



Strategic Trade Controls: Global Trends & Economic Implications

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Outline

- **Strategic Trade Controls:**
 - I. Economic Development: Trade and Growth
 - II. International/National *Security: WMD Non-Proliferation*
- **I and II - Mutual Exclusion OR Mutual Reinforcement?**

Mission

- **The Center for International Trade and Security at The University of Georgia is dedicated to reducing the threat to human security posed by trade in technologies and materials that underlie weapons of mass destruction (WMD).**
- **At the same time, the Center seeks to promote trade in related commercial technologies and commodities that underpin economic development.**

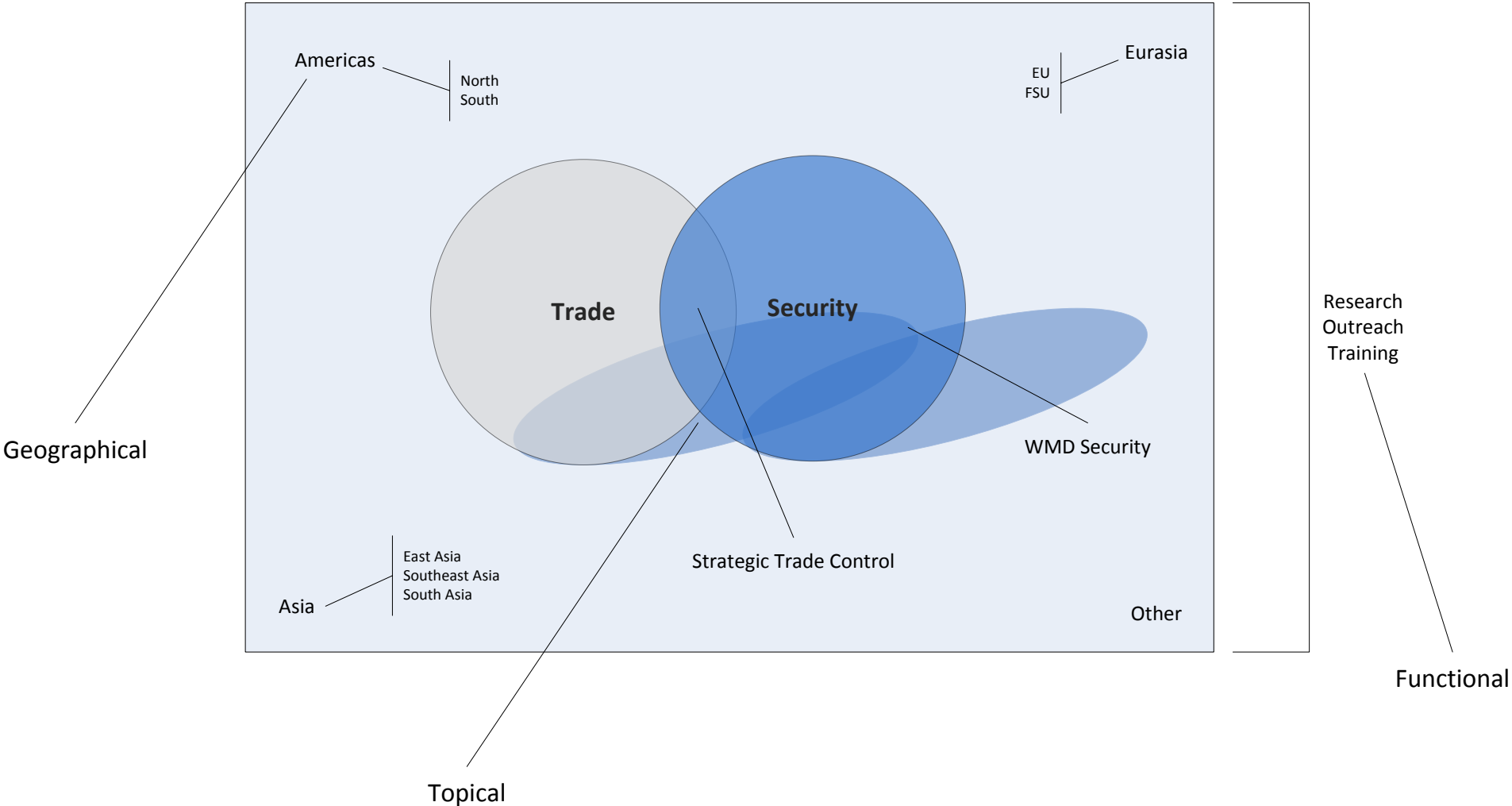


A Unit of the School of Public & International Affairs (SPIA)

Over the past quarter century, CITS has carried its mission and the UGA banner to students, companies and government officials in over seventy nations.

