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Economic Assessment of Liberalizing Environmental Goods and Services...

Economic Analysis of the LAS Reference List and the Regional Market for Environmental Services

*Expert Meeting on
Trade and Environment Priorities in the Arab Region*

*Grand Hyatt Cairo
11-13 November 2007*



This presentation

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The following acronyms
will be used :

EGS – Environmental Goods & Services

EG – Environmental Good

ES – Environmental Service

DCs – Developing Countries



EGS Trade Liberalisation

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Why:

- Doha Mandate

enhance the mutual supportiveness of trade and environment

What's involved:

- Worldwide reduction of EG tariffs
- Significant opening of ES sectors to foreign suppliers



New ESCWA Study

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THE LIBERALIZATION OF TRADE IN ENVIRONMENTAL GOODS AND SERVICES IN THE ESCWA AND ARAB REGIONS

- To increase regional understanding and facilitate regional dialogue on the EGS liberalization in the region
- Responds to a request by CAMRE in 2006 for additional analysis to inform discussion on this topic, including trade analysis of the Arab Reference List (ARL)



New ESCWA Study

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- **Reviews regional trends related to water, energy and solid waste management, and related market requirements for EGS**
- **Examines the potential of international trade to help meet these requirements, build EGS supply capacities, and generate EGS export opportunities for the region**
- **Presents quantitative analysis of trade and tariff patterns for various EGs, including the LAS reference lists of EGs**



ESCWA Study : Main Findings

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Current trends:

- Regional needs & demand for ES are high and increasing
- EGS imports are high and rising
- Regional EGS supply & exports are growing, but slowly and for only a few environmental goods and services
- Exports are not keeping pace with imports, despite opportunities that could be presented by South-South trade.



ESCWA Study : Highlights

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In the short time we have available today, we review study findings for

Trade Liberalisation in

Environmental Services (Part 1)

and

Environmental Goods (Part 2)

and discuss implications for the region



ESCWA Study : Highlights

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Environmental Services...



Doha Mandate on EGS

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- *commitment to sustainable development (SD)*
- *mutually supportive T&E policies*
- *a share in the growth of world trade for DCs*
- *needs of DCs' economic development*
- *enhanced market access for DCs*
- *less than full reciprocity in liberalisation commitments*

**Any agreement on the liberalisation of ES
should reflect these principles**



Doha Mandate on ES

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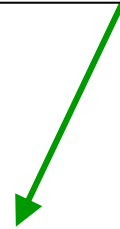
- The Doha Declaration calls for negotiations on “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services”
- ES liberalisation negotiated under the (2nd round of) GATS negotiations
- Following four years of GATS negotiations on environmental services, most developed countries, but few developing countries have made ‘offers’ to open their environmental services markets



What is an ES ?

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**Environmental
services**



Waste water collection, treatment, purification

Fresh water distribution

Trash collection, recycling, disposal (landfills, incineration)

Hazardous waste management

Air pollution management

Remediation (clean-up of water and soil)

Sustainable energy supply



What is an ES ?

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- The definition and scope of environmental services under discussion in WTO negotiations are agreed upon: is used **United Nations Central Product Classification (Provisional CPC)**
- Under the CPC, the Environmental services sector comprises:
 - sewage services
 - refuse disposal services
 - sanitation and similar services
 - other (cleaning services for exhaust gases, noise abatement services, nature and landscape protection services, and other environmental services not elsewhere classified)

Members focusing on these services



GATS Negotiations

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- Four modes of market access are defined for services liberalisation:
 - **Mode 1** – cross border exchange
e.g., outsourcing often based on ICT
 - **Mode 2** – consumption abroad
e.g., tourism
 - **Mode 3** – commercial presence
e.g., foreign enterprise moves into country
 - **Mode 4** – movement of natural persons
e.g., foreign workers temporarily reside in country to provide services

**Environmental services trade
involves Modes 3 and 4**



GATS Negotiations

Members' commitments

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- GATS allows flexibility for developing country members to open fewer sectors, liberalise fewer types of transactions and progressively extend market access in accordance with their development situation
- Services must be privatised before they can be liberalised
- ES commitments can be customised to serve national development priorities !



GATS Negotiations

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Members' commitments

- Members can open the way they want with well-designed limitations and restrictions:
 - Types of participation allowed – BOT, time-bound concessions, joint-ventures
 - Limits on foreign ownership
 - Performance requirements – local content of capital inputs & labour, technology transfer
 - Licensing requirements
 - Representation of nationals in management
 - Issuance of work permits
 - etc...



Growth in ES Market evident

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- **Global market:** \$360 billion (1990) to \$550 billion (2001) to \$630 billion (2004)
- **Developing Countries** account for \$82 billion (2004) = 13%
- **Middle East** market valued at \$9.7 billion (2004)
 - Equal about 1% of GDP
 - Accounts for 1.6% of Global Market
 - About \$4.4 billion spent on Environmental Goods
 - About \$5.3 billion spent on Environmental Services

* Per Environmental Business International, Inc.



The Middle East ES Market

ESCWA

Market size estimates for 2004

ES Sector	\$ million
Water treatment	600
Solid waste management	1,400
Remediation and industrial services	2,400
Hazardous waste management	400
Analytical services	100
Engineering and consulting services	400

Source: Environmental Business International
(ESCWA countries, minus Egypt, plus Turkey, Iran, Israel)



Dynamic Gains

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ES trade liberalisation can:

- Increase FDI inflows, technology transfer
 - Turnkey projects, public/private partnerships (outsourcing)
 - R&D, innovation, customization
- Improve services infrastructure
- Improve local conditions for health and tourism
- Yield economic spillovers – increase demand for local capital and services inputs, generate employment opportunities
- Reduce costs for consumers due to increased efficiencies
- Improve services offerings
- Free-up government budget for other expenditures



Dynamic Losses ???

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However, ES trade liberalisation may:

- Not generate desired spillovers or employment opportunities for nationals if commitments are too loosely structured
- Result in higher costs to consumers for ES
- Not support universal access to essential services as former state-owned utilities had
- Result in employment dislocations for redundant utilities workers
- Displace emerging national firms unable to compete with multinationals from participating in the sector



The Outlook for LAS Countries

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- Tendency towards state-owned natural monopolies in LAS Countries [sewage, water treatment and distribution, refuse disposal infrastructure]
- In most cases liberalization will require privatization as a first step – proper timing and sequencing of steps to take must be well-planned
- Need to establish regulatory, competition and enforcement capabilities for private sector
- Regulatory objectives: rates, universal access, standards and quality of the service, competition, and addressing negative externalities all must be set



The Outlook for LAS Countries

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- Full-cost recovery from consumers is the ideal long-term goal – need for subsidisation or cross-payments for low income population
- Small size of some national ES markets may favour public-private sector partnership approaches to privatization followed gradually by liberalisation as national firms may not otherwise materialise
- An evaluation of public versus private policy alternatives is required
- A “one size fits all approach” does not exist – the best policies are service and country specific



ESCWA Study : Highlights

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Environmental Goods...



