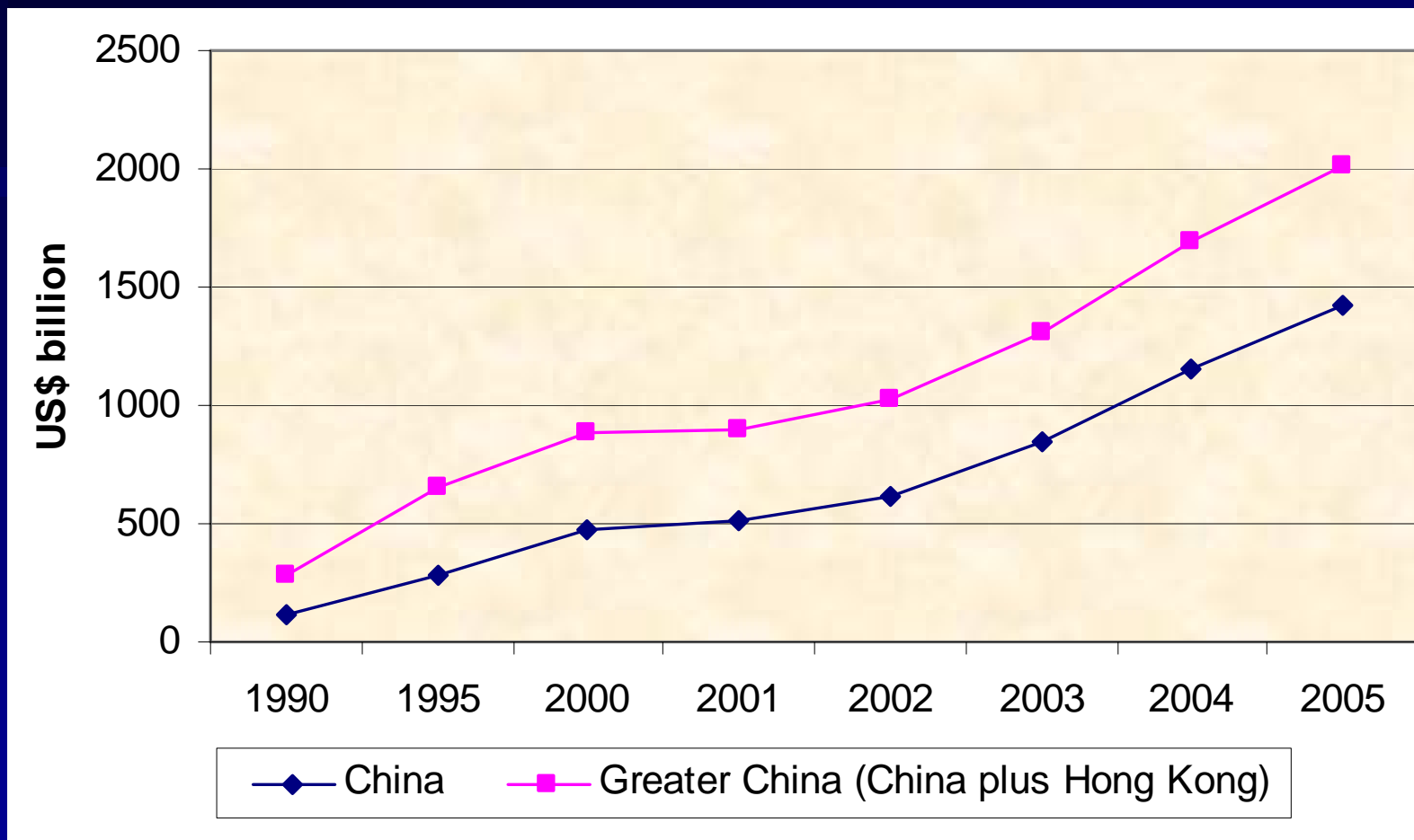
Trend of major products in China's exports to East Asia

(US\$ billion)