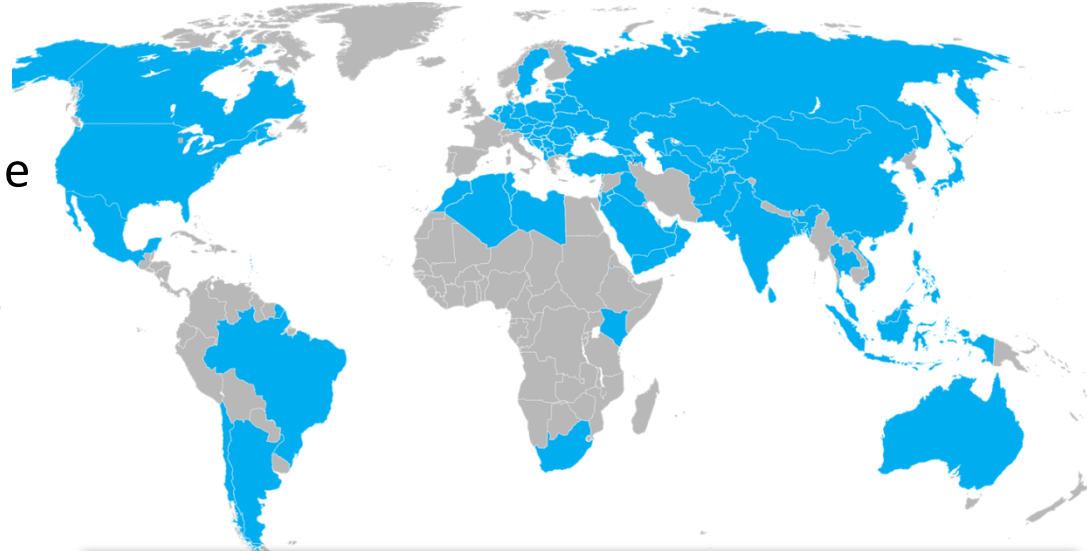
International Trade *and* Security

Concept of Operations



Security & Strategic Trade Management Academy (SSTMA)

- Held twice a year, SSTMA provides a comprehensive 2-week overview of strategic trade control and CBRN security concepts, issues, and standards from an international perspective.
- Established in 2006, the SSTMA has trained over 500 officials from 50 countries.
- SSTMA graduates can collect continuing education credit from the University's Center for Continuing Education.
- The majority of attendees have been generously supported by the US Department of State's EXBS Program.



A screenshot of the University of Georgia website for the SSTMA program. The page features the University of Georgia logo and the Center for International Trade & Security. The main heading is "Security & Strategic Trade Management Academy". Below the heading, there is a paragraph describing the program: "The CITS Security & Strategic Trade Management Academy is a comprehensive overview of the theory and practice of strategic trade control, designed with an international perspective for trade officials from around the world. Registration is now open for the spring 2013 session, taking place March 25 through April 5. The registration form (PDF) is available online. Once filled out, the form should be submitted to Christopher Tucker, the program coordinator." There is a "More" link below the paragraph. To the right of the text is a photograph of a group of people sitting at a long table in a conference room. At the bottom of the page, there are navigation links: "ABOUT", "PROGRAMS", "EVENTS", "STUDENTS", and "GIVING".

Relationship between Economics & Strategic Trade Controls

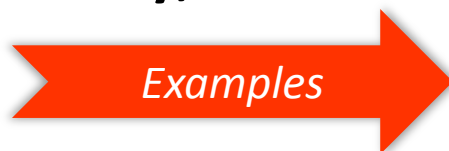
- In developing strategic trade controls, states often face an ***apparent*** dilemma:
 - ➔ ***security at the expense of economic development***
- Some states only began to examine this seeming quandry following the adoption of UN Security Council Resolution 1540, which requires states, in part, to:
 - ➔ “establish, develop, review and maintain appropriate effective national export and trans-shipment controls over materials related to nuclear, chemical, and biological weapons and their means of delivery.”

Relationship between Economics & Strategic Trade Controls (cont.)

- Most of these materials (i.e., “strategic) are so-called “dual-use” items and technologies and have mainly legitimate and ***economically vital*** commercial uses. Therefore, the mere suggestion of control implies economic limitations.
- To some degree, the *Resolution* itself anticipates these anxieties, affirming in the preamble that the
➔ “prevention of proliferation of nuclear, chemical and biological weapons **should not hamper** international cooperation in materials, equipment and technology for peaceful purposes.”

What are Strategic Trade “Controls” (STC)?

Most countries have some form of trade licensing regime (e.g., public health and safety, quotas).



“At present, licences are required for exports of 24 categories of products, including certain agricultural and fish items.”
 - *Trade Policy Review: Turkey, “Trade Policies and Practices by Measure,”* February 2012, World Trade Organization

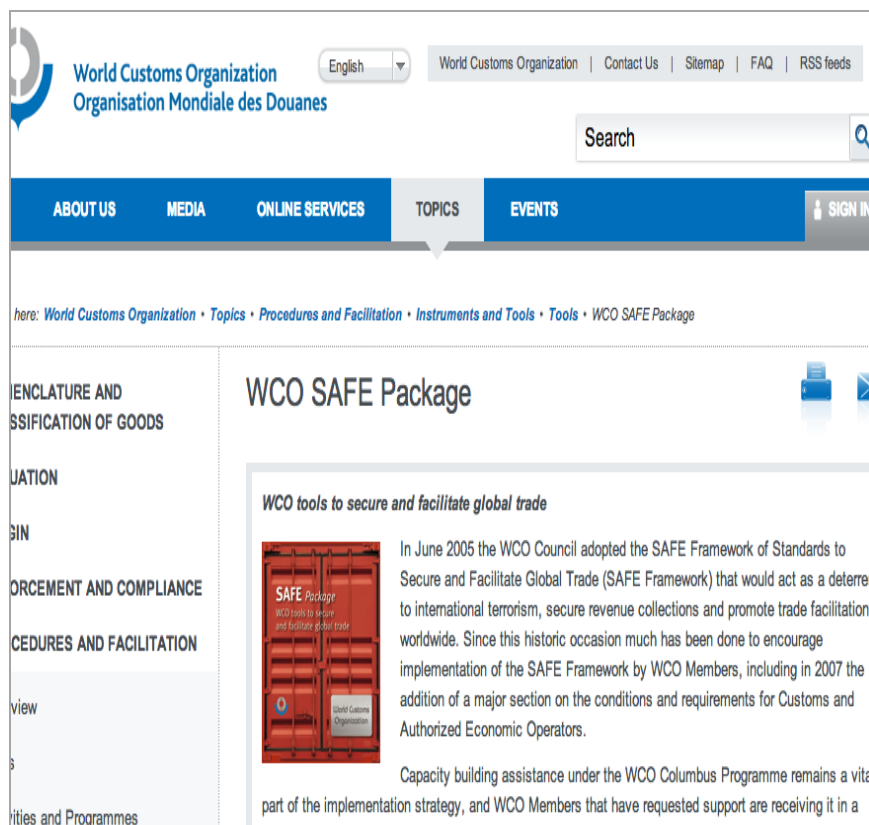
STCs are a category within such licensing regimes.