Doha Mandate on EGs

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- *commitment to sustainable development (SD)*
- *mutually supportive T&E policies*
- *a share in the growth of world trade for DCs commensurate with the needs of their economic development*
- *enhanced market access for DCs*
- *less than full reciprocity in reduction commitments*

**Any agreement on EGs
should reflect these principles**



Doha Mandate on EGs

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- The Doha Declaration calls for negotiations on “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services”

But without defining what these goods are !

- The WTO Committee on Trade and Environment (CTE) seeks to define what are Environmental Goods



What is an EG ?

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- There are two broad classes of environmental goods under discussion in WTO negotiations
 1. Manufactured goods and chemicals used directly in the provision of environmental services
 2. Raw and manufactured goods not associated with providing environmental services, but they have reduced negative, or positive, effects on the environment
- All EGs belong to one of these two classes



What is an EG ?

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**Environmental
Goods**

Class A

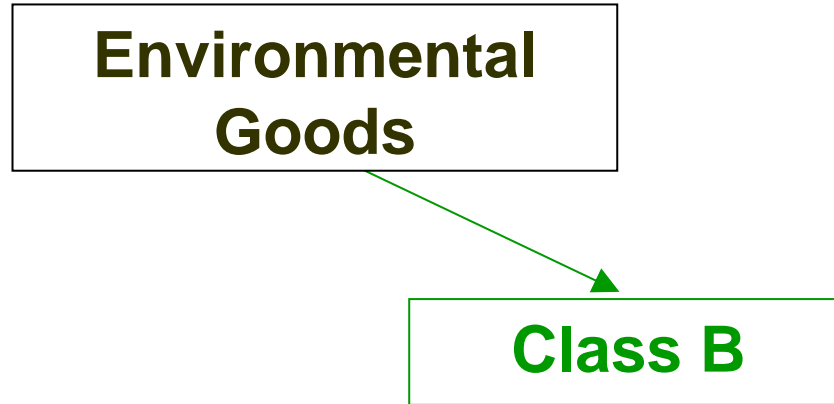
Goods used to provide environmental services

- wastewater treatment
- solid waste management
- air pollution control
- noise abatement
- environmental remediation, ecosystem management



What is an EG ?

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Goods with positive environmental characteristics relative to substitute goods

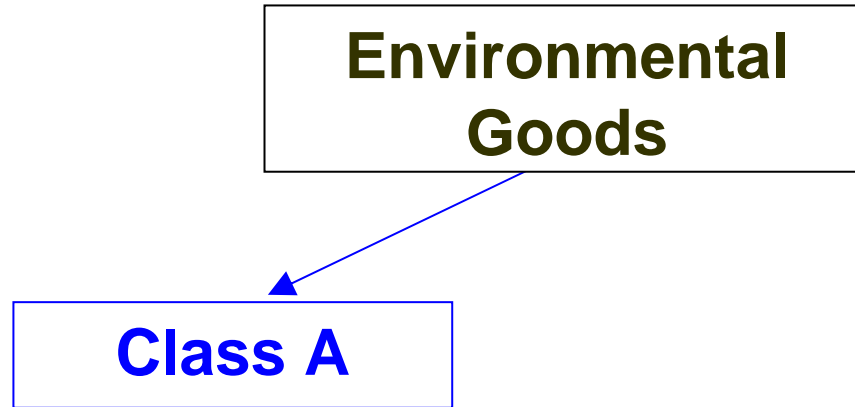
Generally used for purposes other than environmental ones in commercial and household applications

Often called “Environmentally Preferable Products” or EPPs



What is an EG **Some examples**

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basic manufactures such as valves, filters, pumps, compressors, tanks and containers, chemicals used in water purification

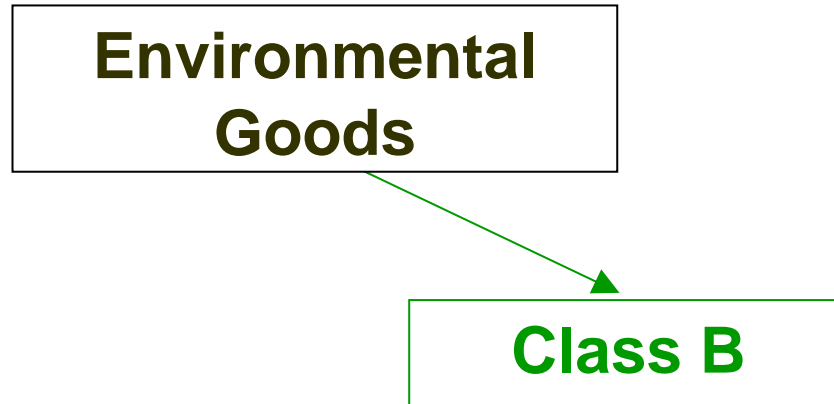
trash compactors, brooms, plastic lining material for landfill sites, ceramic wares and furnaces used in incineration, sorting equipment for recycling

measuring equipment to monitor the environment
noise reducing mufflers



What is an EG **Some examples**

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organic agricultural products, CFC-free refrigerants, chlorine-free paper, biodegradable natural fibers such as jute, sisal and coire, natural dyes, organic soaps free of phosphates, water-based paints, natural rubber, polymers, gums and adhesives, equipment used to generate renewable/clean energy, ethanol and other clean/renewable fuels, energy-efficient lighting



What is an EG **Likely WTO outcome**

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- It is rather straightforward to identify and agree upon Class A EGs – a good is either used or not used in providing an environmental service
- It is much more difficult to identify and agree upon the environmental benefits of Class B EGs since this depends on product lifecycle analysis – unavailable for most EPPs and associated with uncertain, subjective and incomplete results
- It is thus likely that most EGs identified for tariff reduction by the WTO will be Class A EGs, at least in the near term



Proposed EGs

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- After six years of negotiations, WTO members have been unable to agree on either an operational or list-based definition for EGs
- A list approach has been mostly pursued
- Developed country members have proposed EG lists
- These lists contain mostly Class A EGs with some Class B EGs (EU, Switzerland)
- Developing country members have yet to propose full lists of their own, although have advanced specific product groups (i.e., Qatar, Korea, Taiwan, Brazil, Peru)



Proposed EGs

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- *Recent* negotiations were examining all proposed and other potential EGs to develop a final list for negotiations on modalities
- ‘Modalities’ is negotiators’ jargon for defining:
 - levels of tariff cuts on EGs
 - timeframes for reductions
 - exclusions/special conditions for developing countries
- Reports from Geneva indicate little progress is being made



