

Changing nature of South-South trade: Implications for world trade prospects

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*The views expressed in this presentation are those of the author and do not necessarily reflect the views of the UNCTAD Secretariat or its members.

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

A large, faint world map is visible in the background of the slide, centered behind the main title.

South-South trade* expansion: A big picture view

The United Nations logo, featuring a world map surrounded by olive branches, is positioned in the bottom left corner of the slide.

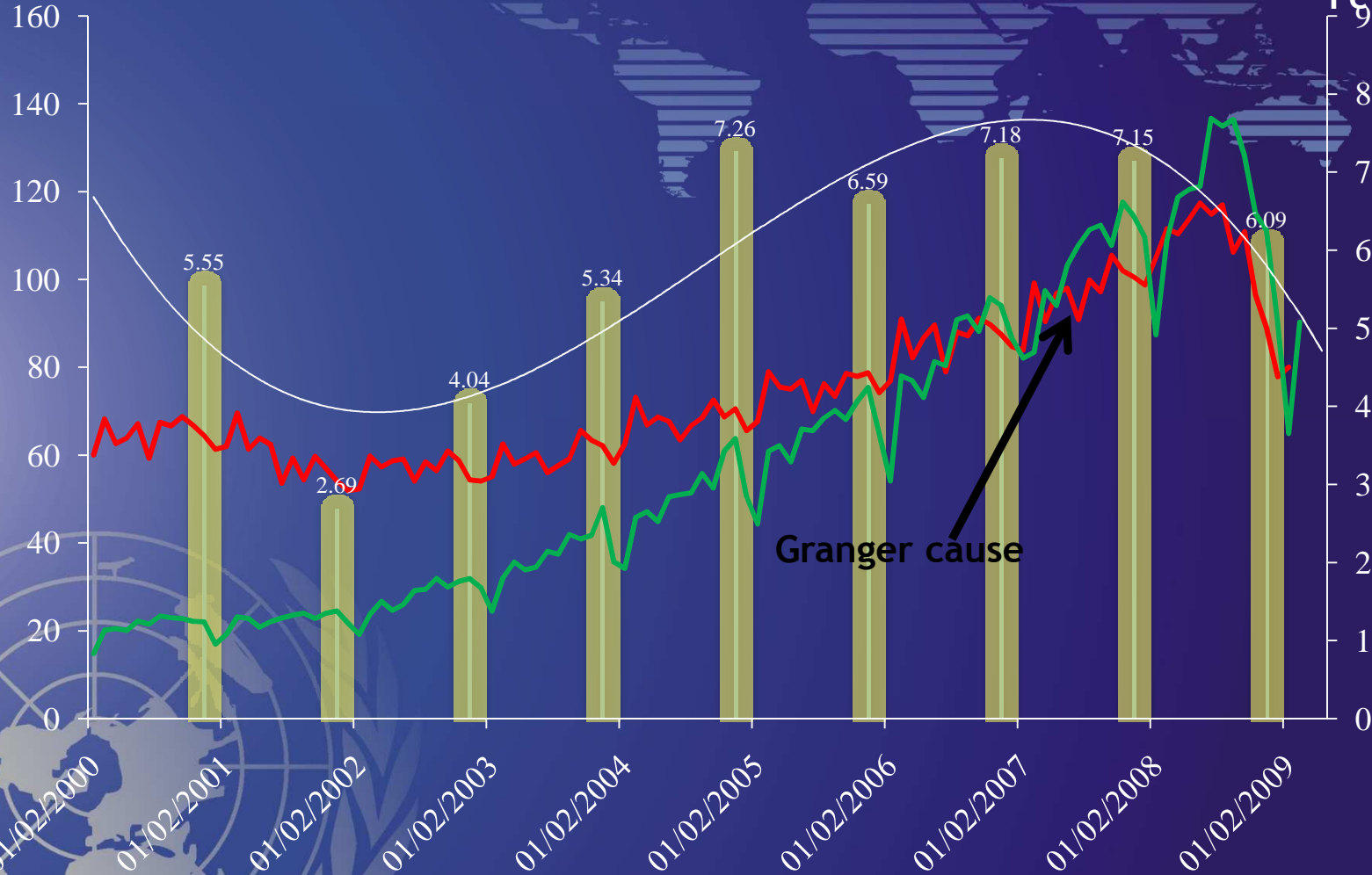
*Merchandise export for this study!

Synchronized downturn

Trade and Growth

\$ billions

Percent



Ding_Output US_imp China_exp Poly. (Ding_Output)

Source: UNCTAD, Bloomberg

LINK factors....

South-South exports

(Developing countries exports to North and South)

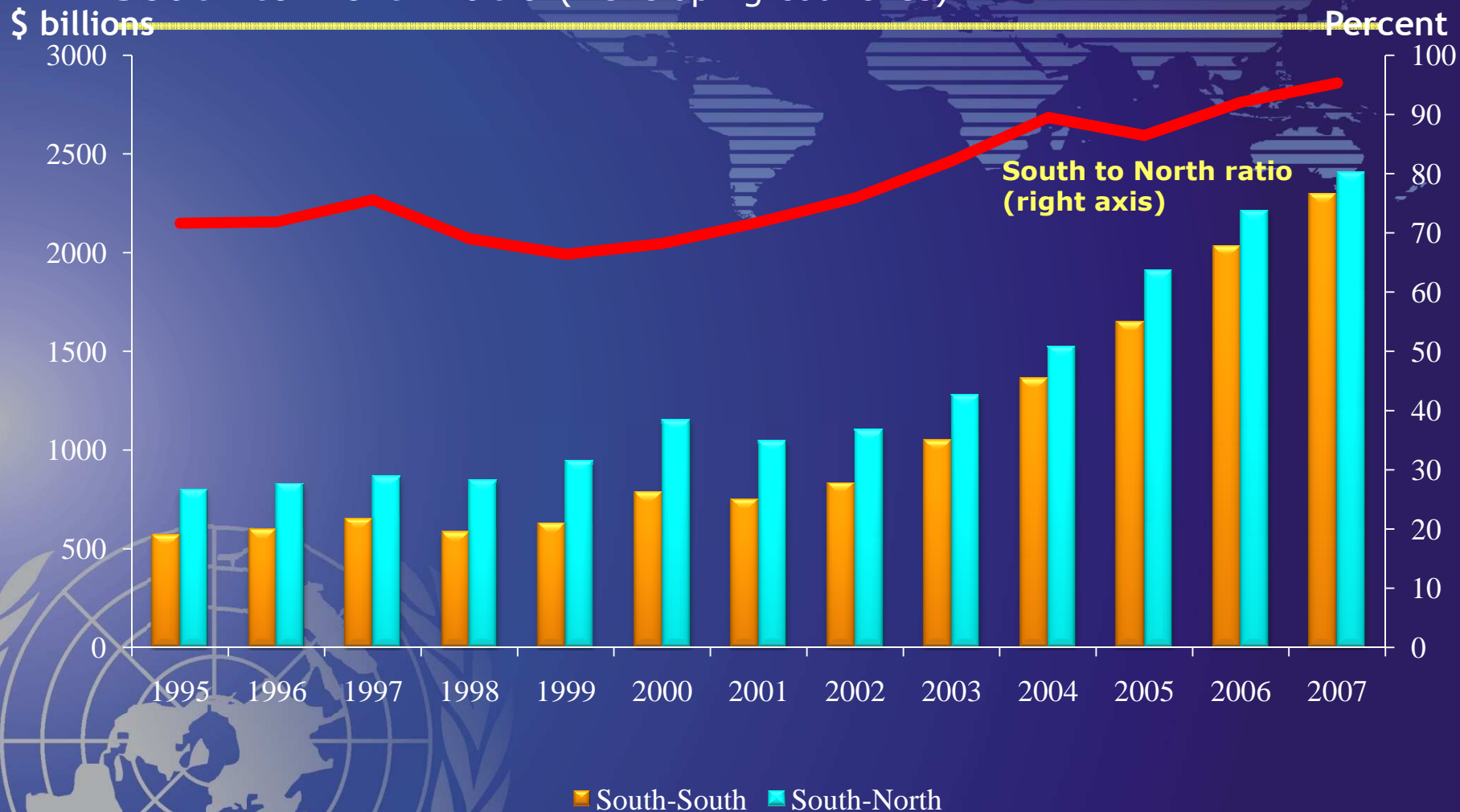
\$ billions



Source: UNCTAD

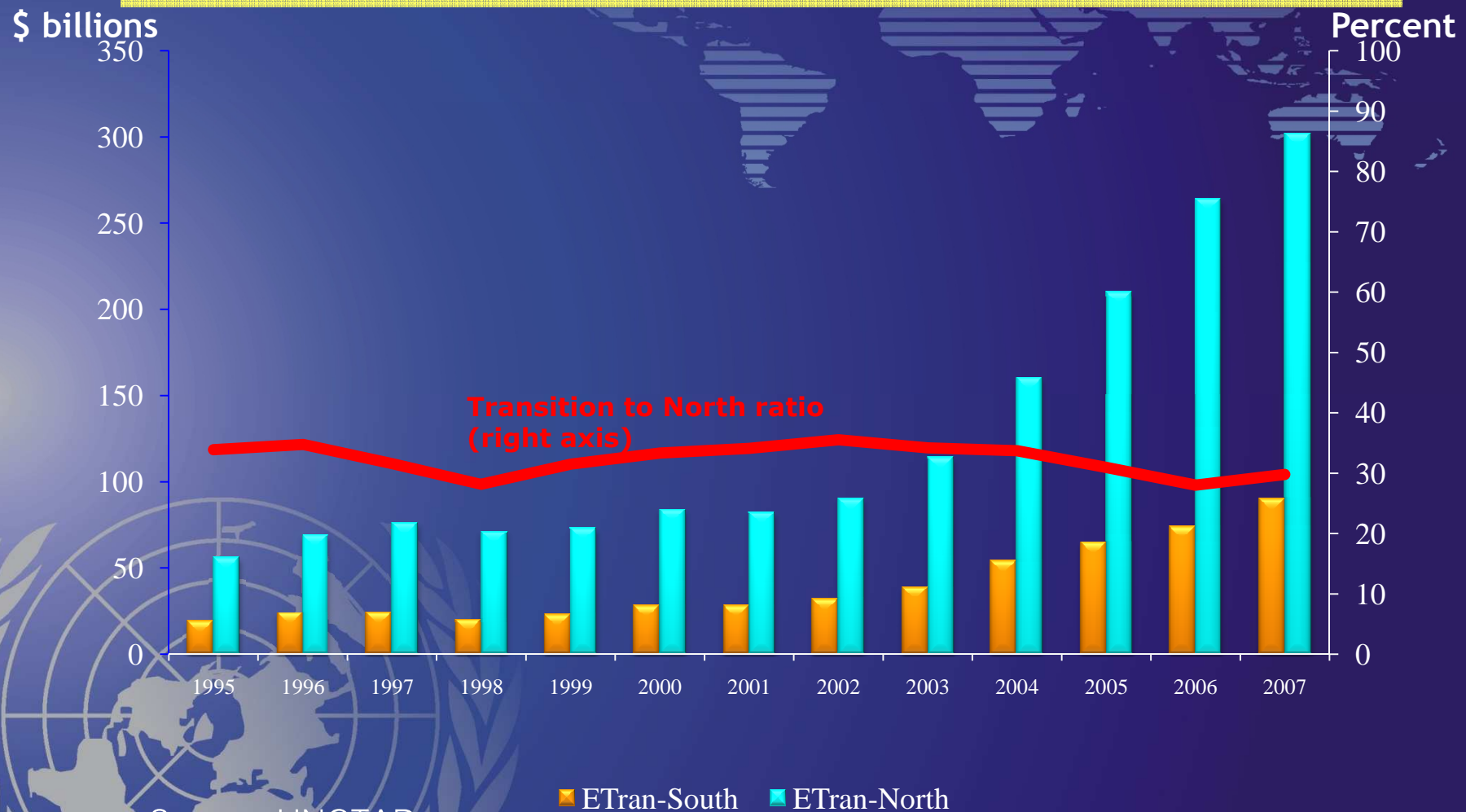
South-South exports:

South to North ratio (Developing countries)



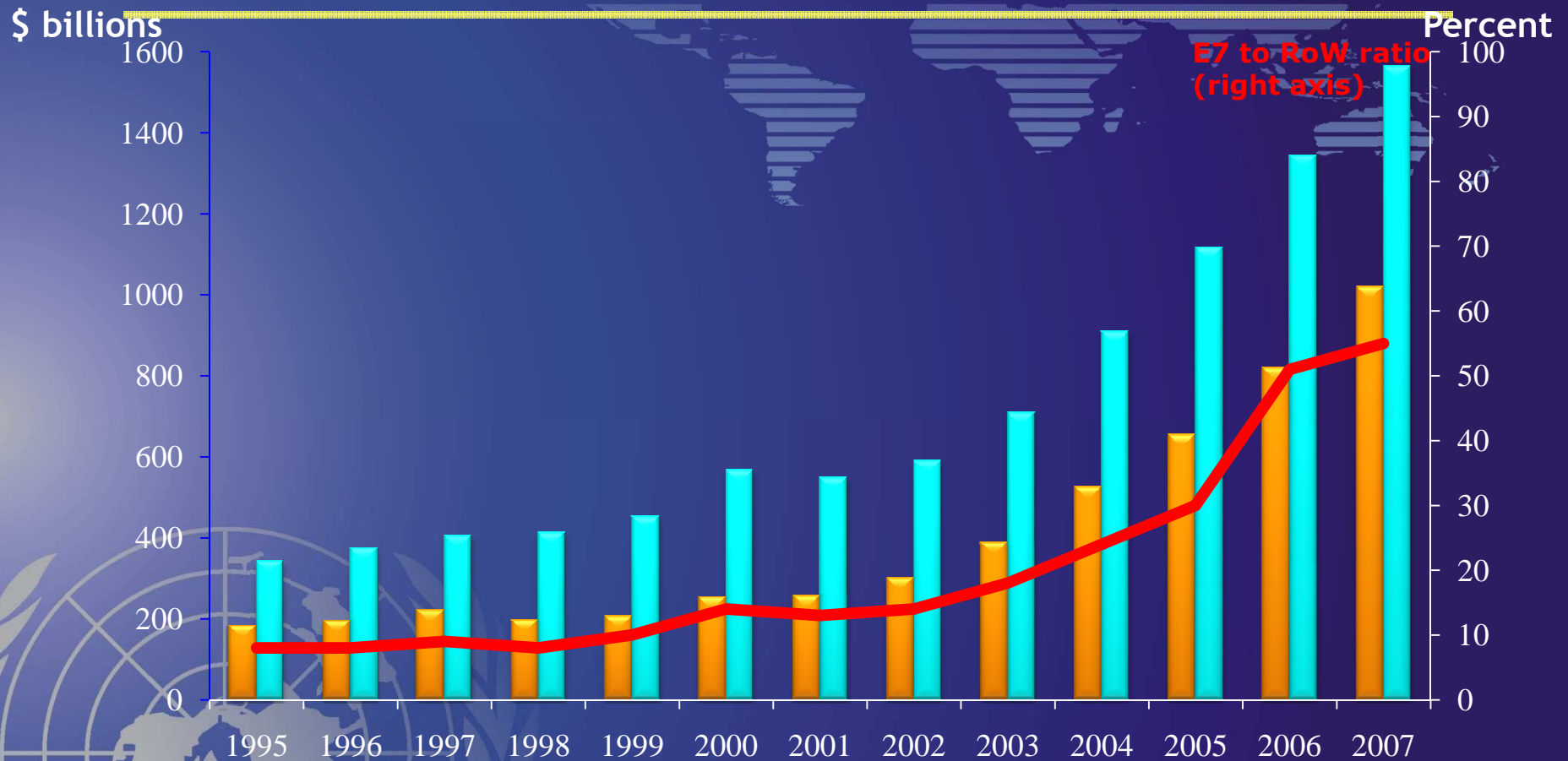
Source: UNCTAD

Transition economies exports: Transition economies to North ratio



Source: UNCTAD

Emerging economies exports: South to RoW ratio (Seven emerging economies*)