Import Licensing Gateway, WTO

Positively defined: STC is a system of laws and procedures that require the *licensing of trade in certain items* (e.g., dual-use) for reasons of national security, foreign policy, international obligations, and/or economic policy.

What Do Strategic Trade Controls Really Require ?



SAFE Framework, WCO

WCO SAFE Framework Requires:

- Integrated Supply-Chain Management
- Authorized Economic Operator
- Deployment of scanning/imaging equipment
- Data element maintenance
- Mutual Recognition

ALL these are established best practices in STC implementation & enforcement for many years.

Negatively defined: STC *do not prohibit trade* in strategic items, but merely require that they be **licensed (monitored)** 9

What are Strategic (Dual-Use) Items?

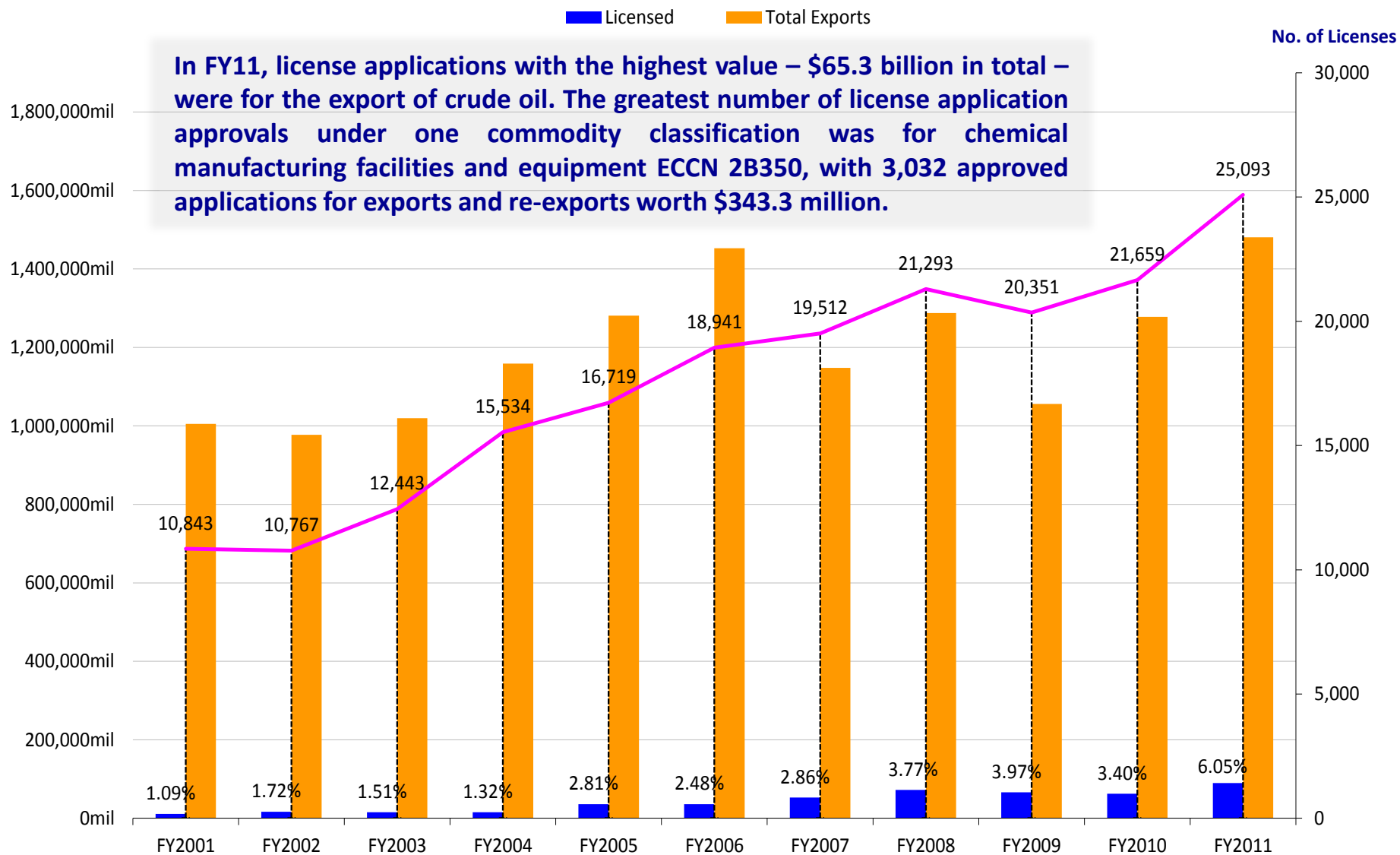
Example: EU Dual-Use List

- **Category 0 – Nuclear Materials, Facilities, and Equipment**
- **Category 1 – Materials, Chemicals, “Microorganisms” & “Toxins”**
- **Category 2 – Materials Processing**
- **Category 3 – Electronics**
- **Category 4 – Computers**
- **Category 5 – Telecommunications and “Information Security”**
- **Category 6 – Sensors and Lasers**
- **Category 7 – Navigation and Avionics**
- **Category 8 – Marine**
- **Category 9 – Aerospace and Propulsion**

Dual-use = products, technologies and materials that simultaneously have civilian and military (WMD) applications.