Proposed EGs **Why no progress ?**

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- Developing countries argue that few goods on the OECD and APEC list are of export interest to them – so they will gain little from tariff reductions and potentially lose a lot
- Many developing countries are thus waiting to see the outcome of other negotiations before conceding to agreements in EG negotiations
- Many countries argue that most EGs have multiple uses, only one of which is environmental
- Some developing countries would like to see PPM-related EGs liberalised, e.g., biofuels, organic food (Brazil, Peru)



Candidate EGs and their trade

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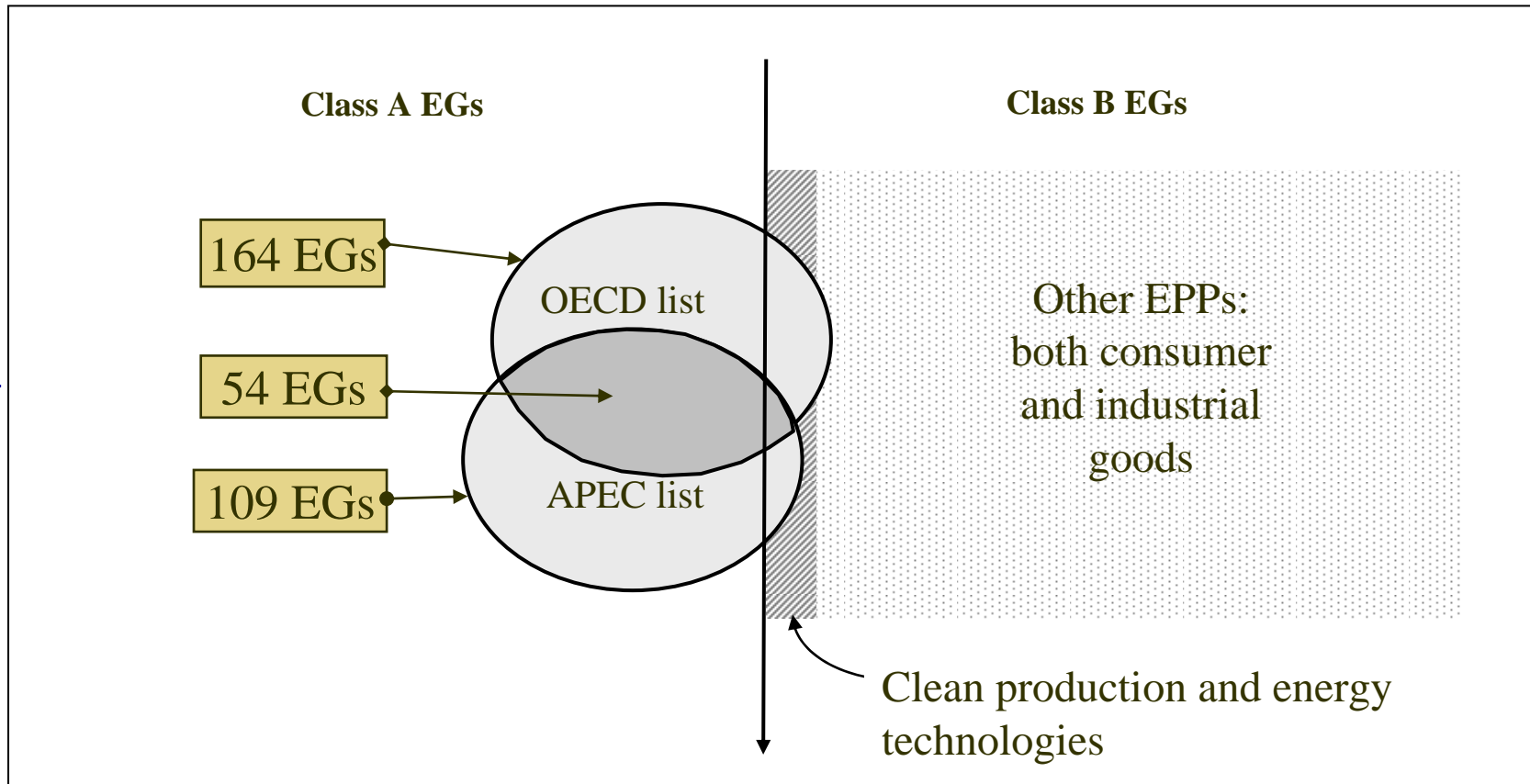
The ESCWA study analyses regional trade for the following sets of EGs:

- The OECD and APEC lists of EGs containing the Class A EGs proposed mainly by developed country members (**O+A list**)
- UNCTAD had developed a list of Class B EGs (**EPP-Core list**)
- 4 (of the 5) LAS reference lists of EGs designed to guide Arab countries in their preparation of national lists of environmental goods (**ALR I – IV**)



Mapping of the OECD and APEC lists of environmental goods

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LAS Arab Reference List (ARL)

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- **ARL I** Includes primary environmental goods of high commercial and developmental priority in the Arab countries that should be introduced into the WTO negotiations. [List contains 145 EGs.]
- **ARL II** Includes primary environmental goods for which custom tariffs should be gradually reduced according to the needs of developmental programs and the economic situation in Arab countries. [List contains 234 EGs.]
- **ARL III** Includes supplementary environmental goods in the Arab countries which are of limited environmental use in comparison with other uses. [List contains 55 EGs.]
- **ARL IV** Includes supplementary environmental goods of importance in least developed Arab countries, the use of which takes into account the compliance with international health and environment standards. [List contains 16 EGs.]
- **ARL V** Includes environmental goods in the Arab countries that should not be opened to trade liberalisation commitments due to inherent environmental, health, safety, economic and technical concerns associated with their use and management. [List contains 387 goods.]
 - ARL V includes goods in which trade between the Arab countries is prohibited under the Greater Arab Free Trade Agreement (GAFTA) for environmental, health and safety reasons.



Positive & Negative ARLs

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- ARL I, II, III and IV, which are 'positive EG lists' – i.e., lists of goods for which trade liberalisation can be considered
- ARL V is a 'negative EG list' – i.e., a list of goods for which trade should be restricted in order to meet regional environmental and sustainable development objectives.
- The introduction of a negative list is significant, as no such list has been introduced in the WTO negotiations thus far.