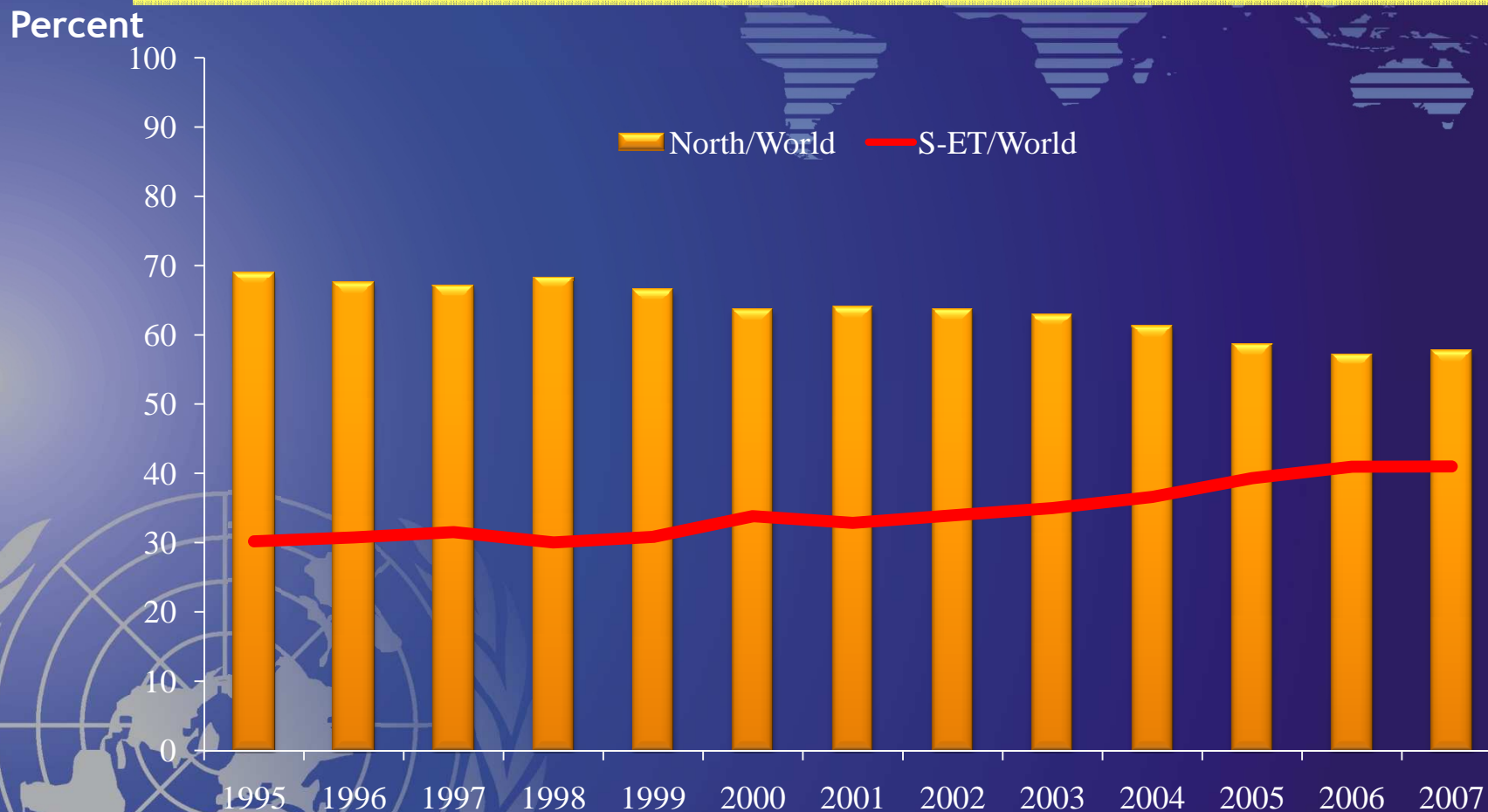
*Brazil, China, India, Mexico, Russia, South Africa and South Korea

Source: UNCTAD

■ E7-South ■ E7-RoW

Increasing market share of South

(Developing and Transition economies exports to World)



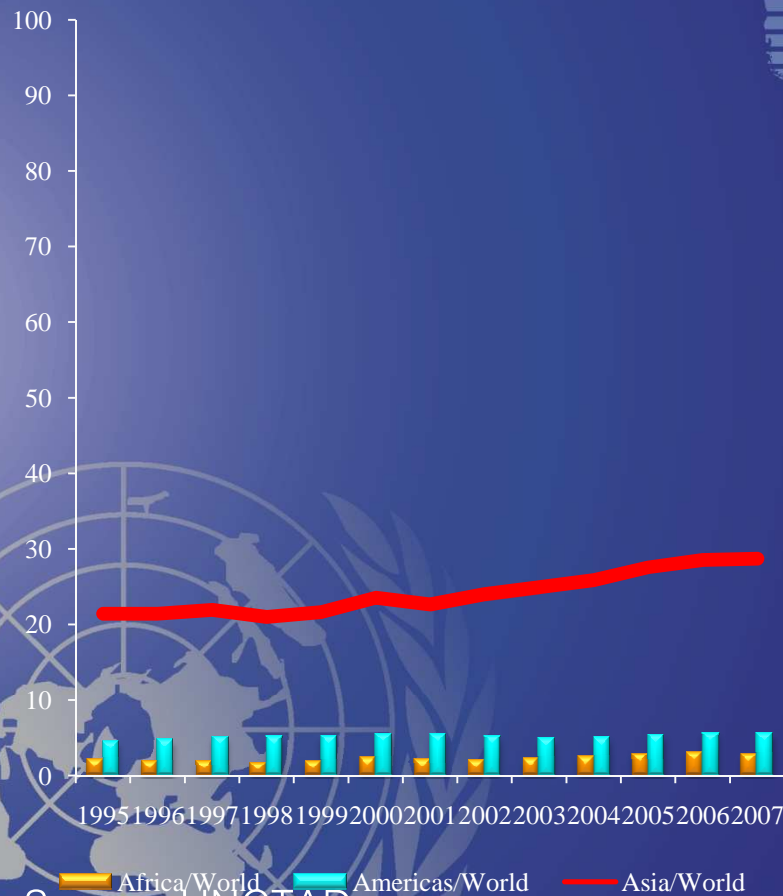
Source: UNCTAD

But Regional differences high in South

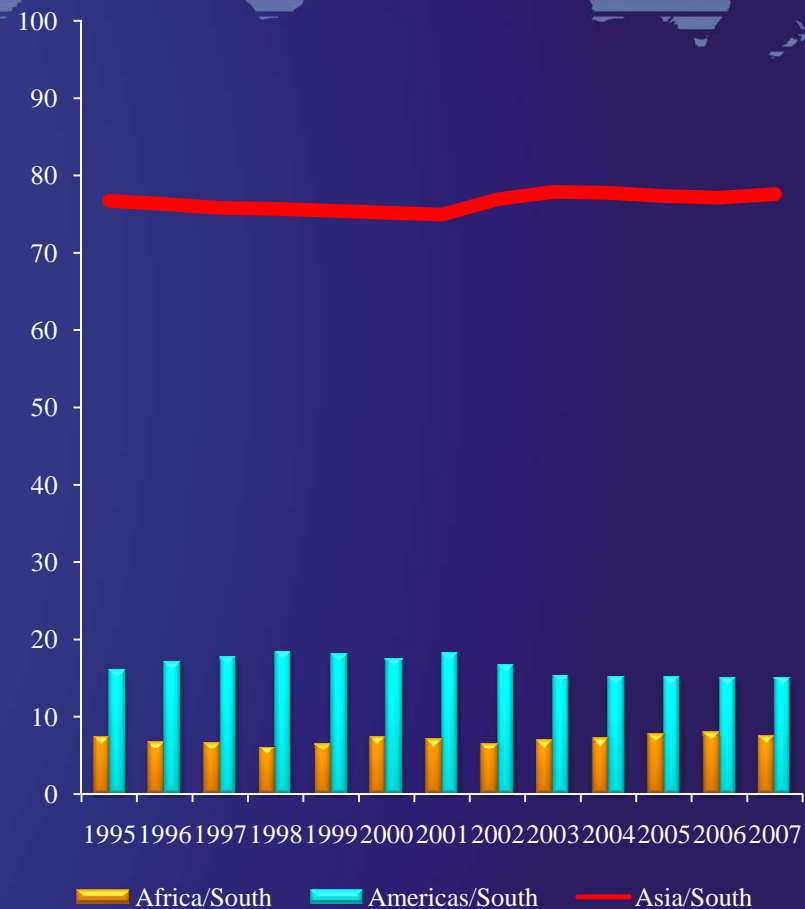
(Developing and Transition economies exports to World)

Percent

Regional exports to World



Regional exports to South



Source: UNCTAD

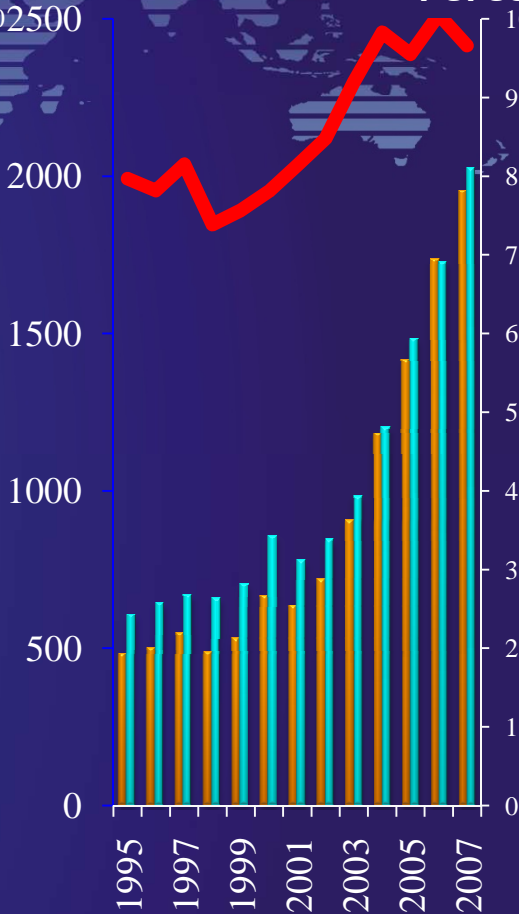
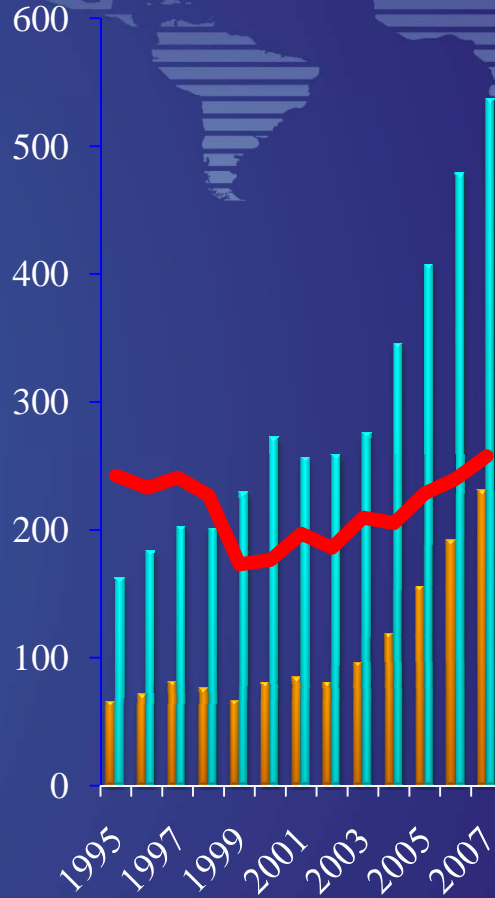
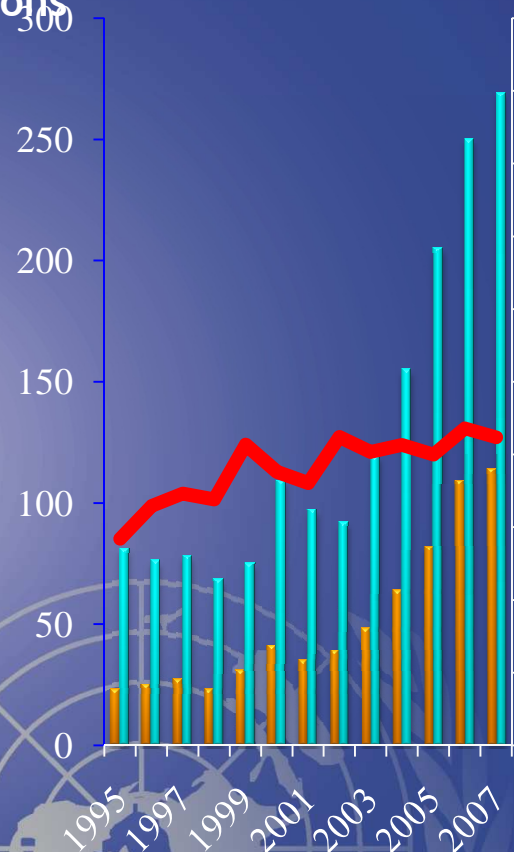
Regional exports: Africa, Americas and Asia

(Developing countries)

Regions to RoW ratio (right axis)