Context: Total U.S. Exports* v/s Licensed Dual-Use Exports: 2001-2011

(*Total Exports of Goods, not including services)



Licensing Data

The European Union



Brussels, 17.1.2013
SWD(2013) 7 final

COMMISSION STAFF WORKING DOCUMENT

Strategic export controls: ensuring security and competitiveness in a changing world - A report on the public consultation launched under the Green Paper COM(2011) 393

- “A relatively low percentage of exports are subject to compulsory formal export authorization: based on licenses granted, it can be roughly estimated that licensed dual-use exports of goods represent approximately 1 to 2 % of exports out of the EU.”

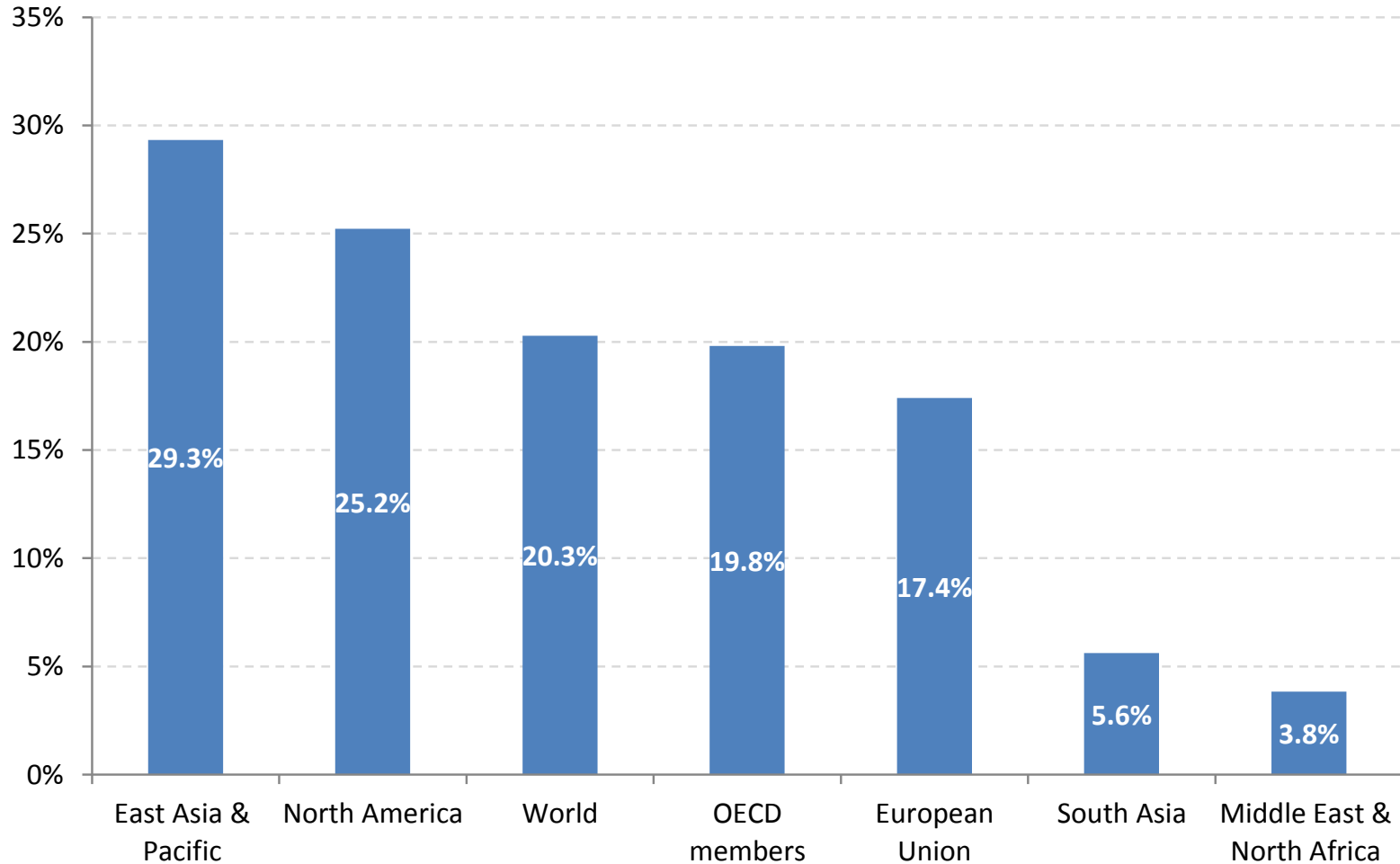
Advanced Technology Products (ATP)