Arab ARL V Waste Imports (2005)			Arab ARL V Waste Exports (2005)		
HS Code	Description	Import (\$m)	HS Code	Description	Export (\$m)
711290	Waste/scrap, precious metals except pure gold/platinum	35	3915	Waste, parings and scrap, of plastics	54
3915	Waste, parings and scrap, of plastics	6	711210	Waste or scrap containing gold	52
711210	Waste or scrap containing gold	3	711220	Waste/scrap containing platinum	49
720441	Waste from the mechanical working of iron or steel nes	2	720441	Waste from the mechanical working of iron or steel nes	29
854810	Waste & scrap of primary cells	2	711290	Waste/scrap, precious metals except pure gold/platinum	13
2619	Waste from the iron or steel industry	1	854810	Waste & scrap of primary cells	5
711220	Waste/scrap containing platinum	0	2619	Waste from the iron or steel industry	3
Total		50	Total		206

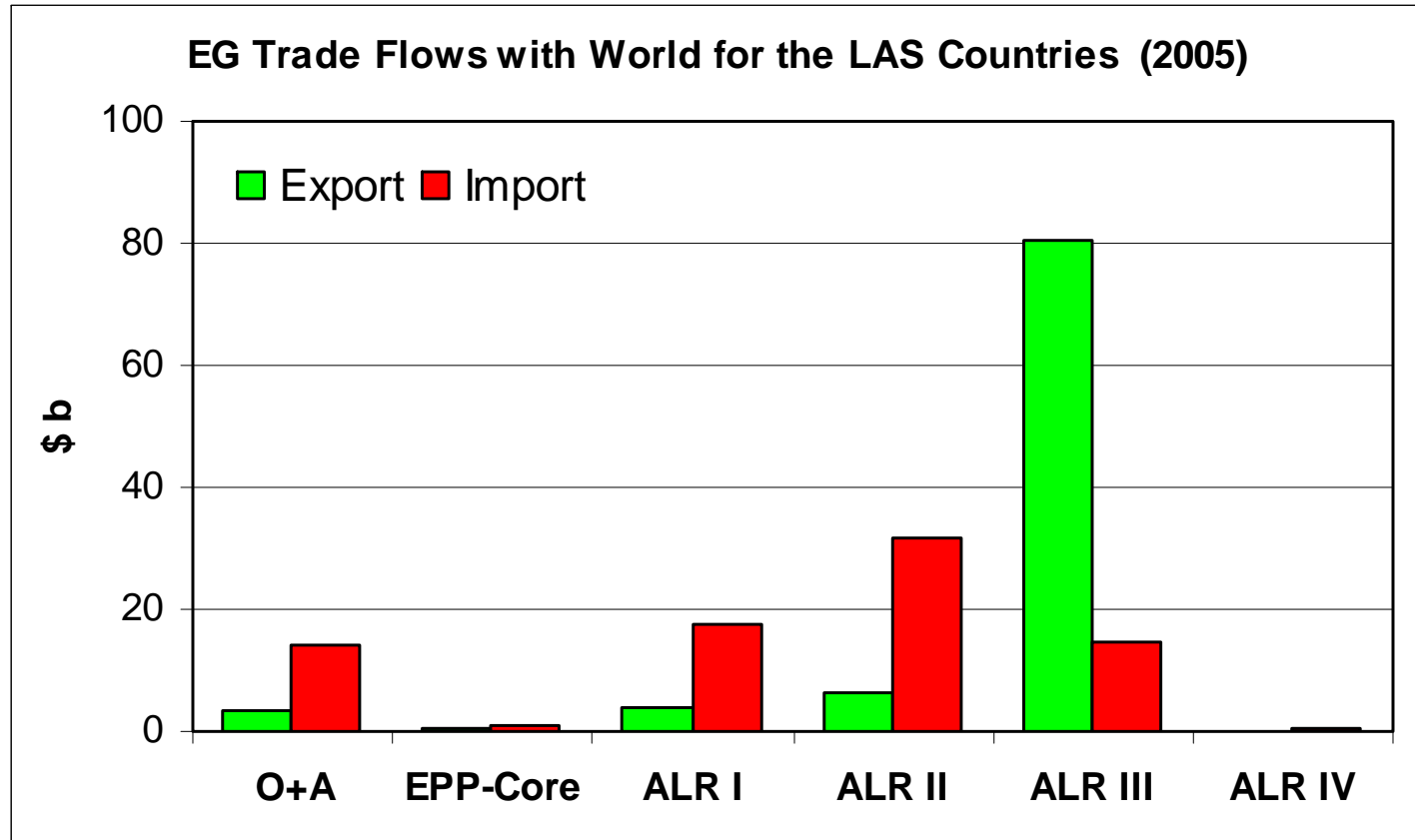
LAS Countries have a trade SURPLUS in ARL V Goods



EG Trade

Trade Flows

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Uncorrected data – see study