\$ billions

Percent



■ Africa_S ■ Africa_RoW

■ Americas_RoW ■ Americas_S

■ Asia_S ■ Asia_RoW

Source: UNCTAD

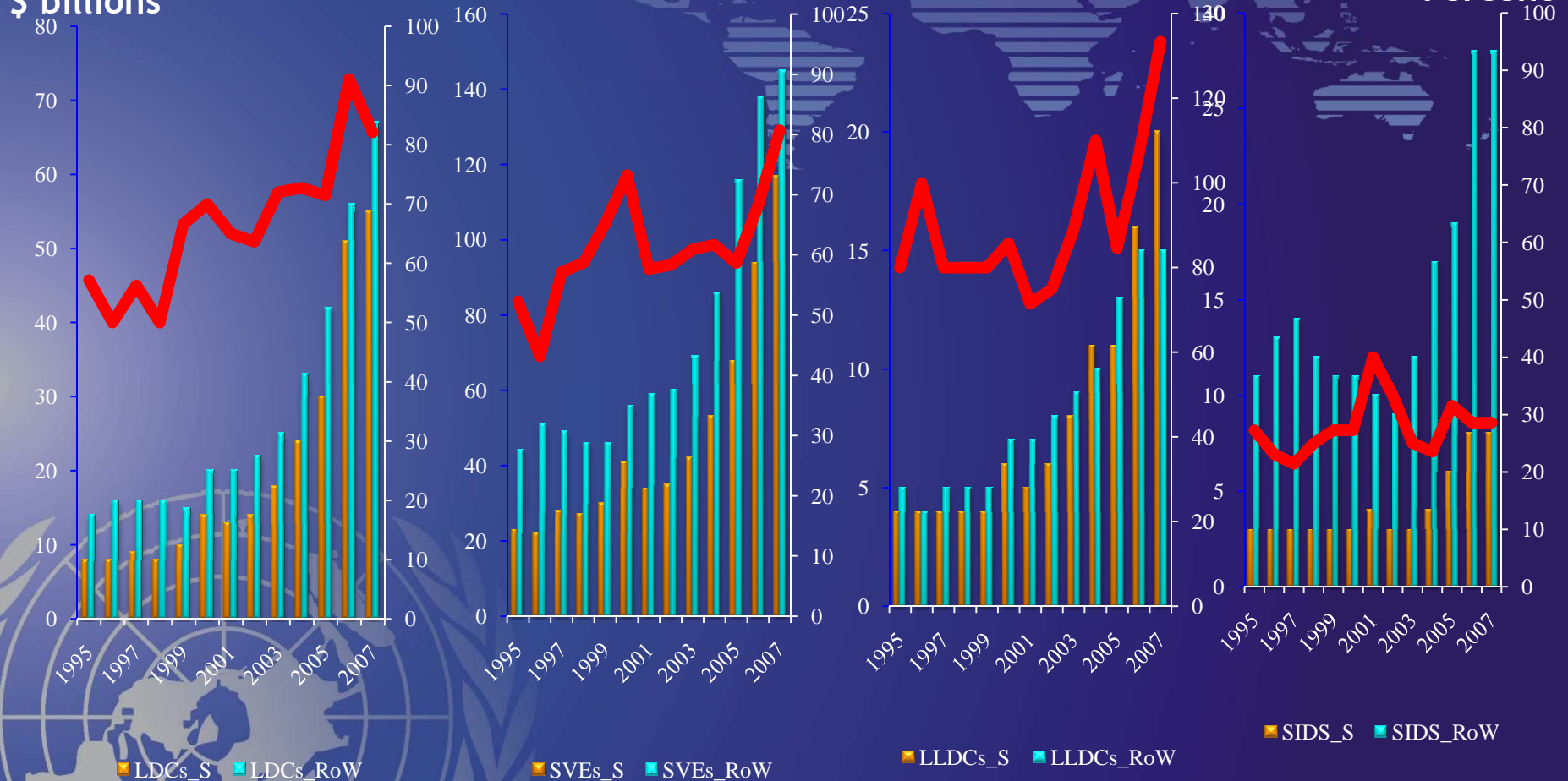
LDCs, SVEs, LLDCs and SIDS exports:

(Developing countries)

Regions to RoW ratio (right axis)

\$ billions

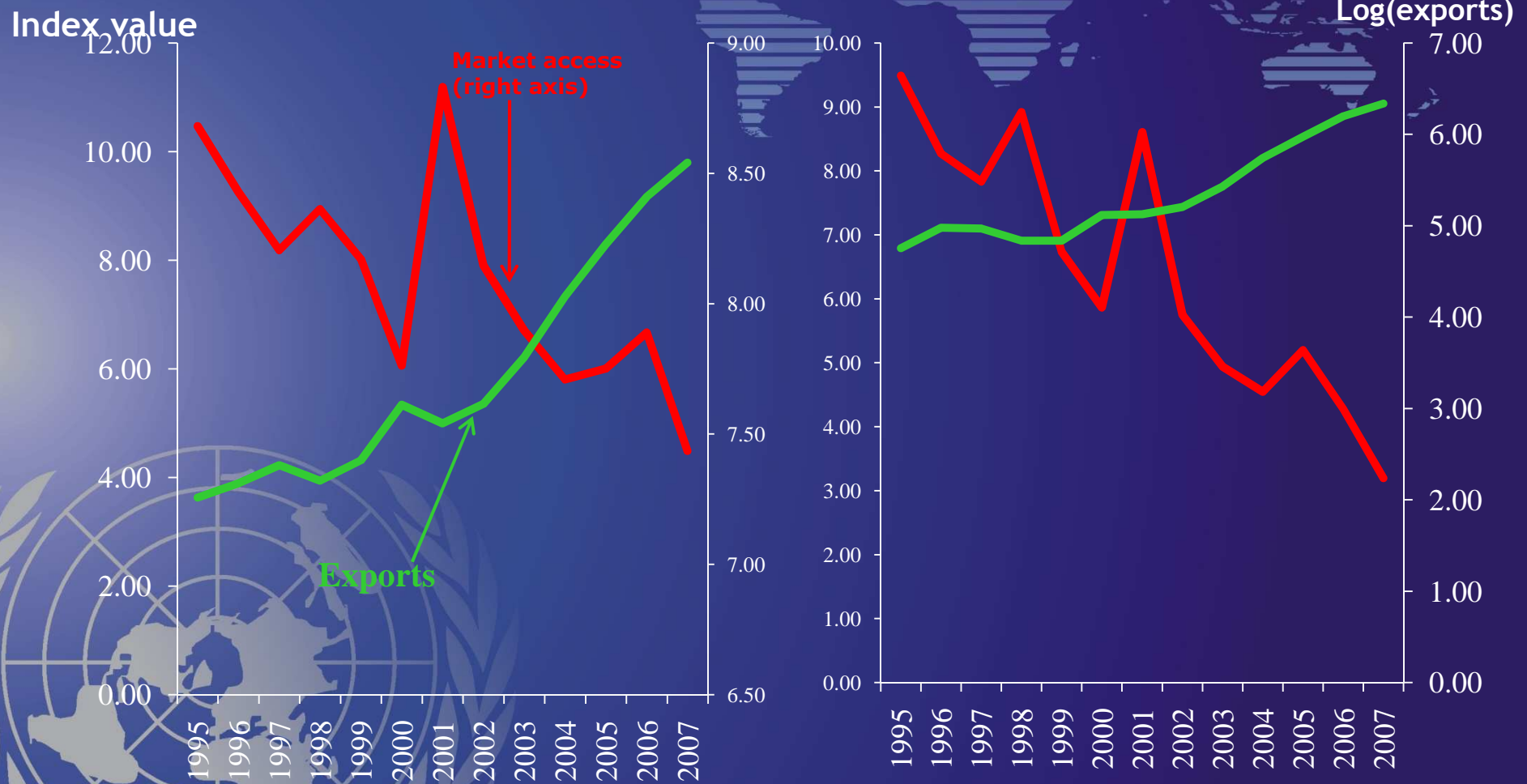
Percent



Note: LDCs: Least developed countries, SVEs: Small and vulnerable economies, LLDCs: Landlocked developing countries, SIDS: Small island developing countries. Source: UNCTAD

No to "protectionism"

Market access* and exports: (Developing countries and transition economies)



*Higher market access implies lower index value

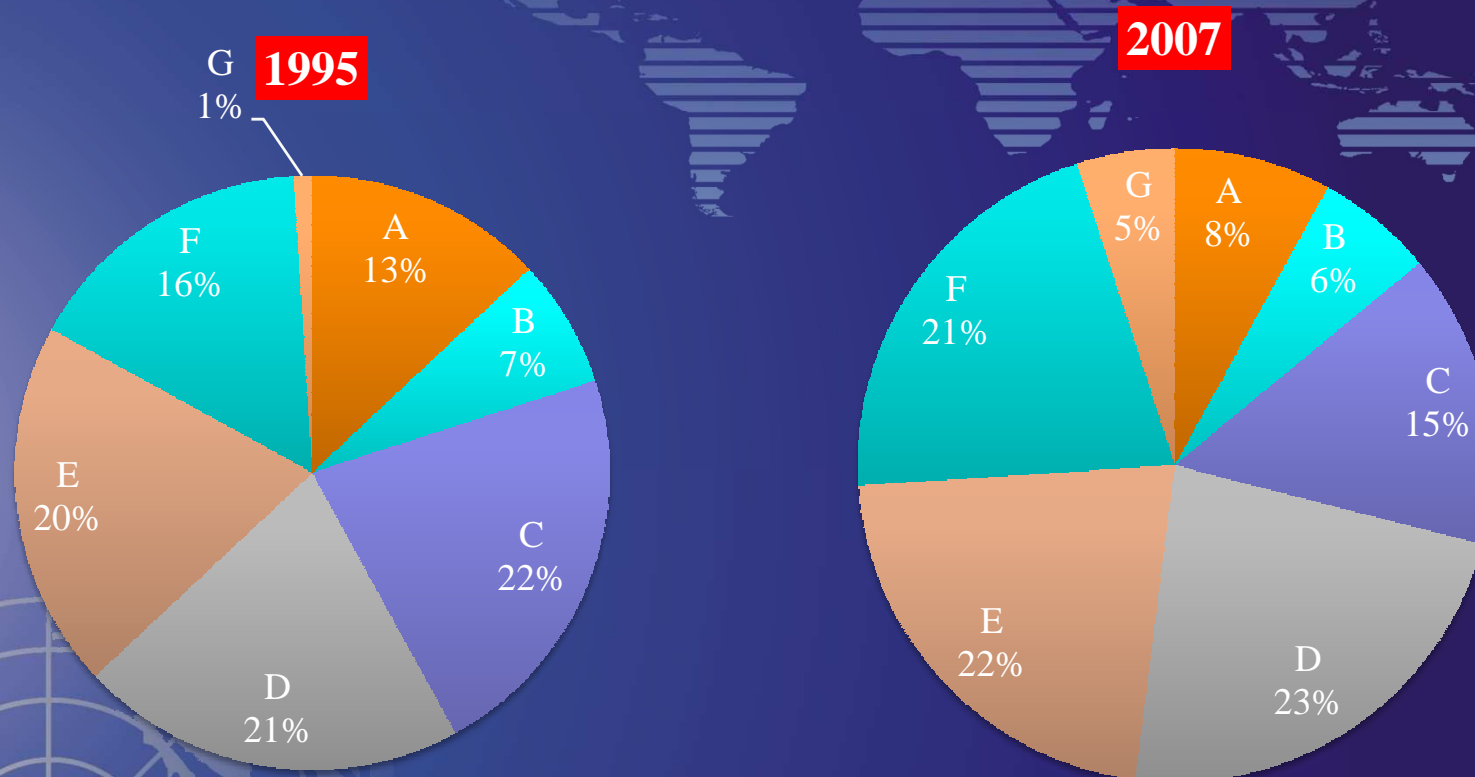
Source: Basu (2009), UNCTAD

A faint world map is visible in the background of the top half of the slide.

Nature of South-South trade expansion: Going beyond aggregates



Structural transformation in South exports (Share of developing countries exports to World)



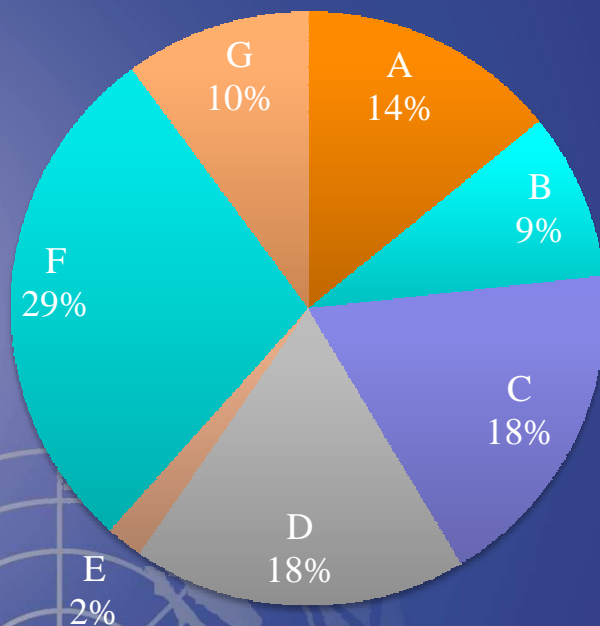
A: Primary commodities, **B:** Labour intensive and resource based manufactures
C: Manufactures with low skill and technology intensity, **D:** Manufactures with medium skill and technology intensity, **E:** Manufactures with high skill and technology intensity
F: Energy products, **G:** Unclassified

Source: UNCTAD

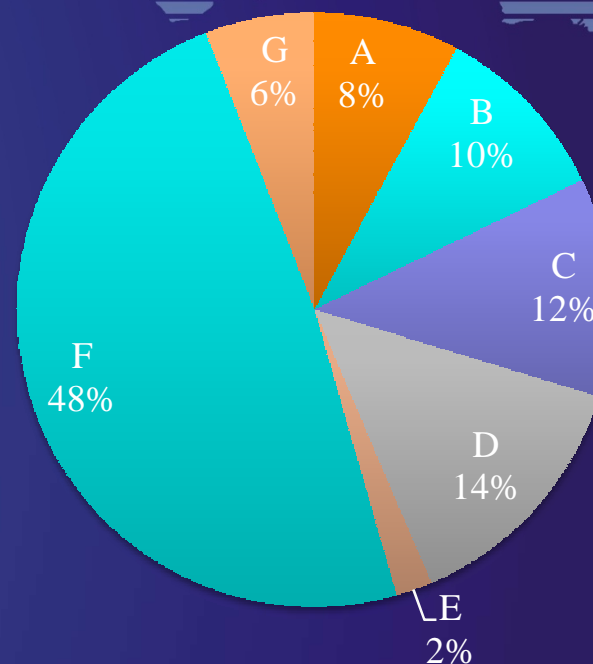
Structural transformation in exports

(Share of transition economies exports to World)