US Census Bureau & UN Comtrade

Technology Field	Example of Products
Biotechnology	Vaccines for human medicine, vaccines for veterinary medicine
Life Sciences	Magnetic resonance imaging apparatus, electrocardiographs, artificial joints
Opto-Electronics	Rangefinders, stereoscopic microscopes, lasers other than laser diodes
Information & Communications	Personal computers, facsimile machines, communications satellites, camcorders
Electronics	Particle accelerators, semiconductors, smart cards
Flexible Manufacturing	Industrial robots, thermostats, semiconductor manufacturing equipment
Advanced Materials	Optical fiber cables
Aerospace	Turbojet aircraft engines, new multi-engine airplanes
Weapons	Guided missiles, self-propelled artillery weapons
Nuclear Technology	Nuclear reactors, uranium compounds enriched in U235

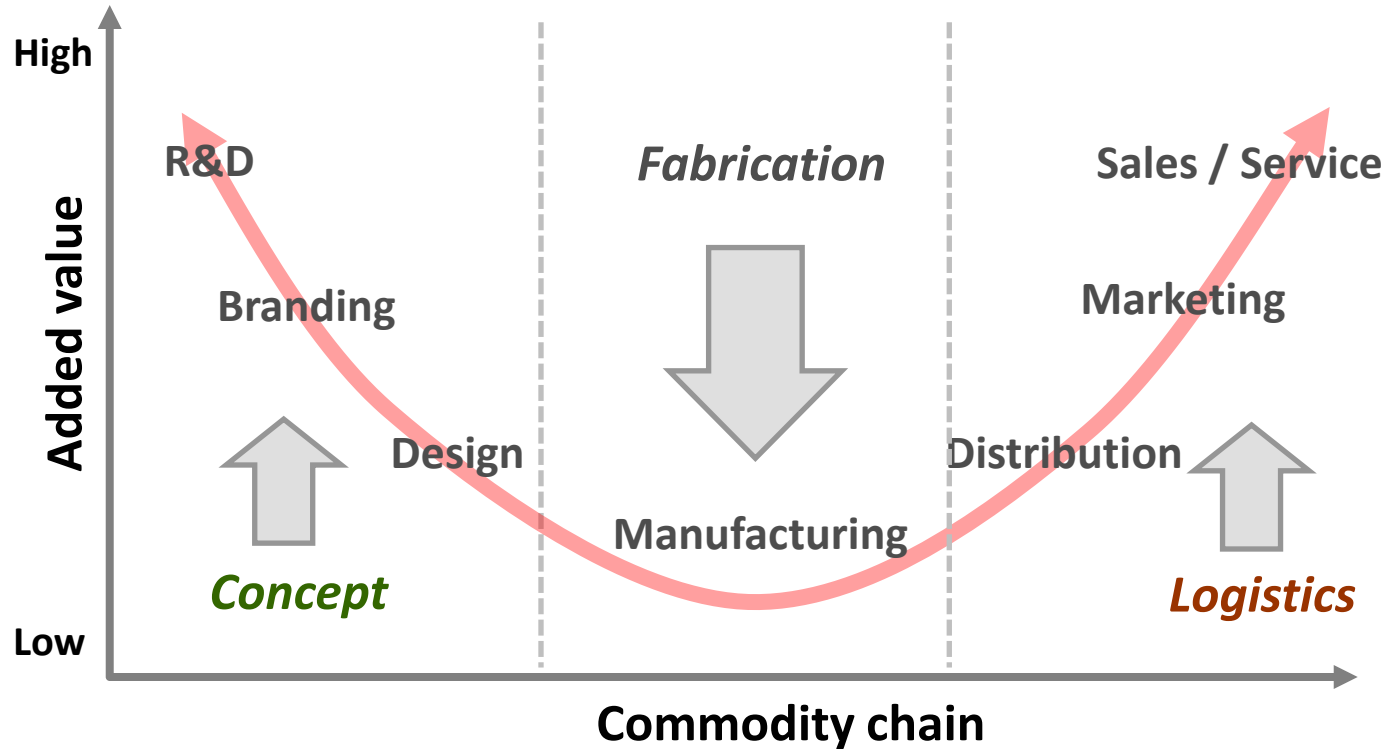
High-Technology Exports: Select Regions, 2000-2011

(% of manufactured exports)



Commodity Chains and Added Value

Technology Transfer through Trade is a Key Driver in Rising in Value Added Economic Activity



“In the development of global value chains, some observers have depicted this process not as a linear one, but rather as a “Smiley Face” where the center of value creation in the manufacture or assembly of a product is flanked on either side by higher value-added services activities.”