**LAS countries have a trade deficit
in all EG groups except ALR III**



Arab region's top traded goods included in ARL I

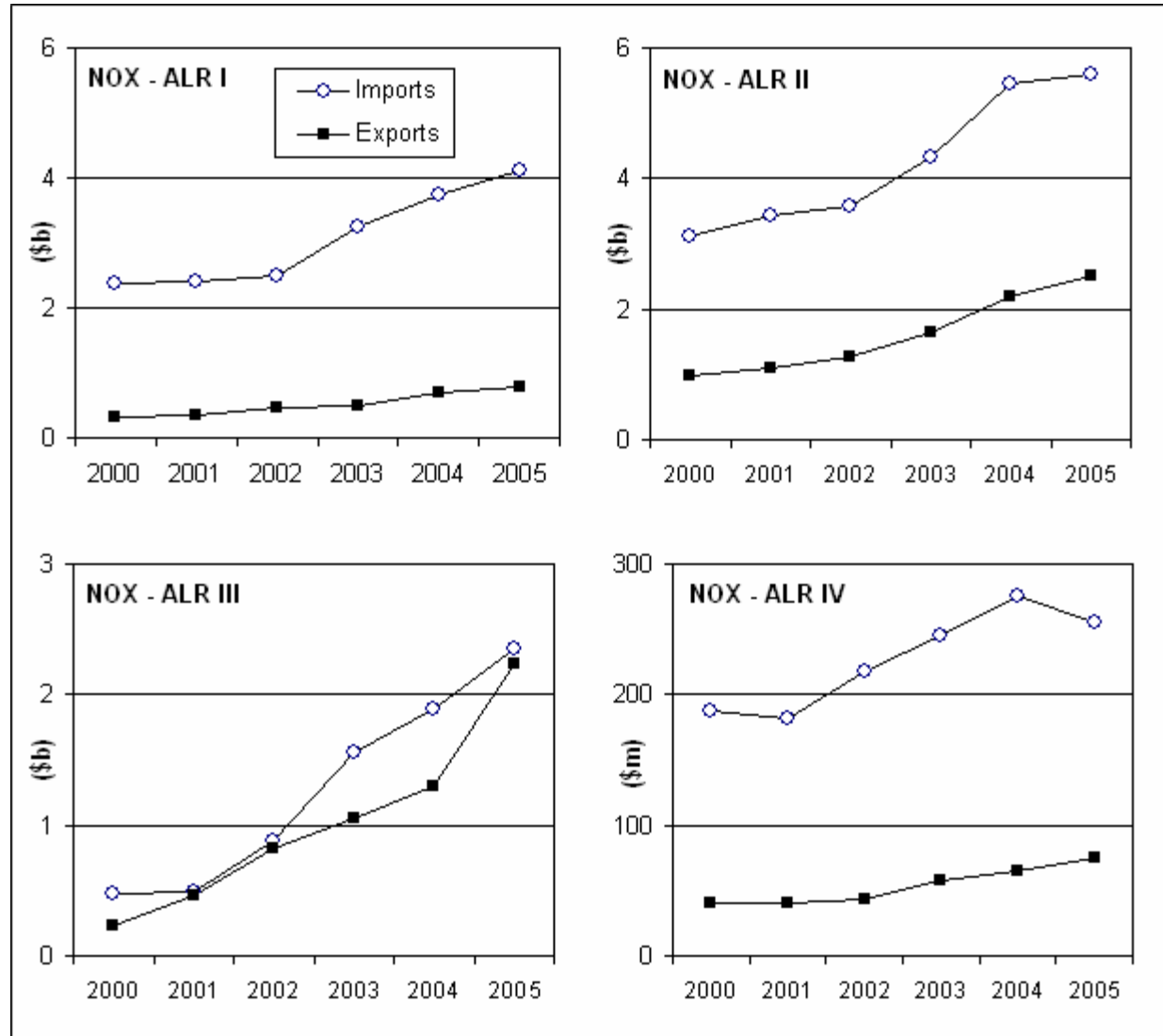
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Top ARL I Imports (2005)			Top ARL I Exports (2005)		
HS Code	Description	Import (\$m)	HS Code	Description	Export (\$m)
48	Paper & paperboard, articles of pulp, paper and board	3,469	48	Paper & paperboard, articles of pulp, paper and board	786
8413	Pumps for liquids	1,817	740400	Copper/copper alloy waste or scrap	391
8421	Liquid, gas centrifuges, filtering, purifying machines	1,120	760200	Waste or scrap, aluminium	301
841199	Parts of gas turbine engines except turbo-jet/prop	1,025	3920	Plastic plate, sheet, film not cellular, reinforced	208
841182	Gas turbine engines nes of a power > 5000 kW	618	841199	Parts of gas turbine engines except turbo-jet/prop	198
841480	Air or gas compressors, hoods	591	841182	Gas turbine engines nes of a power > 5000 kW	163
841370	Centrifugal pumps nes	559	8421	Liquid, gas centrifuges, filtering, purifying machines	123
392690	Plastic articles nes	547	8413	Pumps for liquids	105
3920	Plastic plate, sheet, film not cellular, reinforced	510	841430	Compressors for refrigerating equipment	101
382490	Chemical preparations including natural products	487	382490	Chemical preparations including natural products	98
730410	Pipes, line, iron or steel, for oil or gas pipelines	470	392690	Plastic articles nes	93



Recent Evolution of trade in ALR list product groups for the Non-oil exporting Arab countries (NOX)

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Arab Region's top traded goods included in ARL II

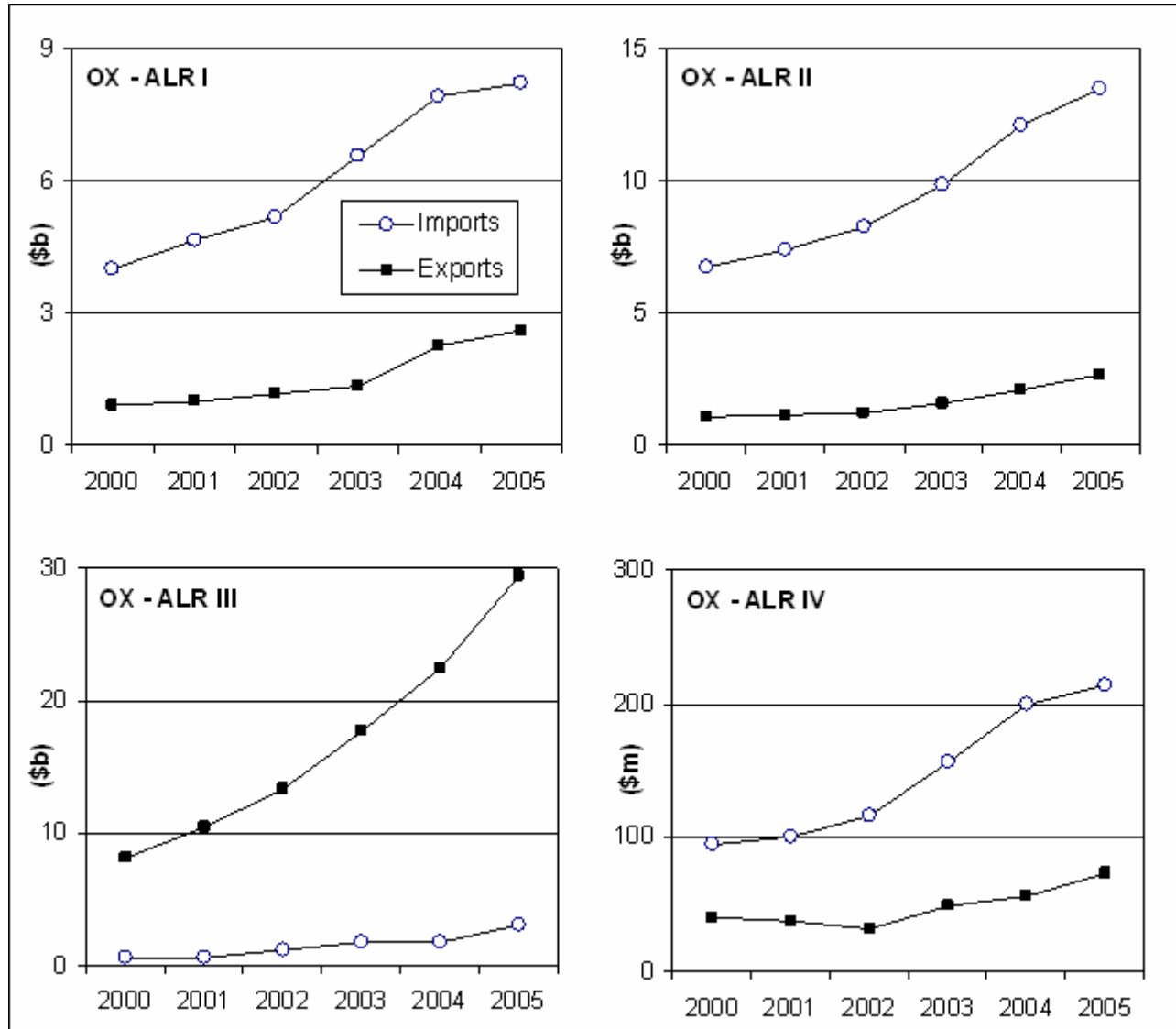
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Top ARL II Imports (2005)			Top ARL II Exports (2005)		
HS Code	Description	Import (\$m)	HS Code	Description	Export (\$m)
8704	Motor vehicles for the transport of goods	4,290	8544	Insulated wire and cable, optical fibre cable	1,943
870322	Automobiles, spark ignition engine of 1000-1500 cc	2,199	281410	Anhydrous ammonia	599
8544	Insulated wire and cable, optical fibre cable	1,623	8536	Electrical switches, connectors, etc, for < 1kV	537
8536	Electrical switches, connectors, etc, for < 1kV	1,546	890190	Cargo vessels other than tanker or refrigerated	415
8415	Air conditioning equipment, machinery	1,542	8415	Air conditioning equipment, machinery	227
848180	Taps, cocks, valves and similar appliances, nes	1,442	8704	Motor vehicles for the transport of goods	167
852812	Colour television receivers	1,438	852812	Colour television receivers	154
8418	Refrigerators, freezers and heat pumps nes	1,198	6910	Ceramic bathroom, kitchen and other sanitary fixtures	149
8702	Public-transport type passenger motor vehicles	1,143	8418	Refrigerators, freezers and heat pumps nes	148
8535	Electrical apparatus for voltage over 1 kV	743	847170	Storage units	112
8450	Household, laundry-type washing machine, washer-drier	458	281512	Sodium hydroxide (caustic soda) in aqueous solution	78