1995



2007



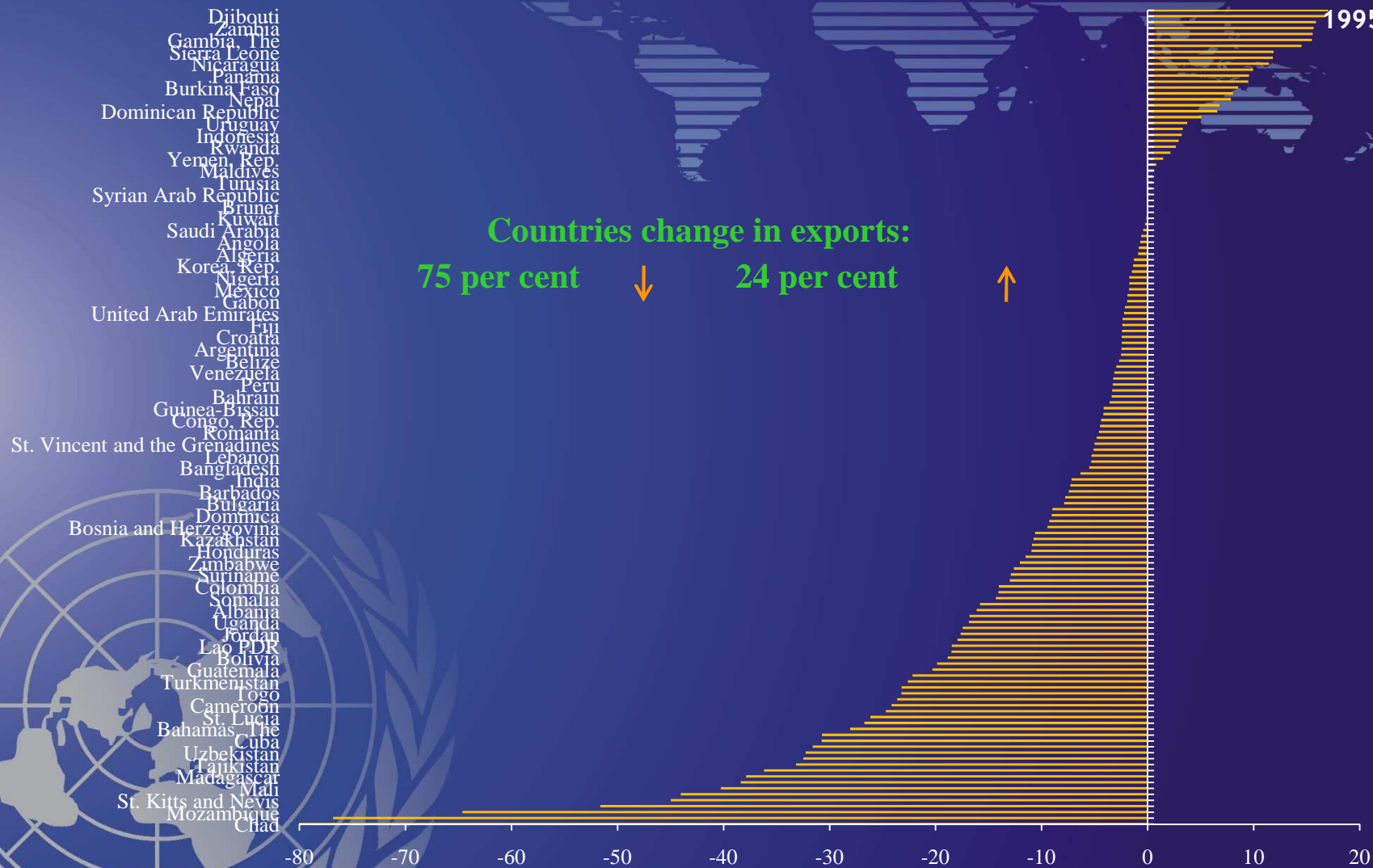
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F: Energy products, **G:** Unclassified

Source: UNCTAD

Primary commodities

(% share of share of national exports, developing and transition)

Change:
1995-2007



Labour intensive and resource based manufactures

(% share of share of national exports, developing and transition)

- Tajikistan
- Tanzania
- Burundi
- Togo
- Georgia
- Lao PDR
- Lebanon
- Zimbabwe
- Uzbekistan
- Nicaragua
- Bulgaria
- Afghanistan
- Bosnia and Herzegovina
- United Arab Emirates
- Chile
- Bhutan
- Peru
- Nepal
- Kiribati
- Rwanda
- Mauritius
- Ethiopia
- Albania
- Colombia
- Guatemala
- Samoa
- Jordan
- St. Lucia
- Ukraine
- Solomon Islands
- Yemen, Rep.
- Costa Rica
- Panama
- Comoros
- Dominica
- Equatorial Guinea
- Seychelles
- Mauritania
- Algeria
- Liberia
- Cape Verde
- Belize
- Tunisia
- Qatar
- Morocco
- Cuba
- Oman
- Brazil
- Malaysia
- Philippines
- Bangladesh
- Trinidad and Tobago
- Argentina
- Russian Federation
- Ecuador
- China
- Vietnam
- India
- Cameroon
- Fiji
- Harti
- Indonesia
- Korea, Rep.
- Armenia
- Sudan
- Bolivia
- Central African Republic
- Sierra Leone
- Entrea

Change: 1995-

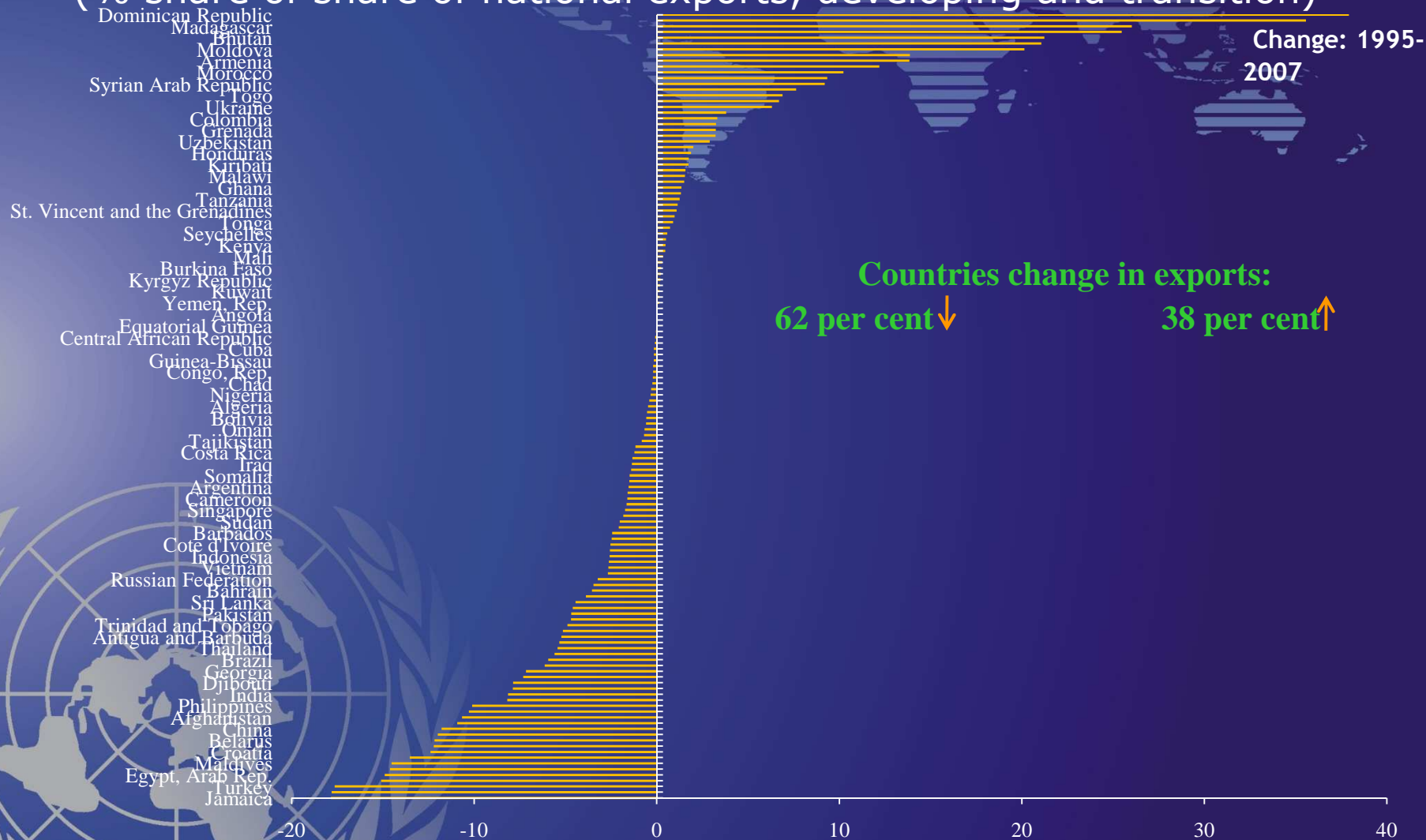
2007

Countries change in exports:
 49 per cent ↓ 51 per cent ↑



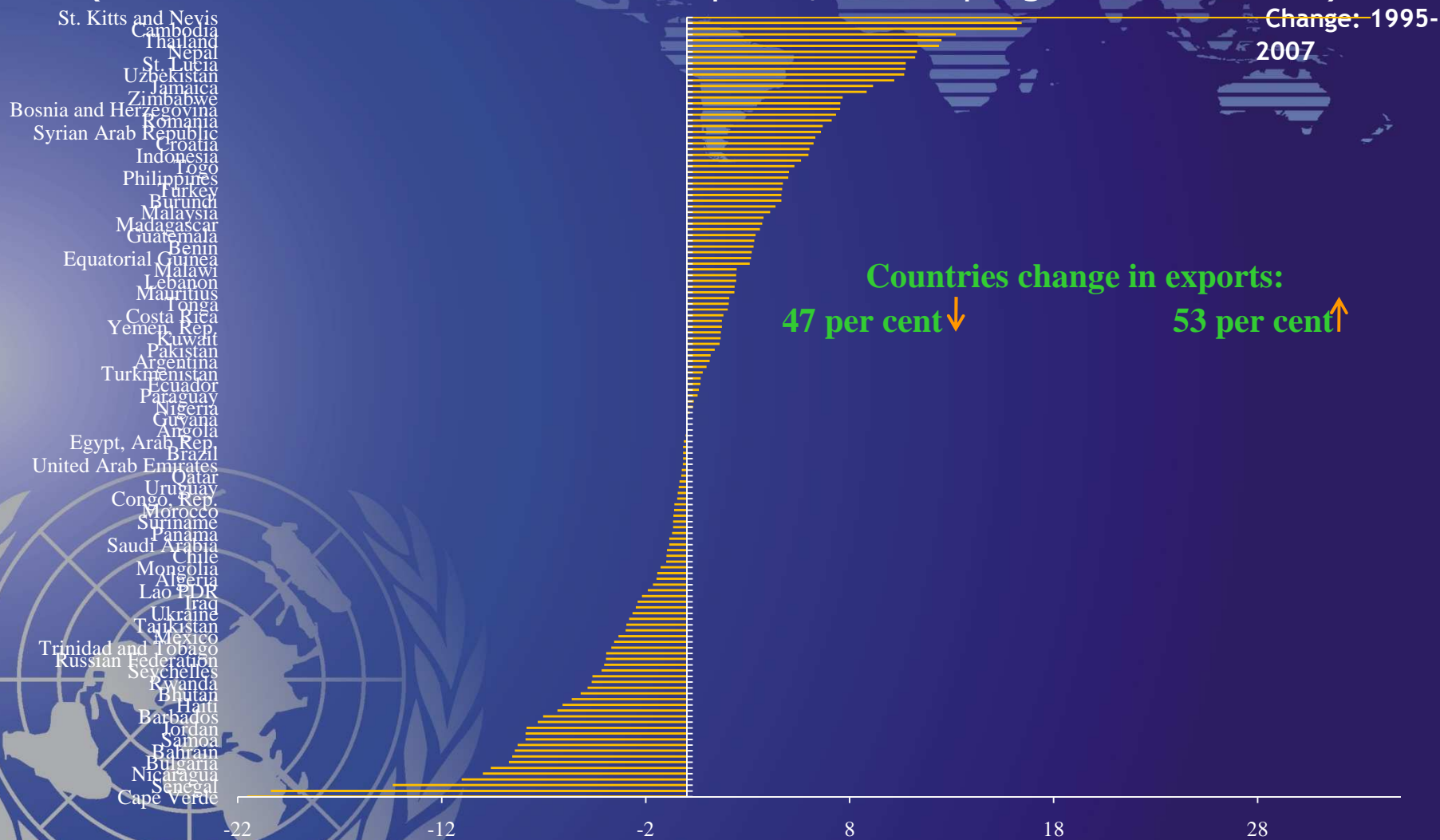
Manufactures with low skill and technology intensity

(% share of share of national exports, developing and transition)



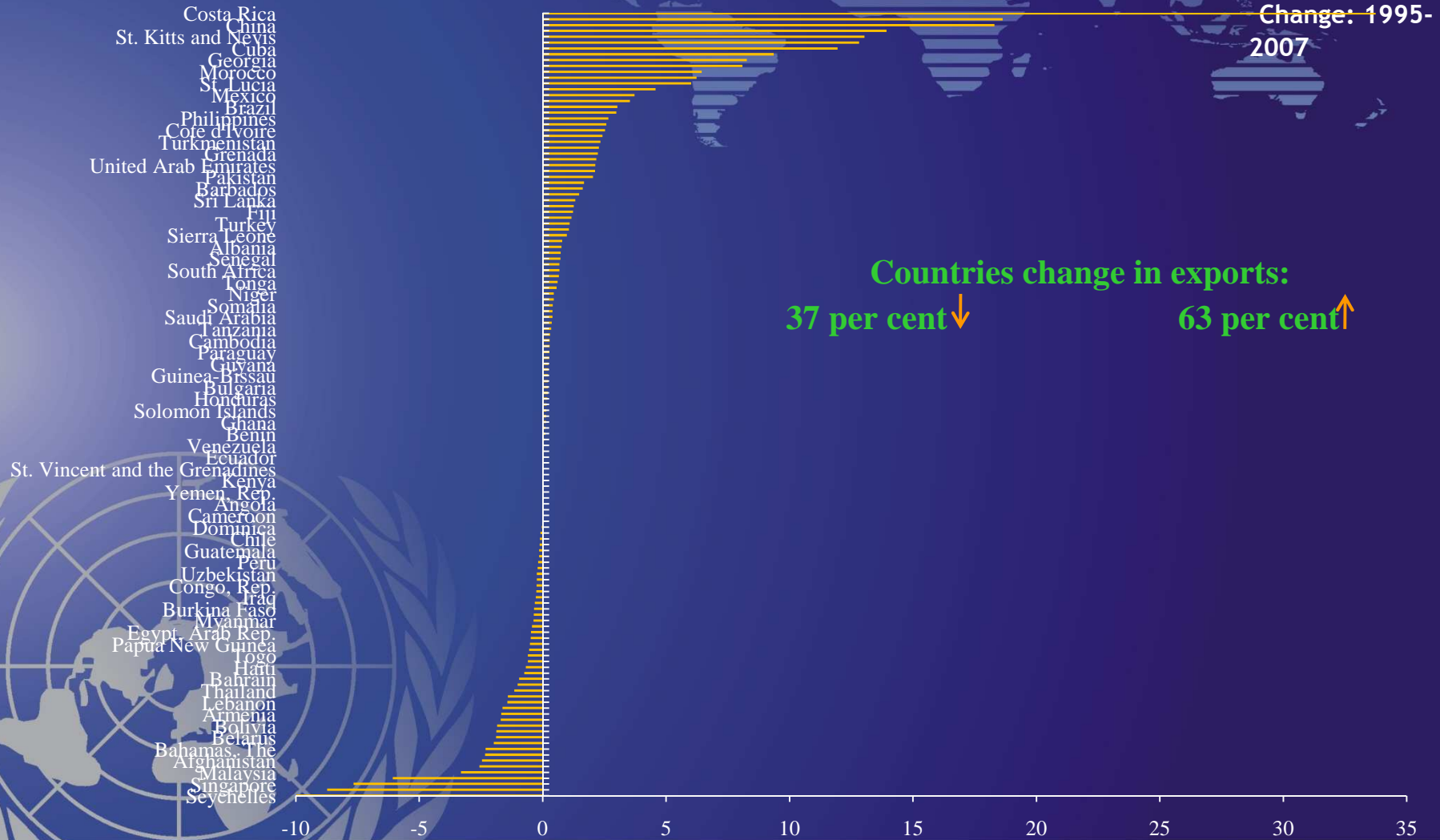
Manufactures with medium skill and technology intensity