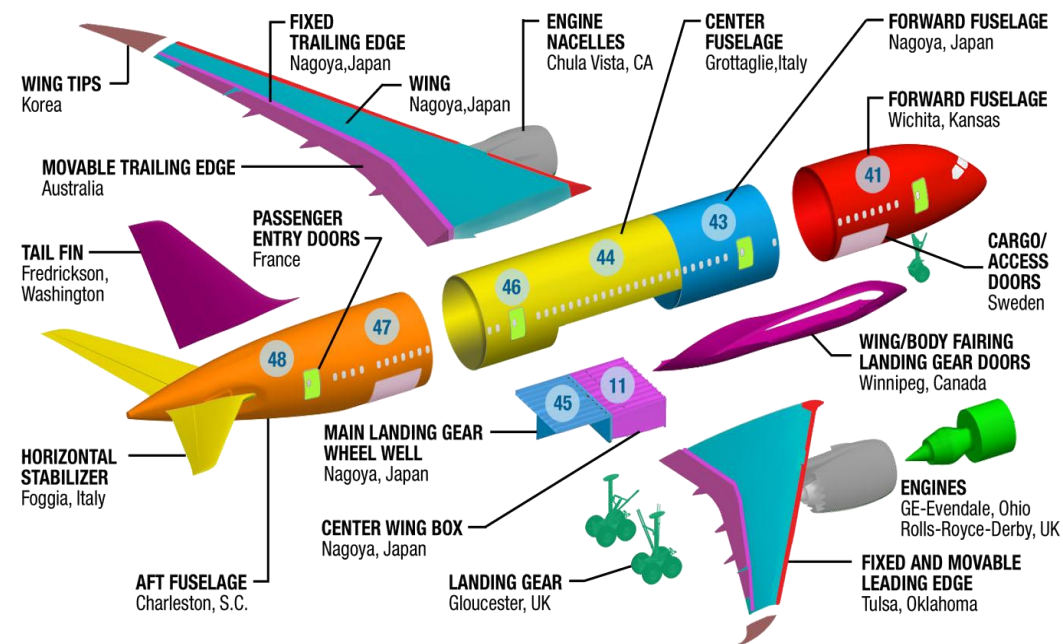
- The Shifting Geography of Global Value Chains: Implications for Developing Countries and Trade Policy, World Economic Forum, 2012

Vertical Specialization (Fragmentation of Production): Boeing 787 Example

“An important phenomenon over the last half century has been the increase in the trade in parts and components, and the related international fragmentation of production accounting for a large part of the superior growth of trade compared with GDP.”

THE COMPANIES

U.S.	CANADA	AUSTRALIA	JAPAN	KOREA	EUROPE
Boeing	Boeing	Boeing	Kawasaki	KAL-ASD	Messier-Dowty
Spirit	Messier-Dowty		Mitsubishi		Rolls-Royce
Vought			Fuji		Latecoere
GE					Alenia
Goodrich					Saab



World Trade Report, 2009 (WTO)

Source: The Boeing Company

High Technology Supply Chains Require Relative Regulatory Symmetry Amongst Suppliers.

Relationship between Economics & Strategic Trade Controls (cont.)

- **Now that all nations are expected to impose similar types of trade controls, new questions are being asked about whether the apparent economic trade-off is real and how it will impact national development objectives.**
- **Remarkably, the *exact* nature of the relation between trade controls and economic vitality has not been rigorously examined to date.**
- **In order to address concerns that economic development is negatively affected by adopting controls, we must examine how trade controls impact a national economy.**

UGA Study (2010): The Economic Impact of Adopting STCs

- Unlike earlier studies, the study examined trade controls from **both** importing & exporting perspectives
- Particular sensitivity to **imports as a measure of technology transfer**
- Technology transfer is an indispensable metric for understanding the reluctance to adopt strategic trade controls:
 - ***concerns regarding technology transfer denial issues***
 - ***concerns about curbs on national economic development***

Assessing the Economic Impact of Adopting Strategic Trade Controls



U.S. Department of State
Bureau of International Security and Nonproliferation
Office of Export Cooperation

By Scott Jones and Johannes Karreth

December 2010

Prepared by The University of Georgia
Center for International Trade and Security
as a team member of
Science Applications International Corporation
under Department of State Task Order S-AQMMA-08-F-6920

<http://www.state.gov/documents/organization/156673.pdf>

The Study (cont.)

- Two hypotheses were tested using data on trade in advanced technology products (ATP) to and from the United States and the EU-15.

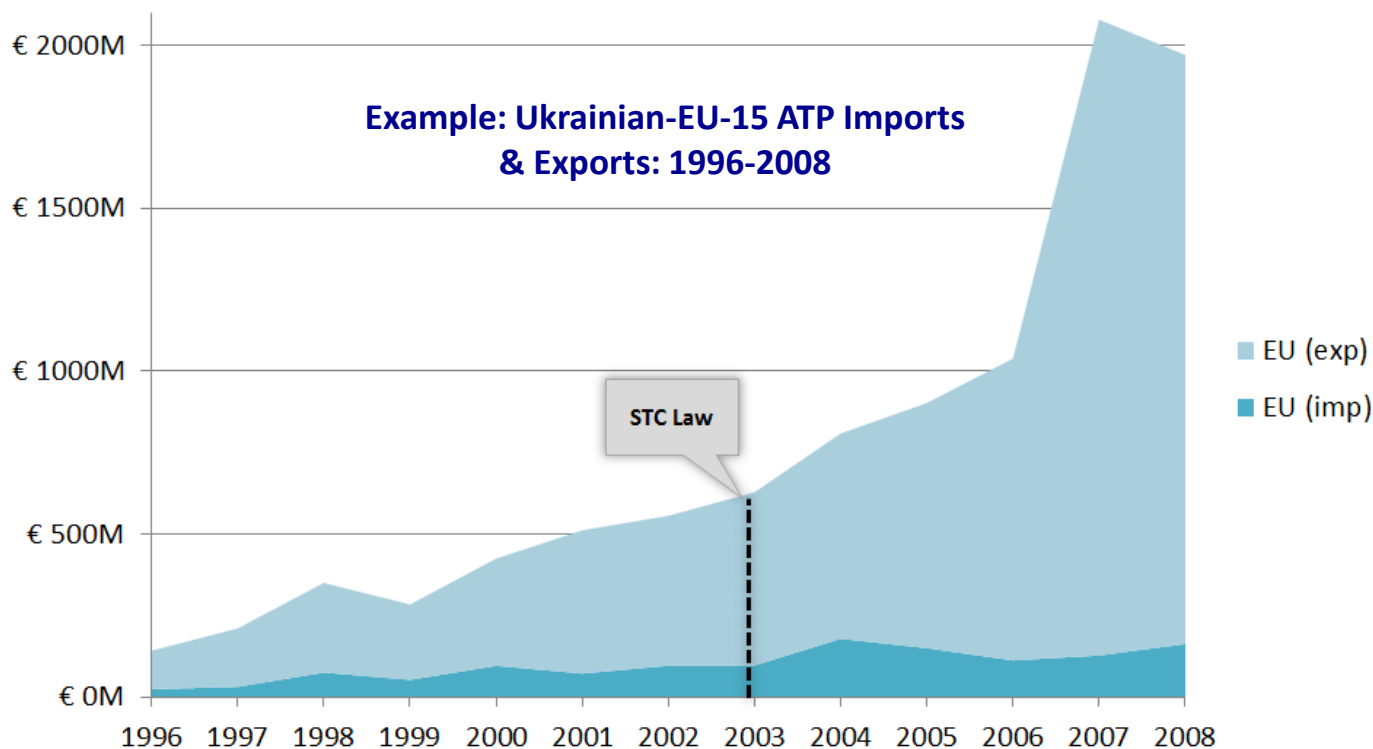
** Why ATP? Long, complicated story having to do with the lack of a Rosetta Stone for HS and ECCNs.*