Recent evolution of trade in ARL product groups for the Oil exporting Arab countries (OX)



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Arab Region's top traded goods included in ARL III

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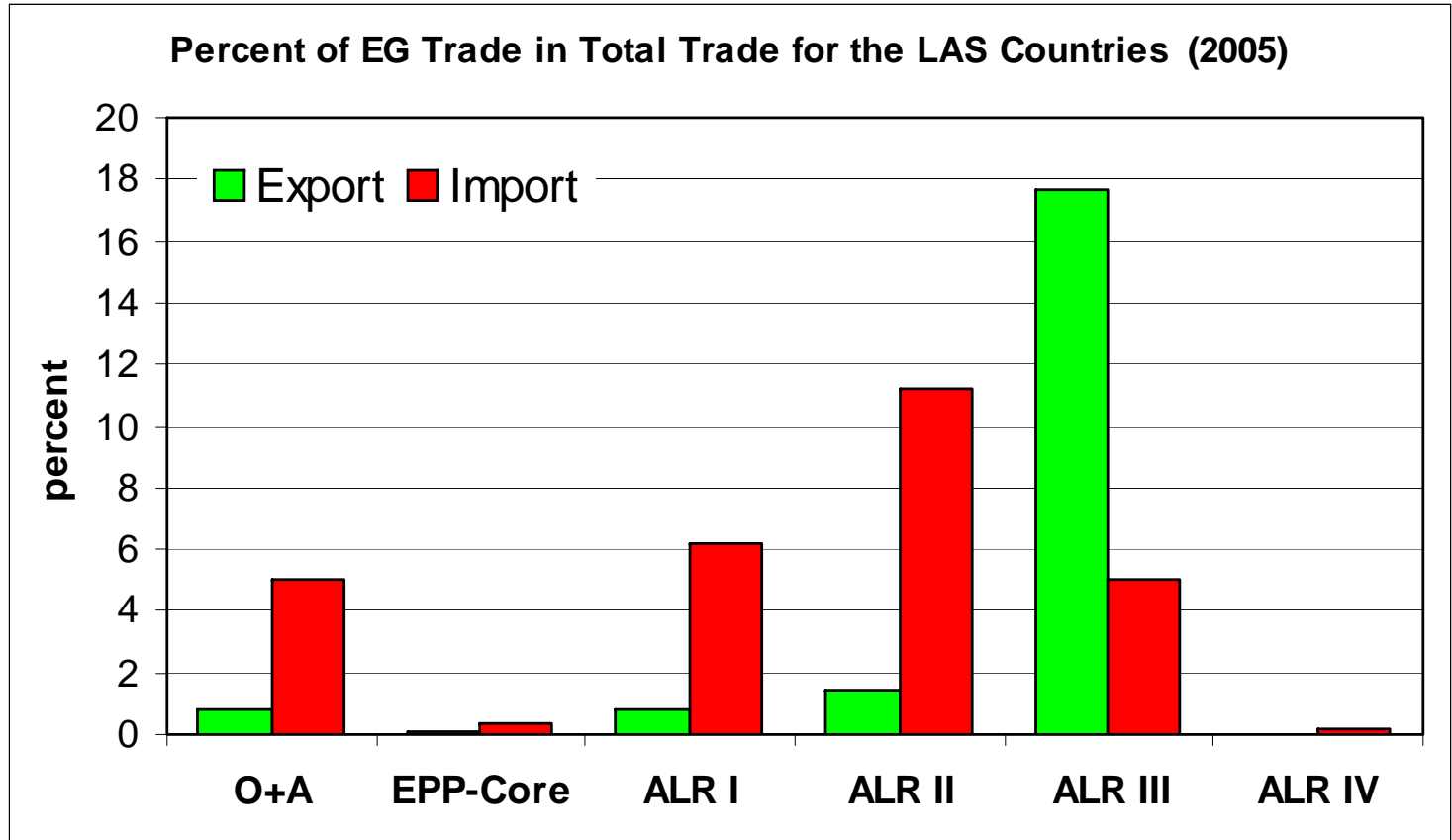
Top ARL III Imports (2005)			Top ARL III Exports (2005)		
HS Code	Description	Import (\$m)	HS Code	Description	Export (\$m)
271000	Petroleum oils other than crude	9,251	271000	Petroleum oils other than crude	45,374
7308	Structures, parts of structures of iron or steel, nes	1,097	271111	Natural gas, liquefied	16,631
271113	Butanes, liquefied	508	271112	Propane, liquefied	8,620
7318	Screws, bolts, nuts, rivets, washers, etc, iron, steel	333	271113	Butanes, liquefied	4,224
9032	Automatic regulating or controlling equipment	314	271121	Natural gas in gaseous state	2,062
903180	Measuring or checking equipment, nes	187	290511	Methyl alcohol	1,285
732111	Cooking appliances for gas fuel, etc, iron or steel	184	7308	Structures, parts of structures of iron or steel, nes	356
7312	Stranded steel wire, cable/etc, no electric insulation	181	7317	Nails, staples, etc, iron/steel, not office stationary	85
271111	Natural gas, liquefied	173	121190	Plants & parts, pharmacy, perfume, insecticide use nes	67
730820	Towers and lattice masts, iron or steel	144	903180	Measuring or checking equipment, nes	55
903289	Automatic regulating/controlling equipment nes	138	9032	Automatic regulating or controlling equipment	45