(% share of share of national exports, developing and transition)



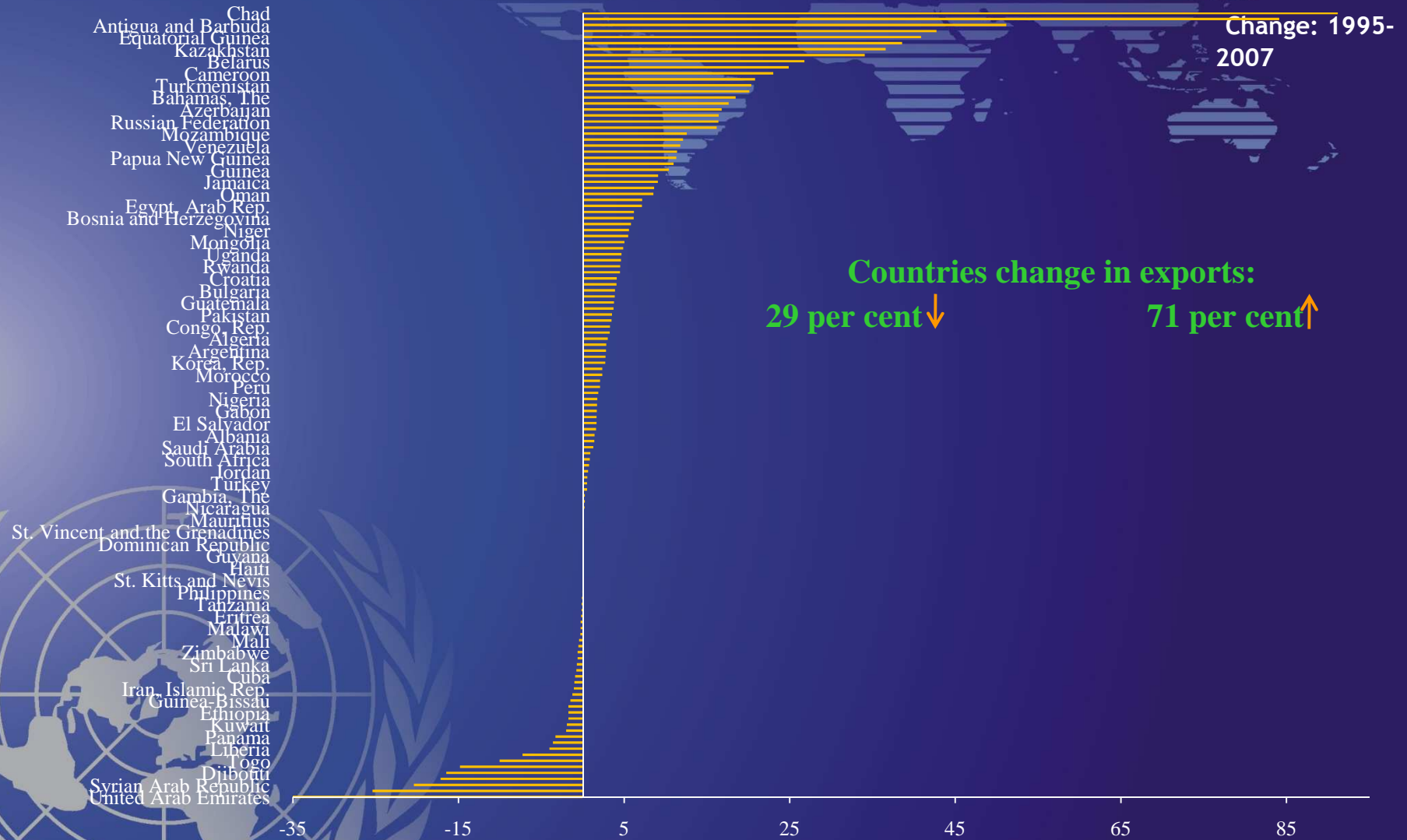
Manufactures with high skill and technology intensity

(% share of share of national exports, developing and transition)



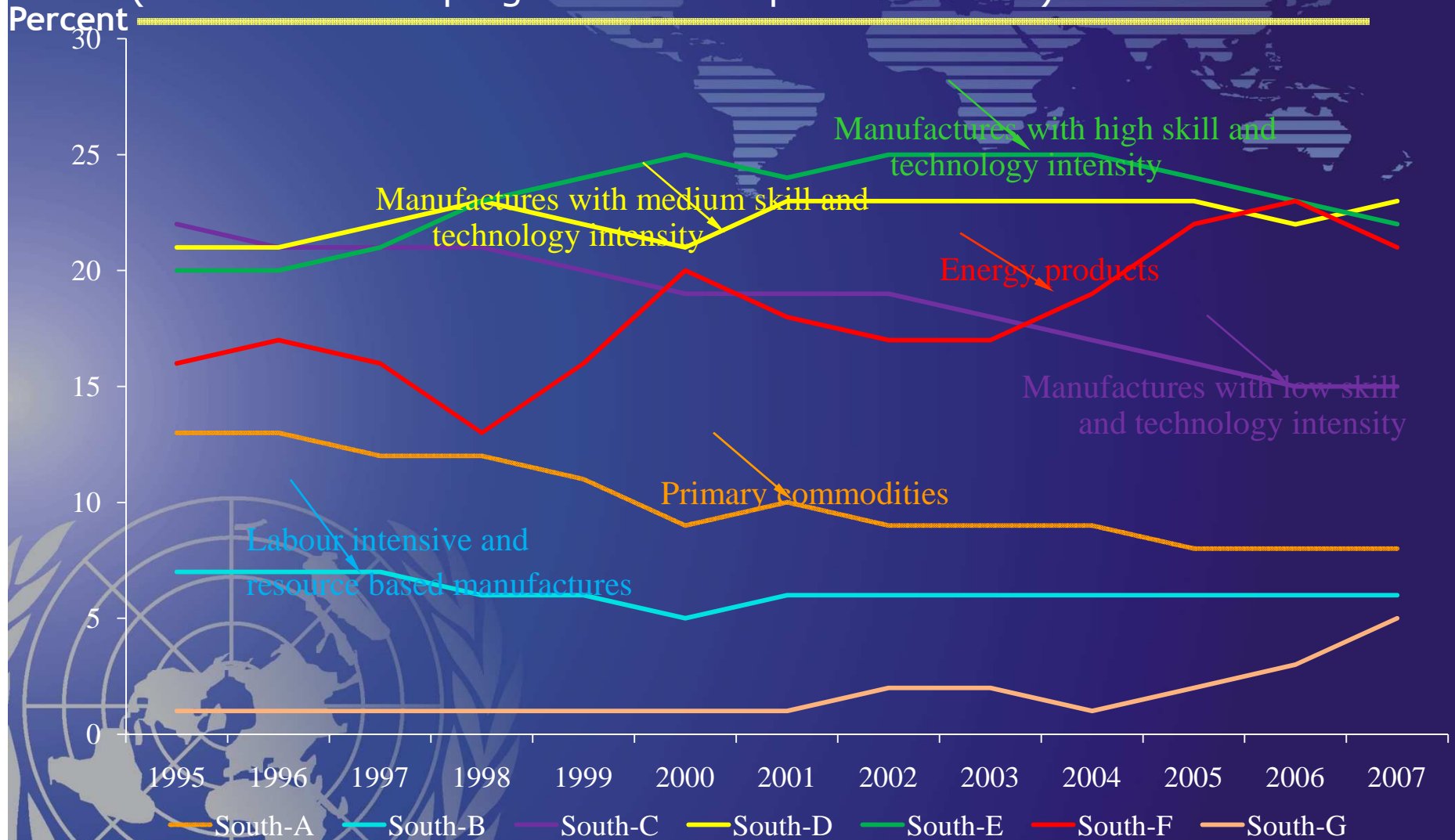
Energy products

(% share of share of national exports, developing and transition)

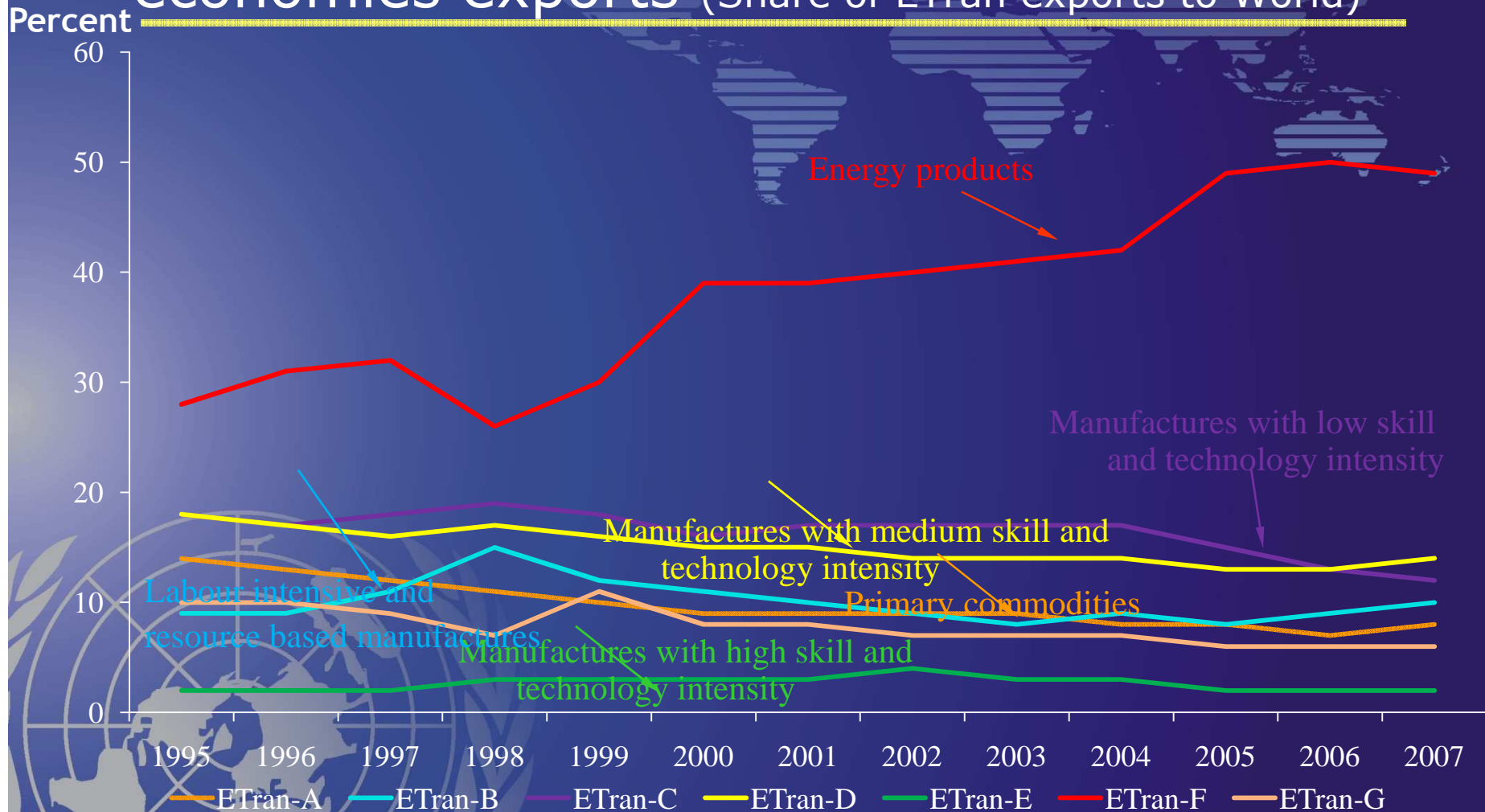


Structural transformation in South exports

(Share of developing countries exports to World)

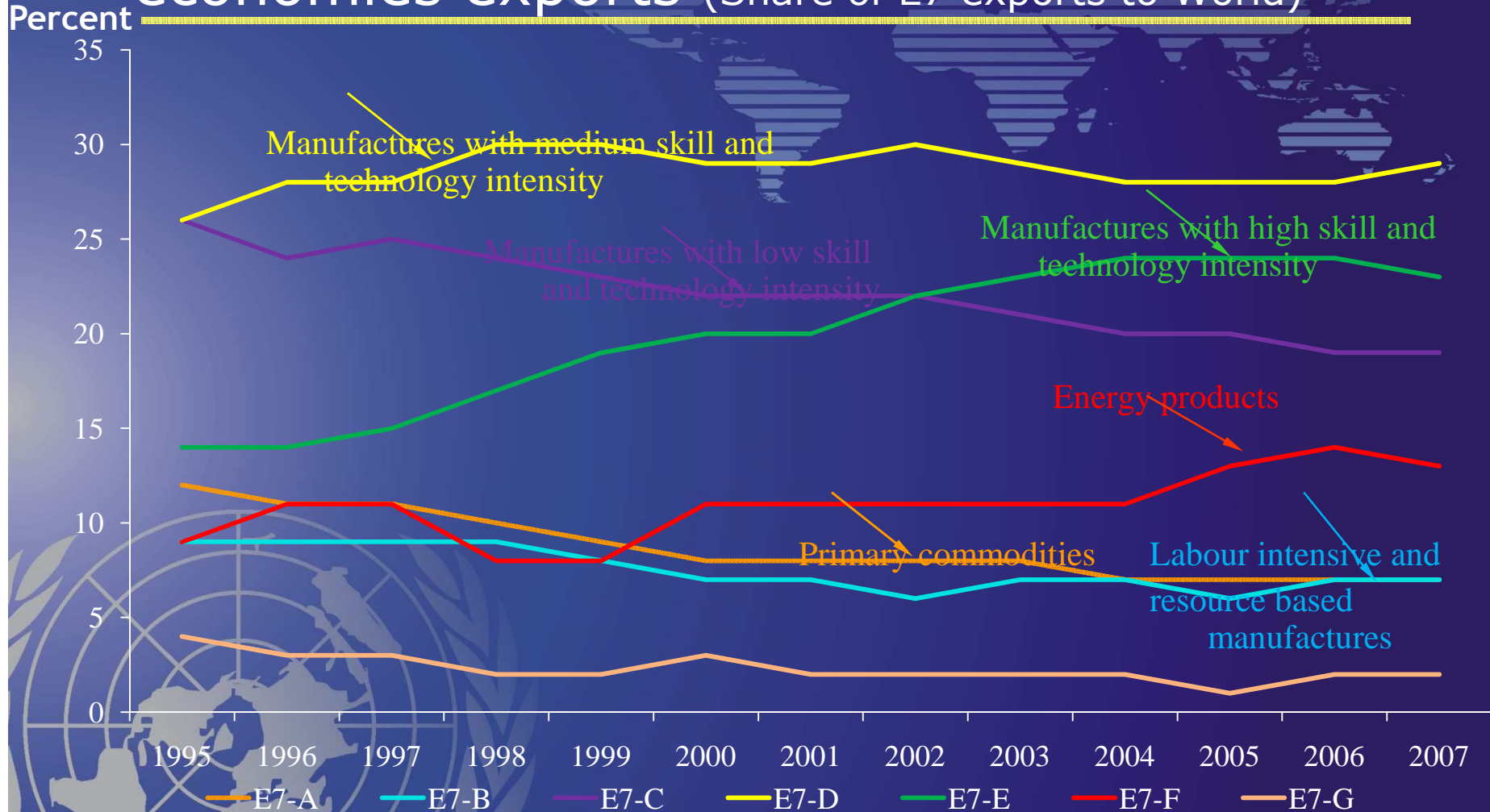


Structural transformation in transitions economies exports (Share of ETran exports to World)