Hypothesis 1: When countries introduce comprehensive export control systems, they regularly experience a decline in exports and imports of technology products, holding all else constant.

Hypothesis 2: When countries introduce comprehensive export control systems, they do not experience any significant change in exports and imports of technology products, holding all else constant.

The Study: Results

- *In the available sample of countries* Trade in ATP consistently demonstrates that trade was not negatively impacted by the enactment of strategic trade controls legislation.
- This finding is robust in the univariate development of ATP trade and using several specifications with potential predictors of ATP import/export volumes.



The Study: Findings

STCs may provide assurances to:

- Exporting government (e.g., licensed trade)
- Supply chains
- Investors:
 - *IP Protection*
 - *Unsanctioned (re-)transfers*

Technology Transfer and Exporter Assurances

Importance of export control (contd.)

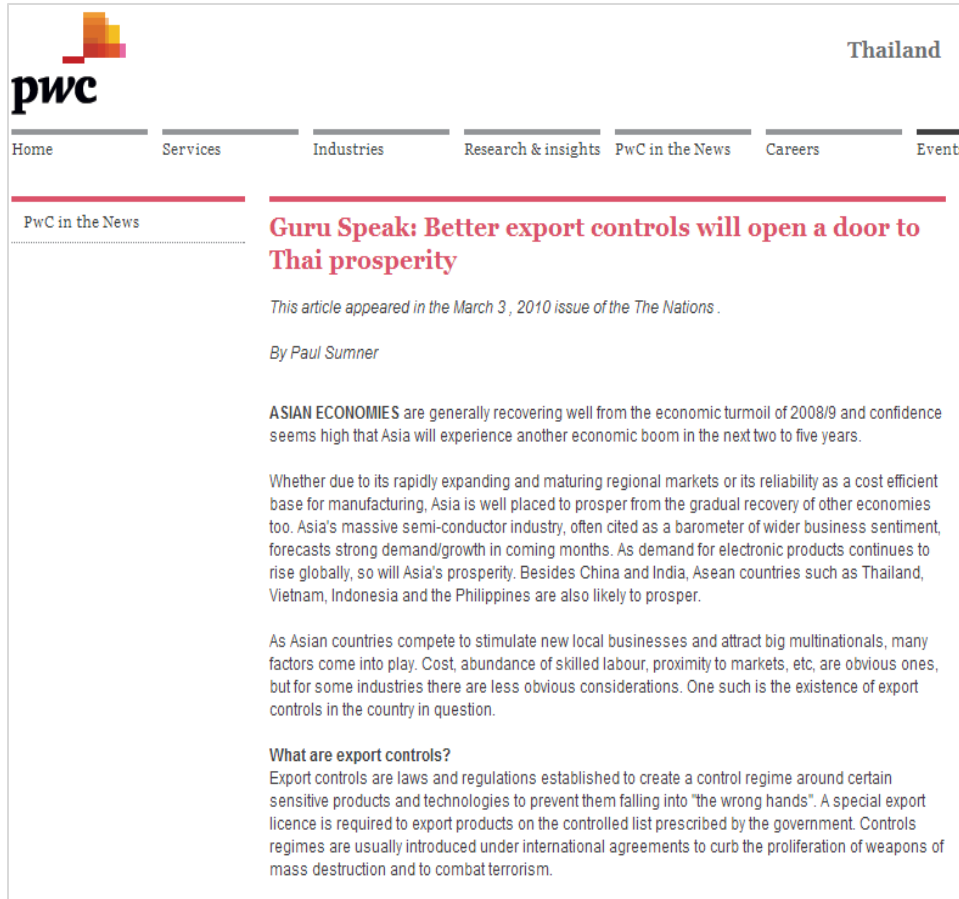
Effective export control secures and facilitates global trade

- Good reputation as a responsible country with effective export control earns trust from trade partner countries
- Facilitates the issuance of export license approval to your country



- Export control is not only a responsibility but can also be a benefit for your country and industry

STCs and Investor Sentiment



The screenshot shows the PwC Thailand website. At the top left is the PwC logo. To the right, it says "Thailand". Below the logo is a navigation menu with links for Home, Services, Industries, Research & insights, PwC in the News, Careers, and Events. The "PwC in the News" link is highlighted. Below the navigation is a sub-header "PwC in the News" and a main article title: "Guru Speak: Better export controls will open a door to Thai prosperity". The article text discusses the economic recovery of Asia and the impact of export controls.

pwc

Thailand

Home Services Industries Research & insights PwC in the News Careers Events

PwC in the News

Guru Speak: Better export controls will open a door to Thai prosperity

This article appeared in the March 3, 2010 issue of the The Nations.