EG Trade

Trade Flows

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Uncorrected data – see study

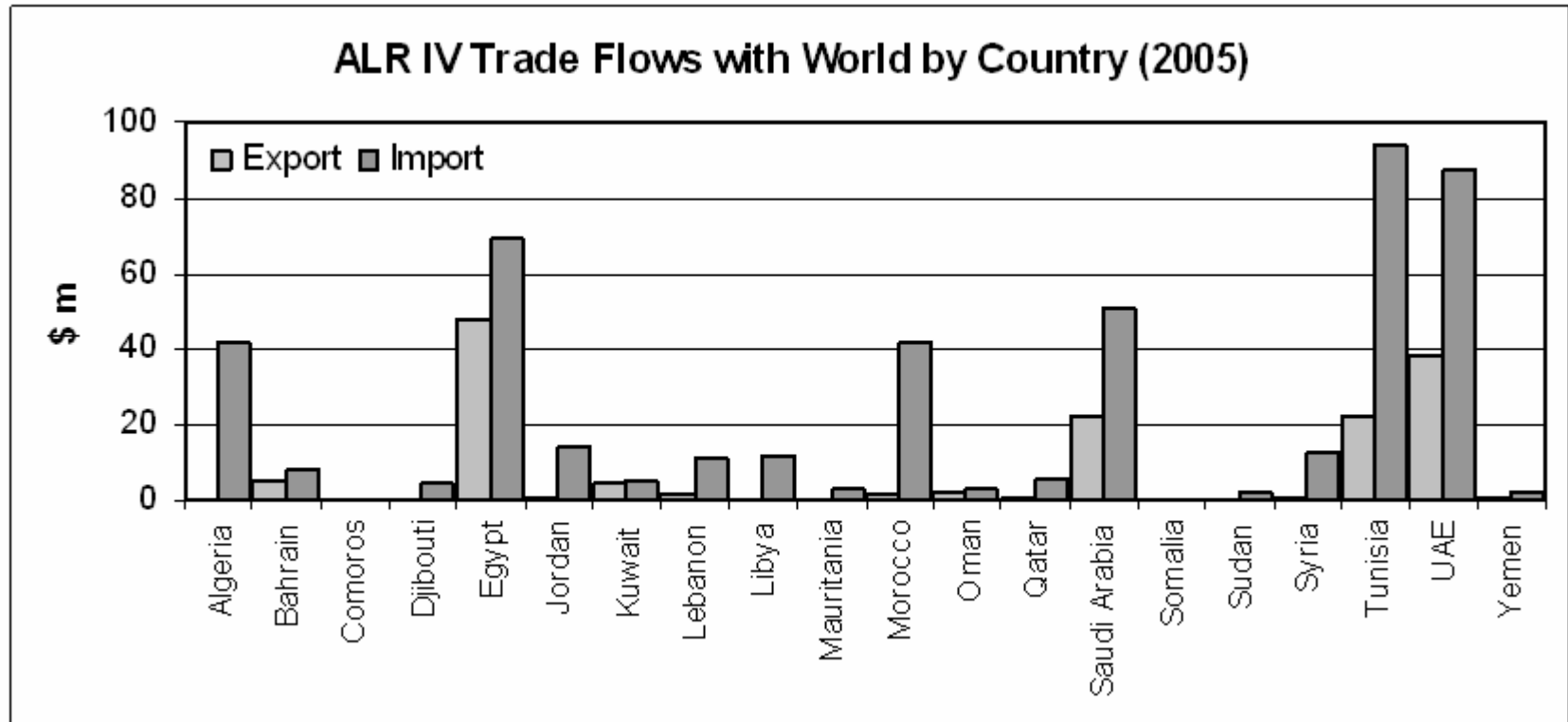
**EGs account for significant shares
of LAS trade in ALR III goods**



ARL IV: Supplementary Goods important for Arab LDCs, linked to environmental, health, safety standards

... but also good (and better) for other Arab Countries

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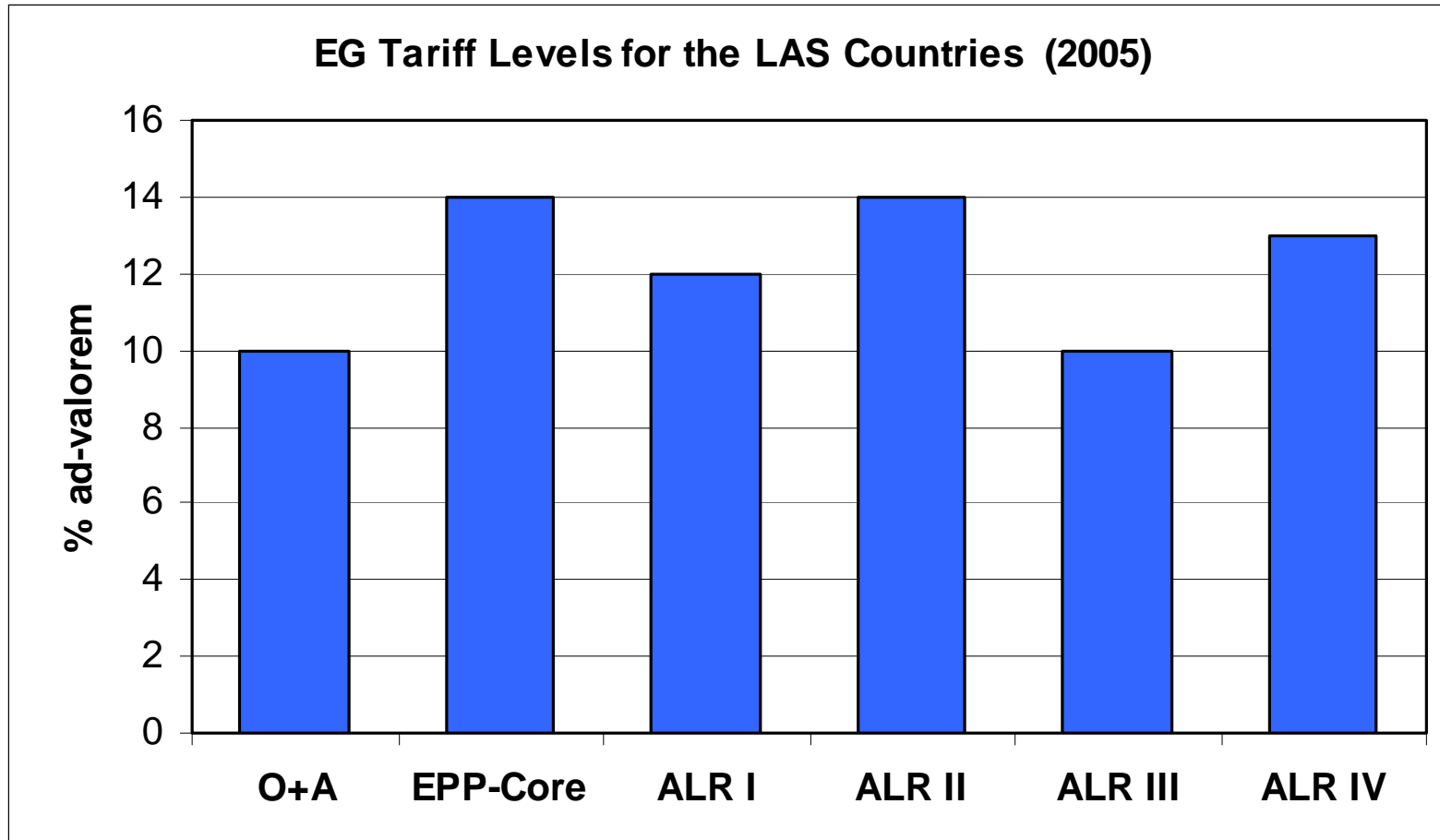
Worn clothing, Plastic waste, **vegetable/textile fibers – paper yarn**, woven fabric
Gulf: **Limestone** materials for manufacture of lime or cement