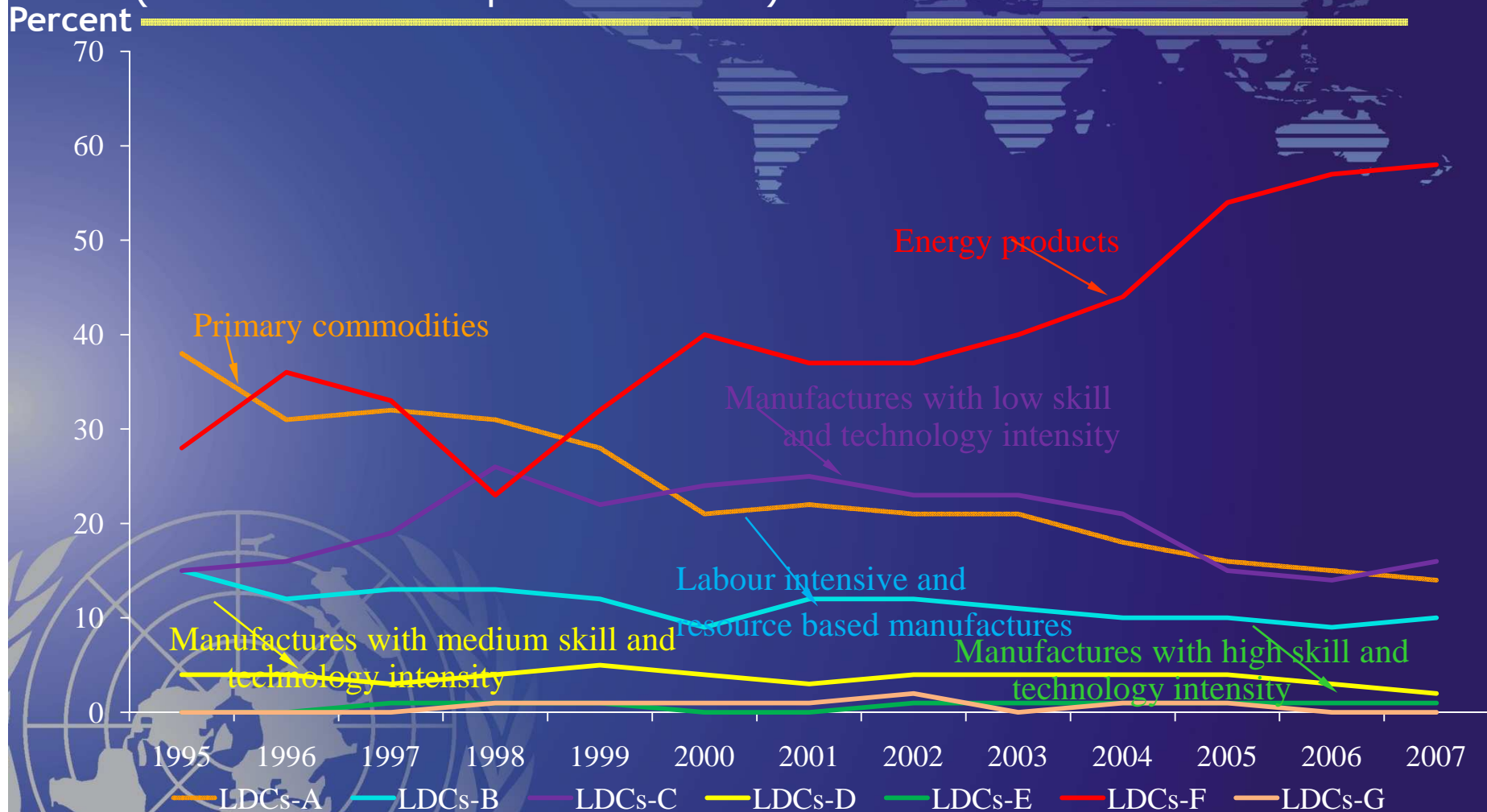
Source: UNCTAD

Structural transformation in emerging economies exports (Share of E7 exports to World)



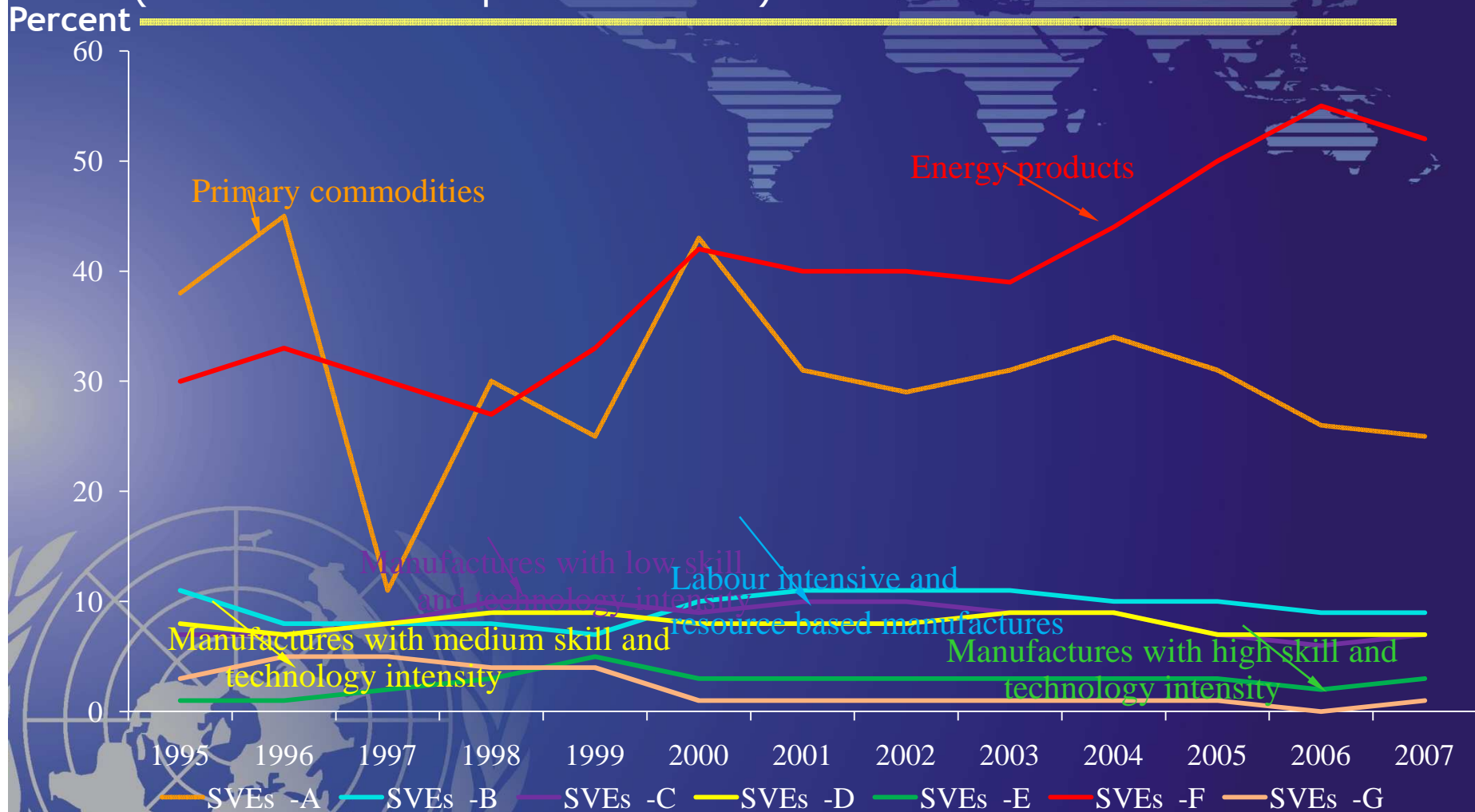
Source: UNCTAD

Structural transformation in LDCs exports (Share of LDCs exports to World)



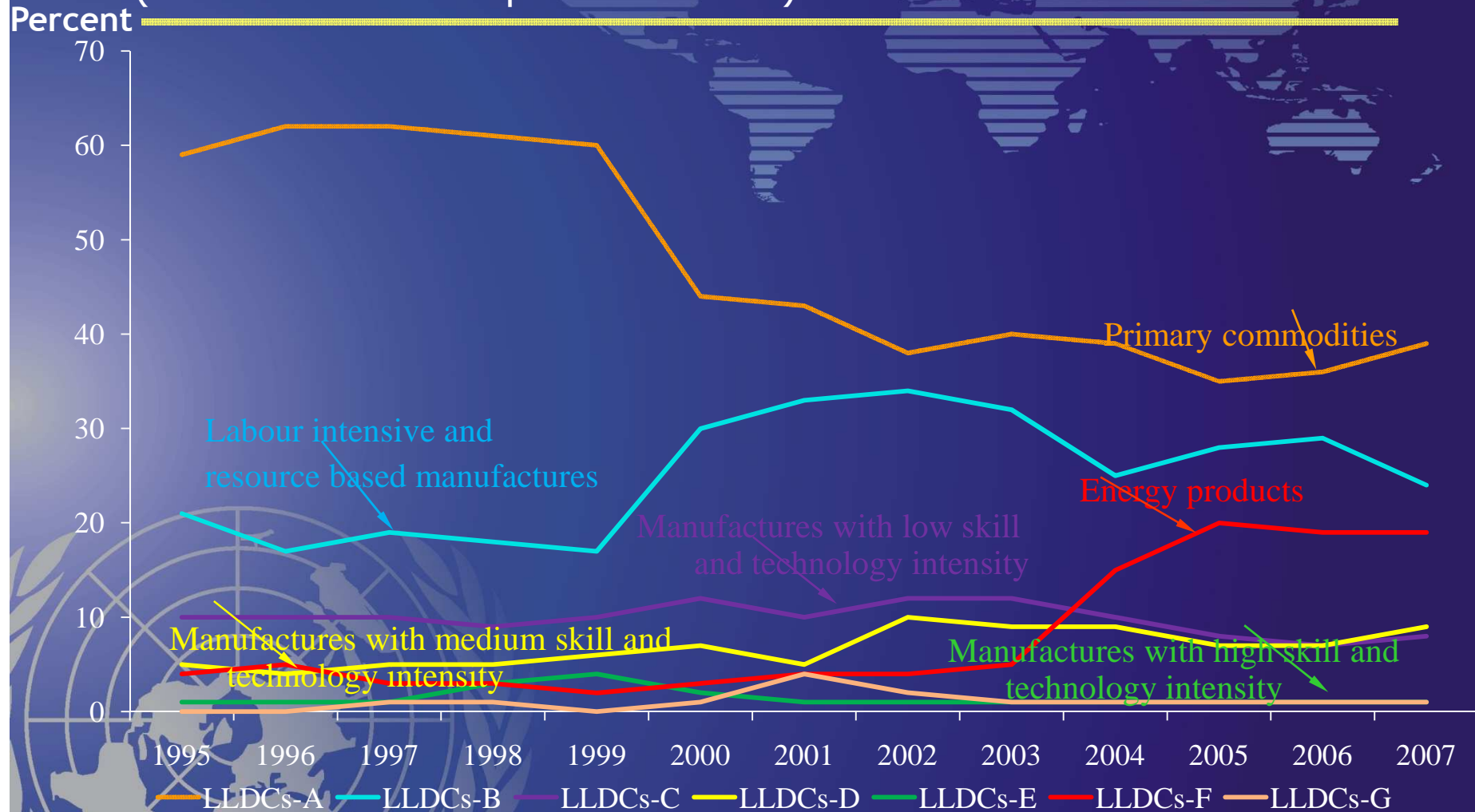
Source: UNCTAD

Structural transformation in SVEs exports (Share of SVEs exports to World)