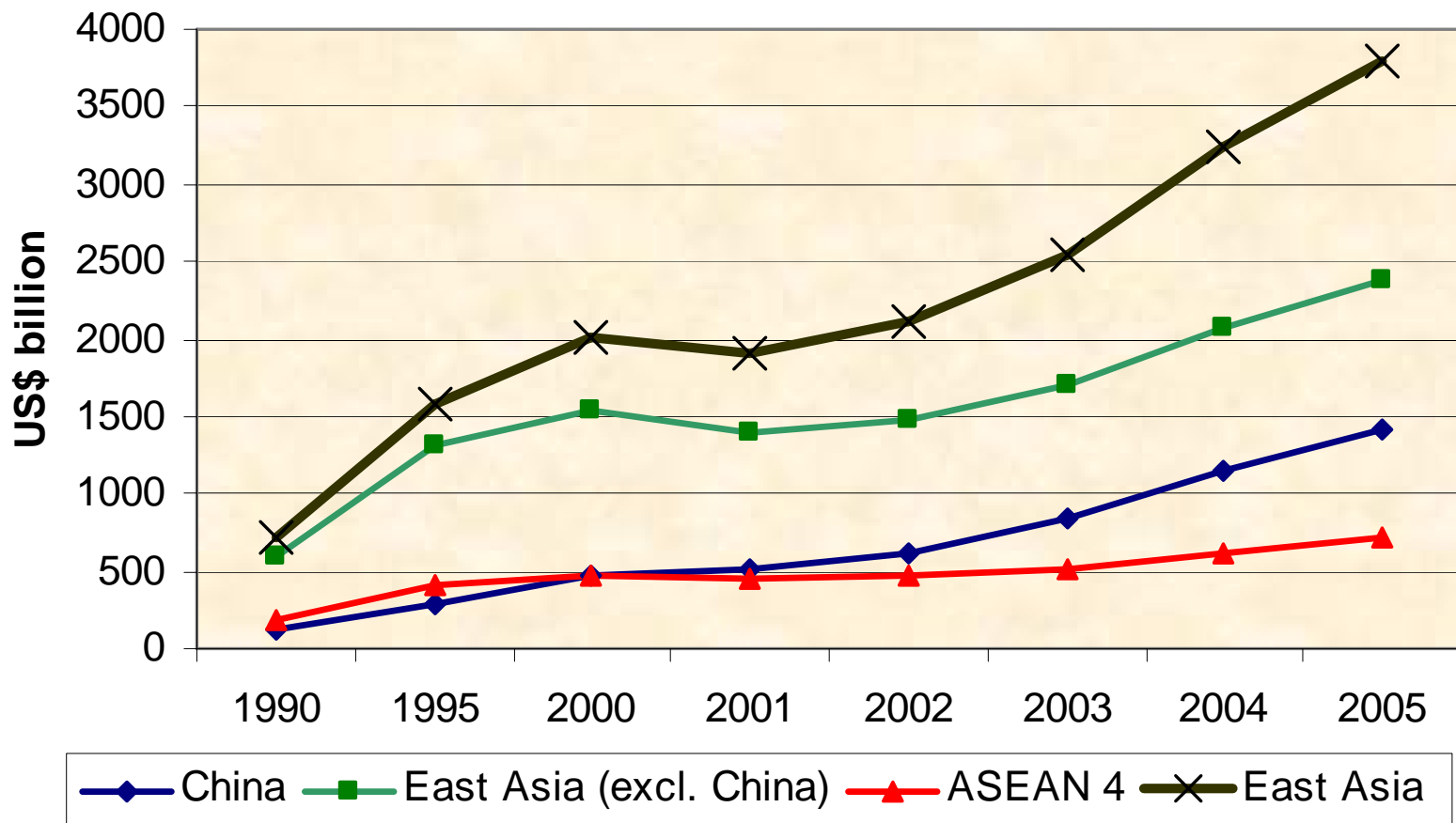
Source: Calculated from UN Comtrade data (SITC 2, 4-digit).

Trend of Trade in Parts and Components in China



Source: Calculated from UN Comtrade data (SITC 2, 4-digit).