EG Trade

Tariff Levels

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LAS countries have moderate tariff levels for EGs

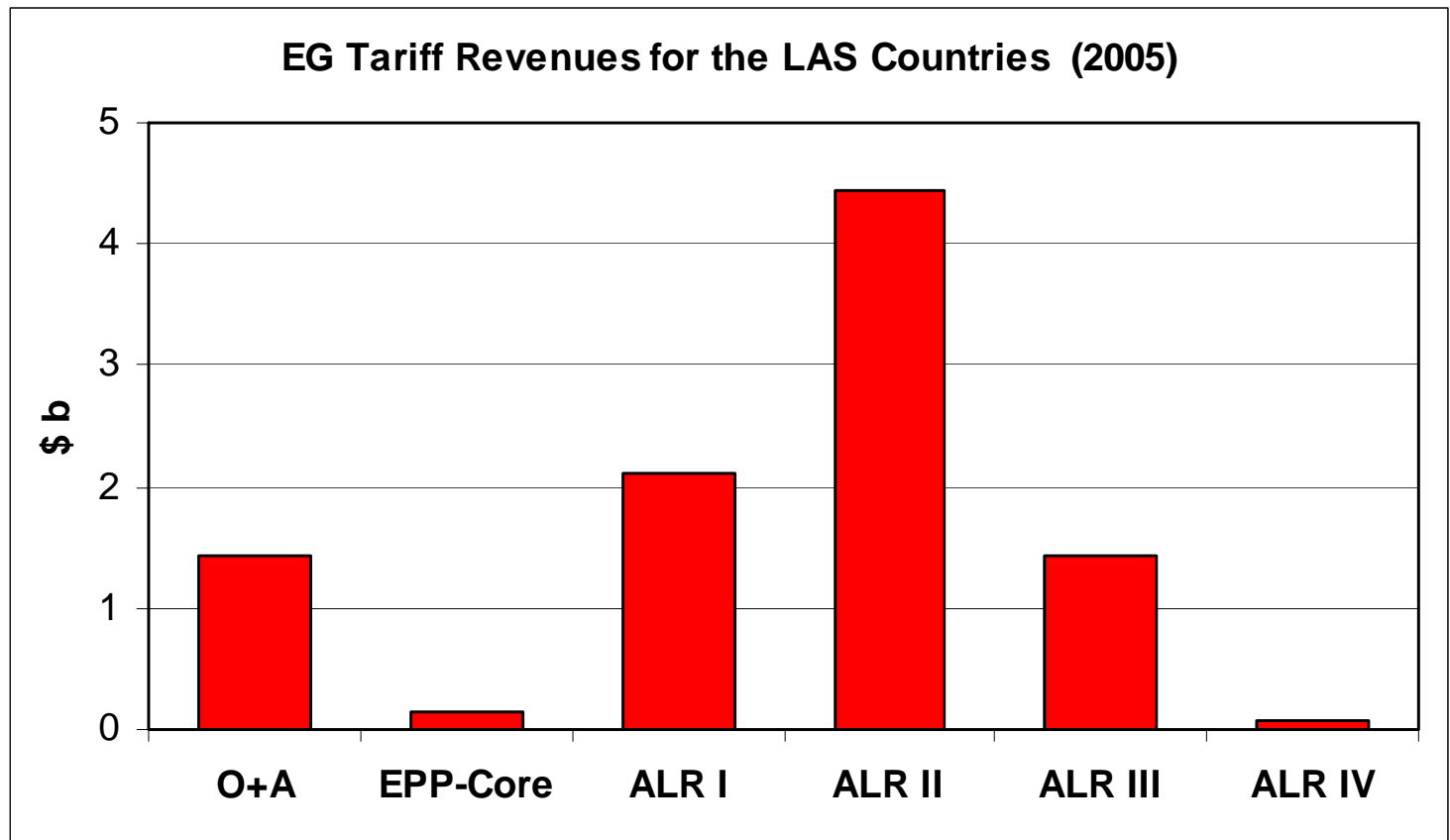


The Outlook for LAS Countries

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Annual tariff revenue loss estimates

Reduced under EG trade liberalisation



Uncorrected data – see study



The Outlook for LAS Countries

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**Please refer to the
Complete Study and
the Country Fact Sheets
For more detailed
and country-specific results**



The Outlook for LAS Countries

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For liberalisation to constitute a net gain, tariff revenue losses will need to be offset by:

- Increases in EG exports due to lower tariffs in other developing countries (developed country tariffs already low) *dynamic exports possible*
- Lower costs for consumers and improved environmental conditions (welfare gain) *yes*
- Lower production costs for producers (many EGs are intermediate goods used in production) *yes*
- Spill-over benefits of increased technology transfer *yes*



The Outlook for LAS Countries

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**Losses easy to measure and predict...
tariff losses are eminent**

**Gains difficult to predict...
only the future can tell**

**May outweigh costs in long run but this can not
be assured**

**Suggests the need for LAS countries to seek
concessions in other areas of Doha Round
negotiations if they agree to EG trade
liberalisation**



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Recommendations for negotiations

- Proceed with EGS negotiations and ensure that products of export interest to LAS are included in liberalisation *make sure key exports on list*
- Phase in tariff reductions over time to reduce shocks (to both government revenue and import competing industries) *for all EGs*



Recommendations for negotiations

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- Seek concessions from developed countries in other areas of the negotiations *Developed countries want to increase their EGS exports to LAS countries, they will make concessions*
- Make sure your concerns are known *Be more vocal in Geneva*



Thank you for your attention

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End of Presentation

11 November 2007