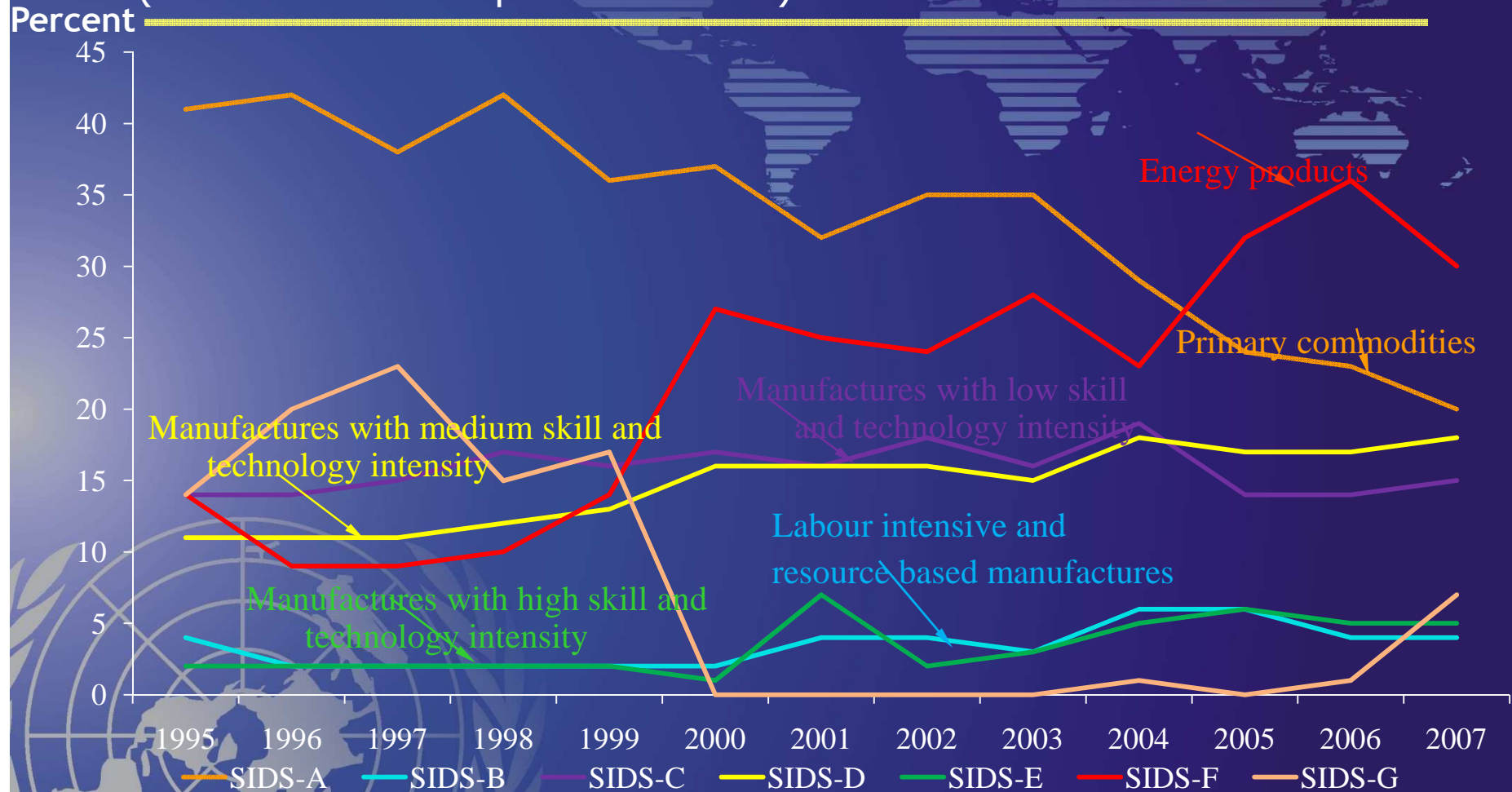
Structural transformation in LLDCs exports

(Share of LLDCs exports to World)



Source: UNCTAD

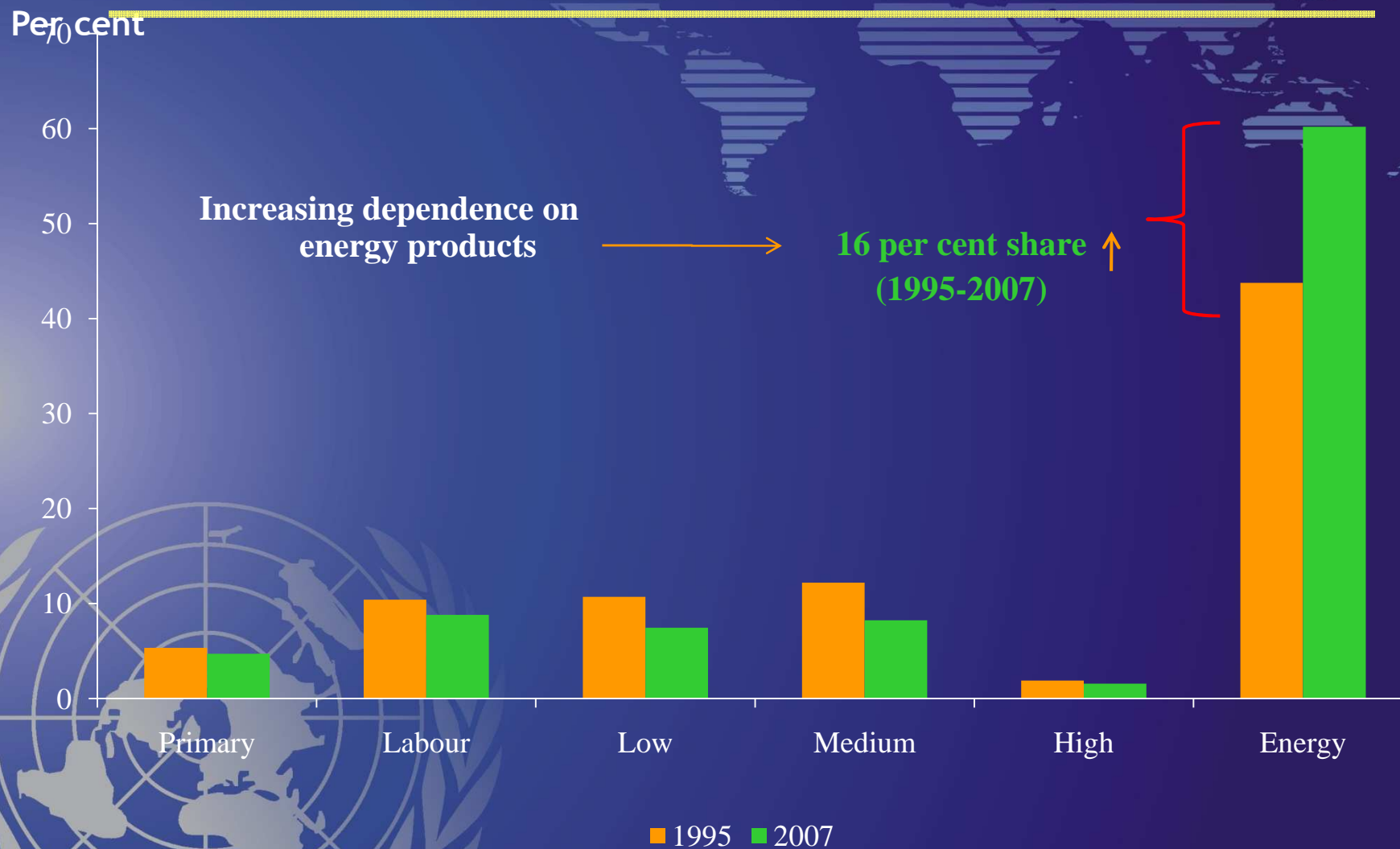
Structural transformation in SIDS exports (Share of SIDS exports to World)



Source: UNCTAD

Russian story

(% share of share of national exports)



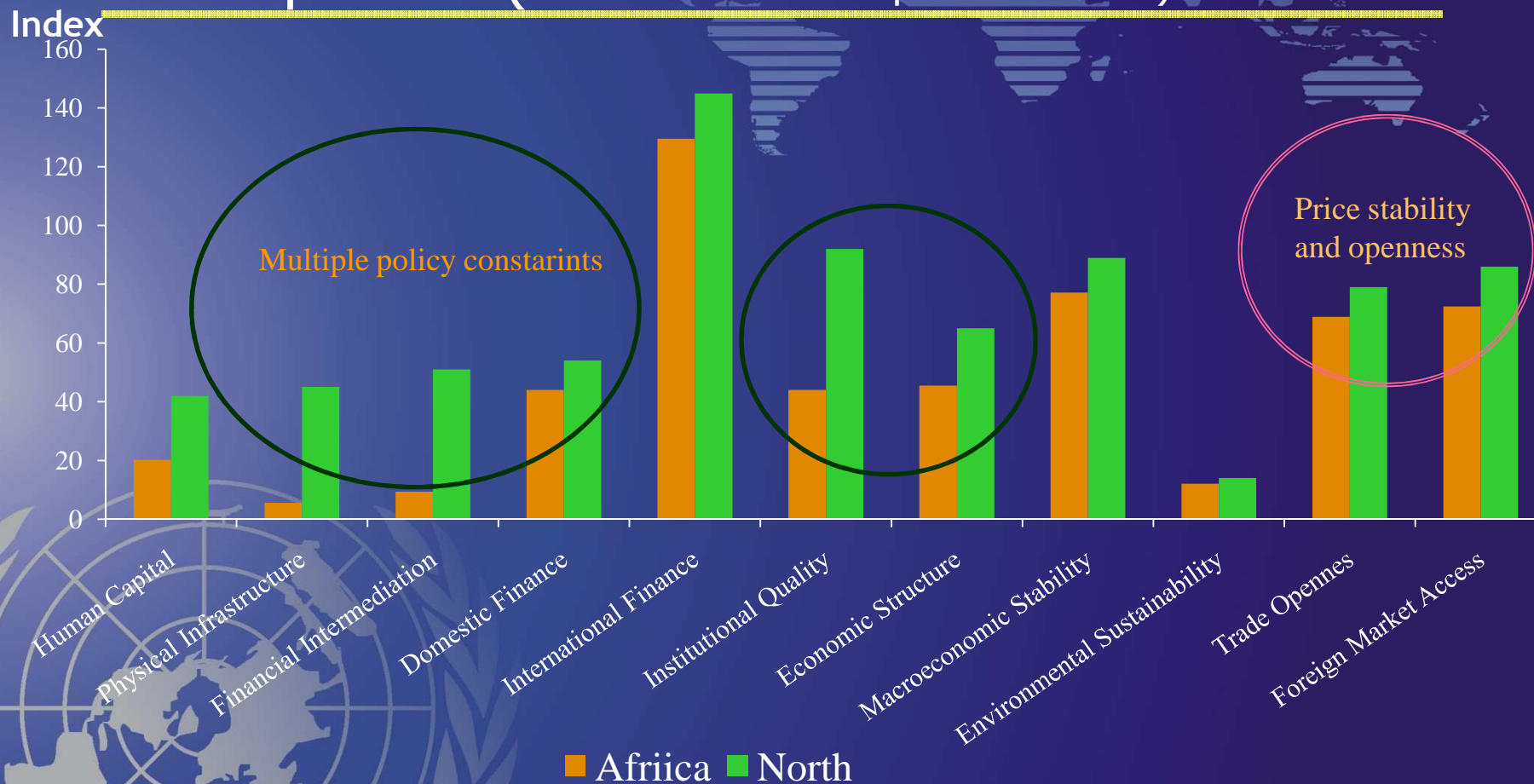


Understanding structural transformation: Preliminary empirical findings



Identifying constraints

Determinants of trade expansion and development (Trade and Development Index)



Source: Developing Countries in International Trade 2007: Trade and Development Index.
United Nations, UNCTAD, Geneva and New York, 2007

- Developing economies' merchandise exports grew from 1.4 trillion USD in 1995 to 5.2 trillion USD in 2007
 - The transformation of developing countries exports structure has been diverse leading to a differential level of impact on their national economic growth and development.
- **Two key issues:**
 - The proponents of open-global economy and free trade argue that product diversification help accelerate economic growth and development in countries which favored these set of policies.
 - On the other hand, another set of economists argue that a cautious approach in conjunction with good and strategic domestic economic policies can better help countries to obtain fruits of export diversification leading to rising skill/technology content of products help countries to transform their domestic production structure.

Classical arguments

- Prebisch-Singer (1950) hypothesis indicate that (trade) concentration is linked to deteriorating terms of trade, income volatility, shrinking production structure that lead to low-level equilibrium trap.
- Trade (export) diversification and skill/technology content in production process is key for developing countries to overcome domestic economic and structural bottlenecks, especially in Africa
- Welfare impacts: economic growth and employment creations
- Sectoral implications: Depending on the institutional linkages and stages of development, welfare implications tend to be higher in high skilled/technology content industries, and new issues related to intensive and extensive margin
- Domestic economic linkages: Forward and backward linkages with domestic firms leading to a productive capacity and expand structure

Continuing discussions

- 1940s-1980s:
 - Harschman (1945), *United Nations* (1950), Michaely (1958), Massell (1964)
- 1990s-2000:
 - Grossman and Helpman (1991), Sachs and Warner (1995), Lall (2000)
- 2001 onwards:
 - *Wood and Mayer* (2001),
 - Lederman and Maloney (2003), Imbs and Wacziarg (2003), Hausman and Rodrik (2003), *Collier* (2003)
 - *Sachs et al.* (2004)
 - Hausman, Hwang and Rodrik (2005), Melitz and Ottaviano(2005), Rodrik (2006)
 - *UN Africa* (2007)
 - Cadot, et al (2008)
 - World Bank (2009)
 - *UNCTAD* (2002, 2008 & 2009)

Some empirics

- Three key issues:
 - New database and measures
 - Exploring importance of institutions along with economic policies, infrastructure, and geography as determinants of factor intensity differences in developing countries
 - These results are robust to different specifications, estimation methods, and additional control variables
 - Cross section model
 - Panel model
 - 170 countries, whole sample
 - Period of analysis 1995-2007

Database and measures

- *170 countries , whole sample (developing and transition, 130+)*
- *Time periods:*
 - 1995 to 2007
 - Four time periods: 1995-1997, 1998-2000, 2001-2003, and 2004-2007
- *Trade database*
 - UNCTAD South-South Trade Information System (SSTIS)
 - Product Classification at HS-6 digit level
 - Time series ensured soon
- *Institutional Quality, Foreign Market Access, Economic Policy and Geography*
- *Factor intensity categories:*
 - UNCTAD SSTIS database, HS-4 digit level
- *Other data* (Economic policy, Infrastructure, Geography etc):
 - UNCTAD, World Bank, IMF, WTO, HF/Cato, CIRC, and other sources

Measuring factor intensity

- *Harmonised System of trade classification, HS-4 digit level, based on UNCTAD SSTIS*
- *Factor intensity categories: A to G.*

A:Primary commodities

B:Labour intensive and resource based manufactures

C:Manufactures with low skill and technology intensity

D:Manufactures with medium skill and technology intensity

E:Manufactures with high skill and technology intensity

F:Energy products

G:Unclassified products

Measuring quality..