By Paul Sumner

ASIAN ECONOMIES are generally recovering well from the economic turmoil of 2008/9 and confidence seems high that Asia will experience another economic boom in the next two to five years.

Whether due to its rapidly expanding and maturing regional markets or its reliability as a cost efficient base for manufacturing, Asia is well placed to prosper from the gradual recovery of other economies too. Asia's massive semi-conductor industry, often cited as a barometer of wider business sentiment, forecasts strong demand/growth in coming months. As demand for electronic products continues to rise globally, so will Asia's prosperity. Besides China and India, Asean countries such as Thailand, Vietnam, Indonesia and the Philippines are also likely to prosper.

As Asian countries compete to stimulate new local businesses and attract big multinationals, many factors come into play. Cost, abundance of skilled labour, proximity to markets, etc, are obvious ones, but for some industries there are less obvious considerations. One such is the existence of export controls in the country in question.

What are export controls?

Export controls are laws and regulations established to create a control regime around certain sensitive products and technologies to prevent them falling into "the wrong hands". A special export licence is required to export products on the controlled list prescribed by the government. Controls regimes are usually introduced under international agreements to curb the proliferation of weapons of mass destruction and to combat terrorism.

“.... when multinationals in an affected industry want to move capabilities such as manufacturing and R&D to Asia from another country, they often consider the associated security issues. The existence of an export-controls regime in a country is therefore often a key factor in their choice of location.”

Case Study: Mexico

Economic Growth and the Development of STC

2006 – President Calderón initiated economic plan focused on hi-tech, export-driven growth

➔ Remarkable parallel effort to develop a comprehensive STC system in less than 18 months

- Jan 2011 – Mexico became the 41st member state of the Wassenaar Arrangement (WA).
- Nov 2011 – Mexico joined NSG
- 2013 – will possibly join AG

II. INTERÉS DE LA INDUSTRIA EN INGRESO A WASSENAAR

- Diversas empresas han contactado a la Secretaría de Economía buscando promover el ingreso de México al Acuerdo de Wassenaar, por considerar que les permitiría aumentar significativamente sus inversiones en el país.

Hicieron **contactos formales con la industria** para evaluar su interés y los beneficios en materia de inversiones y desarrollo que tendrían al entrar el Régimen.

2010		2011
Junio	Octubre	Junio
 <p>Lockheed Martin Pratt & Whitney Honeywell GE</p>	 <p>Labinal Groupe SAFRAN ZODIAC AEROSPACE EATON TEXTRON</p>	<ul style="list-style-type: none">• Asociación Mexicana de la Industria Automotriz (AMIA),• Industria Nacional de Autopartes (INA)• Federación Mexicana de la Industria Aeroespacial (FEMIA), y• Cámara Nacional de la Industria Electrónica y de Telecomunicaciones (CANIETI) entre otras, se manifestaron por escrito a favor del ingreso de México a Wassenaar.
y otras empresas de la industria aeroespacial	y otras empresas de la industria electrónica	

“Industry pushed GOM hard to adopt STC for FDI attraction purposes.”

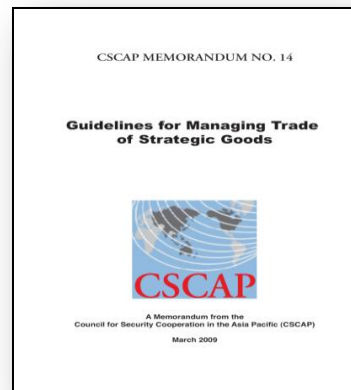
- Presentation by the Ministry of Economy, Mexico City, September 2011

An increasingly high technology-capable private sector emphasized the critical role STC play in economic growth, including via technology transfers and foreign direct investment (FDI).

Regional Example: ARF and CSCAP - ICPs



**CO-CHAIRS' SUMMARY OF
ASEAN REGIONAL FORUM
(ARF) EXPORT LICENSING
EXPERTS MEETING
Singapore, 17-18 Nov
2005**



**CSCAP Memo:
Guidelines for Managing
Trade of Strategic Goods
March 2009**

AGENDA ITEM 6: HOW TO FACILITATE LEGITIMATE TRADE IN EXPORT CONTROLS

Singapore presented a system (*Approved Company Scheme*) which recognizes companies and organizations with an effective internal compliance program.

Participants discussed

- the benefits and challenges of an **Internal Compliance Program** and the means to effectively develop such a program.
- the **use of internal company watch lists in their licence processing** and other issues related to penalties on non-compliance.
- the benefits of bulk permits in the facilitation of legitimate trade and the importance of *carefully balancing trade and security interests*.

- Governments & industry should create *incentives* to encourage compliance with strategic trade systems *to promote trade*.
- All parties should seek voluntary compliance by industry, including encouragement of relevant companies to establish ICPs that incorporate checks on *end users & end uses* of concern, and
- governments should be ready to *advise and assist* them in that process.