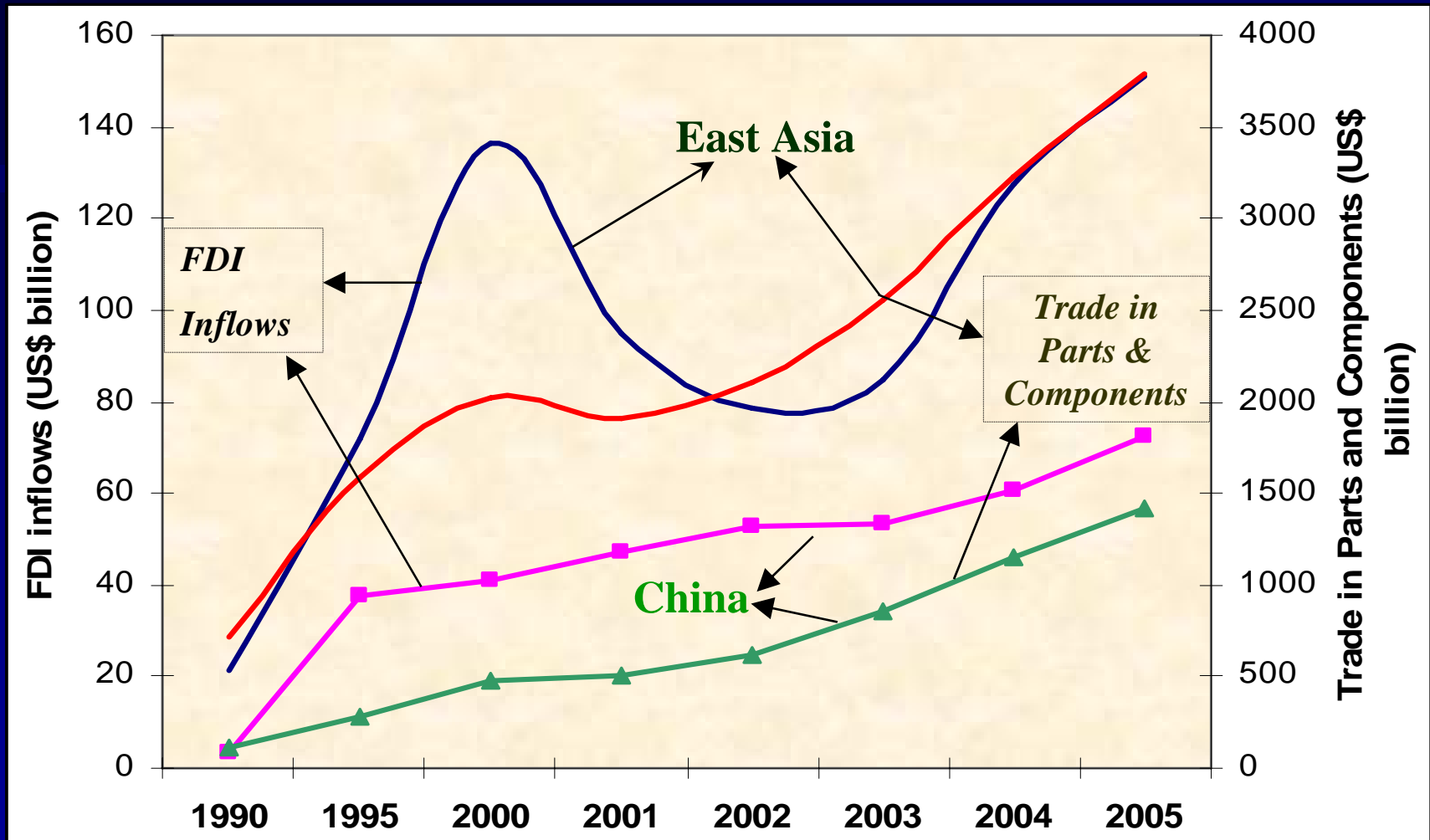
Trend of Trade in Parts and Components in East Asia



Source: Calculated from UN Comtrade data (SITC 2, 4-digit)

Note: The definition of East Asia is the same with previous slides₃₁

FDI Inflows and Trade in Parts & Components in China and East Asia



Source: compiled from UN Comtrade data (SITC 2, 4-digit) and World Investment Report, various years.

Note: The definition of East Asia is the same with previous slides³²

Main Points

- East Asian trade has been growing rapidly; most of it is intraregional
- Declining trade costs influence the process
- Much of EA intraregional trade is intraindustry trade in parts and components
- FDI both facilitates this development and responds to it (causation?)

Thank You

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