Measuring quality of institutions

Property Rights, Rule of law, Corruption, Financial measures, investment measures , Business accesses, Trade institutions; Political Rights, Civil Liberties, Measures of, democracy and autocracy, Physical Integrity measures, parliamentary process and political participation; Measures of women's empowerment, Labour rights, social rights and press freedom

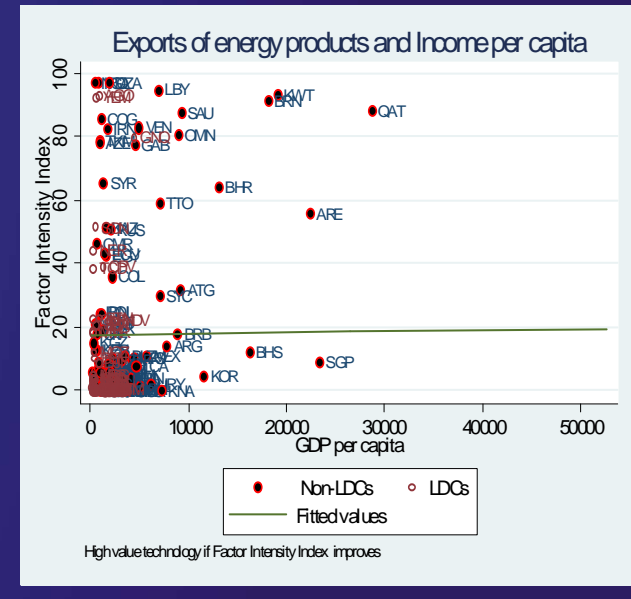
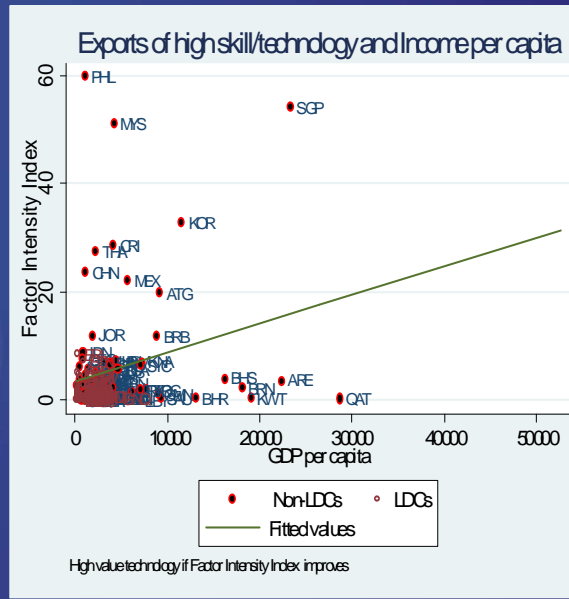
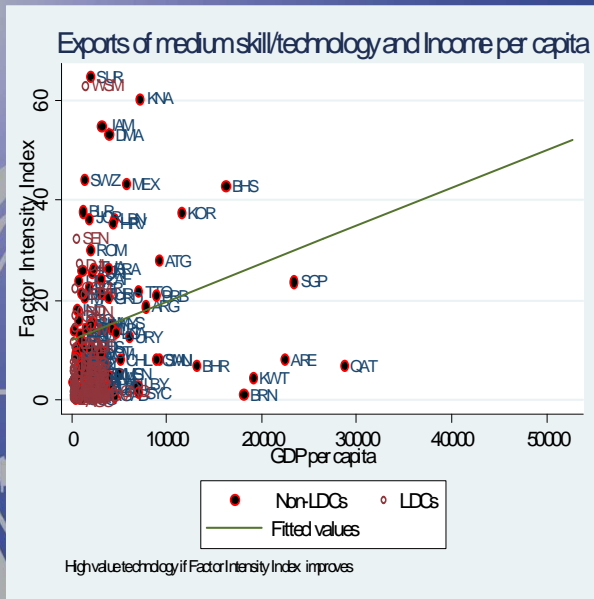
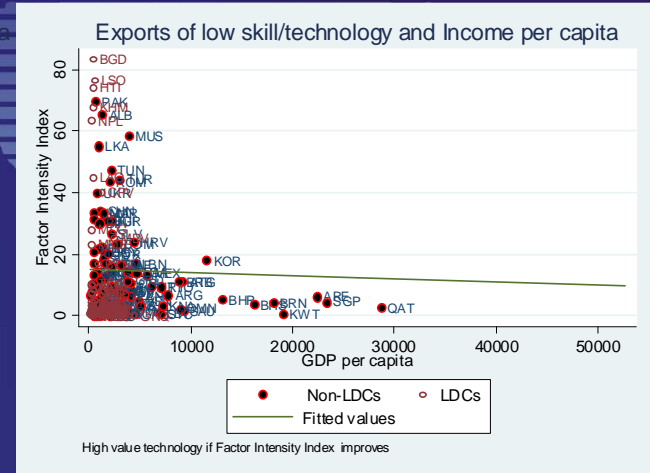
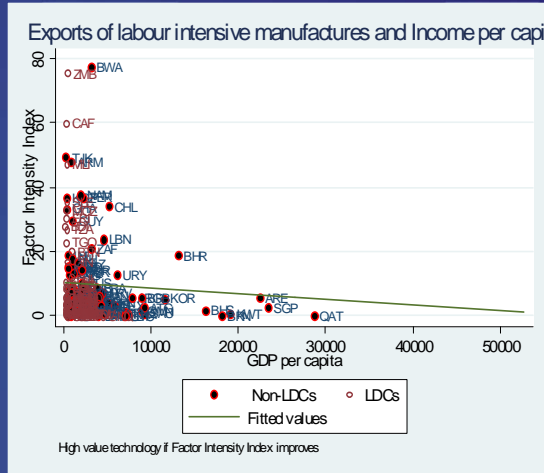
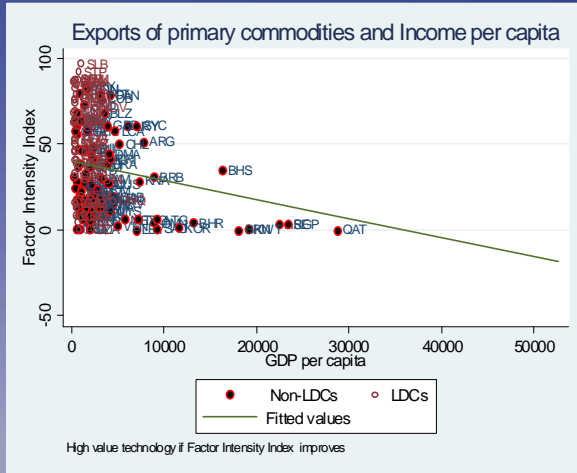
Methodology

Multivariate Statistical Method of latent variable (LV) approach as proposed in Nagar and Basu (2002), Basu, Klein and Nagar (2005)

- A composite weighted average measure of standardized indicators for each country for each period defined, without scaling the final index values
- IQI is a latent variable, and linearly determined by many exogenous variables say, X_1, \dots, X_k . -Variation in these variables explain variation in IQI. -Weights are obtained to compute weighted average of IQI

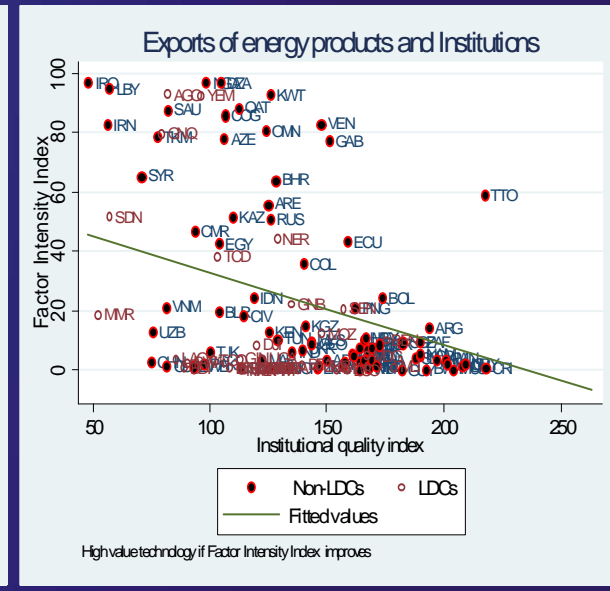
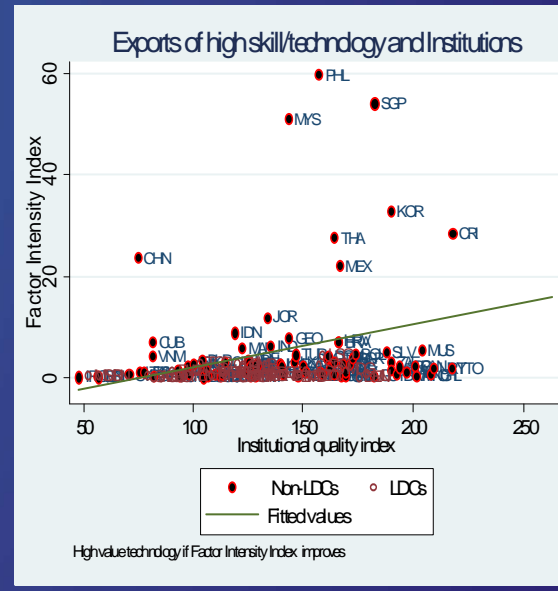
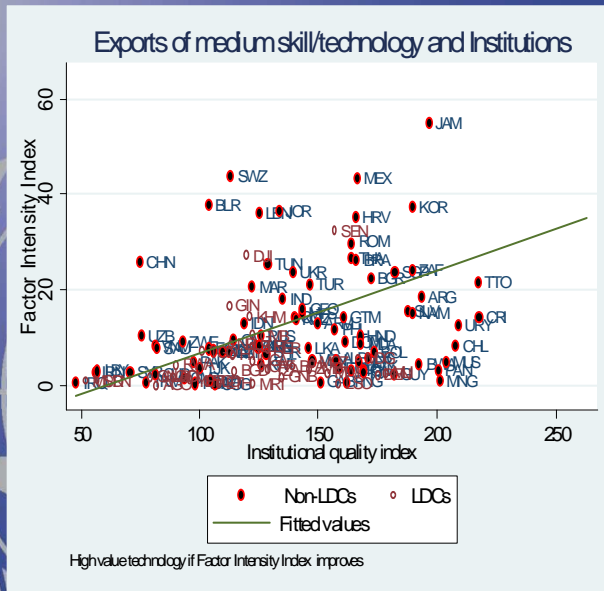
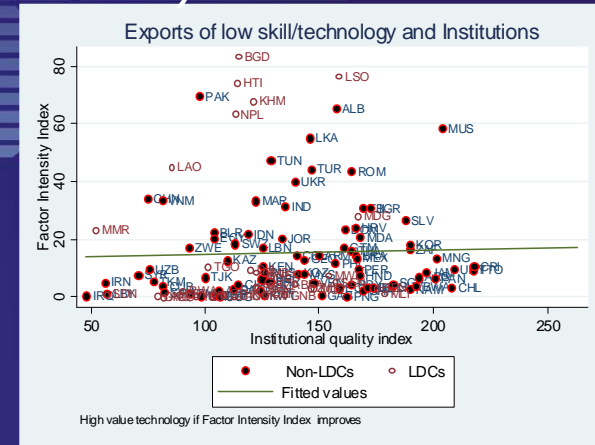
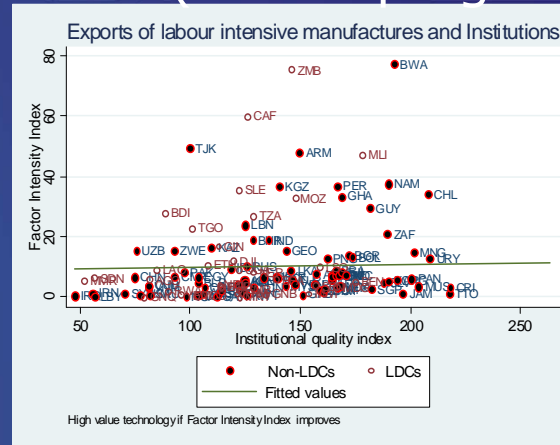
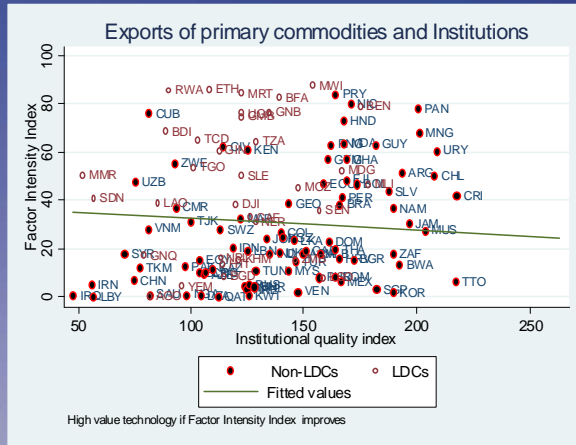
Some correlates

Income and FI categories (Developing countries)



Differential impacts

Institutions and FI categories (Developing countries)



- *Empirical Model Specification:*
 - Core specification (OLS) in Cross-section analysis
 - Dep.var: Factor intensity category (A to G)
 - Indep.Vars: Institutions, economic policies and geography
- *Further issues:*
 - *Reverse causality:*
 - Dealing with endogeneity
 - 2SLS-IV and GMM-IV specification
 - Choice of appropriate specifications
 - *Panel data:*
 - Fixed effects estimates
 - System GMM

Model specification

- IQI=institutional quality index
- EPOL: economic policy, infrastructure, financial variables
- GEOG: geography variable (distance from equator)
- Core cross-section specification

$$FI_{A-G_i} = \alpha_1 + \alpha_2 IQI + \alpha_3 EPOL_i + \alpha_4 GEOG_i + \varepsilon_i$$

- Reverse causality and instruments

$$IQI_i = \beta_1 + \beta_2 AJR / HJ_i + \beta_3 EPOLC_i + \beta_4 GEOG_i + \varepsilon_{IQI_i}$$

$$EPOL_i = \theta_1 + \theta_2 EPOL_i + \theta_3 AJR / HJ_i + \theta_4 GEOG_i + \varepsilon_{EPOL_i}$$

Model specification: Panel data*

- Core panel specification

$$FIA - G_{it} = \alpha_i + \alpha_2 IQI_{it} + \alpha_3 EPOL_{it} + \varepsilon_{it}$$

- Dynamic panel specification (AB/BB)

$$\Delta FIA - G_{it} = \gamma \Delta FIA - G_{i,t-1} + \beta_1 \Delta IQI_{it} + \beta_2 \Delta EPOL_{it} + \Delta \varepsilon_{it}$$

*Results not reported here..

Further exploration

- **Independent variables:**
 - **Macroeconomic:** Inflation, REER, Fiscal Balance
 - **Financial:** Credit to private sector
 - **Infrastructure:** Telephone lines, Road, Railway
 - **Geography:** Tropical, Population close to coast
 - **Natural Resource:** Fuel, Arable land
 - **Level of development:** Non-linearity of GDP pc

Cross-section

Dependent variable: Factor intensity, national exports share (%), average 1995-2007

<u>Panel 1</u>	FI_A	FI_B	FI_C	FI_D	FI_E	FI_F
IQI	-0.04836	.0094253	.0149505	.1721955***	.0854334***	-.2429435***
	-1.32	0.64	0.67	9.12	6.13	-5.44
R-squared	0.0104	0.0014	0.0020	0.3604	0.1749	0.1980
F-stat (p-value)	0.1873	0.5257	0.5051	0.0000	0.0000	0.0000
#Countries	144	144	144	144	144	144

Note : Robust SE, t-stat in parentheses

*** Sig 1%, ** Sig 5%, *Sig 10%

Policy variables

Cross-section

Dependent variable: Factor intensity, national exports share (%), average 1995-2007

Panel 1	FI_A	FI_B	FI_C	FI_D	FI_E	FI_F
IQI	.1548015***	.0683927**	-.013472	.0961492***	.0205857	-.3250067***
Geography	-.2330471***	-.1260341**	.0769746	.1362626***	.0610164*	.0696848
Human capital	-.3754431***	-.1311935*	.076027	-.0433331	-.0370929	.4724493***
Infrastructure	-.1575253**	.0570512	.0602902	.0772891*	.0028482	-.0340994
Financial market	-.1213637***	-.0708783**	-.0458847	.1158475***	.1582788***	-.0428217
R-squared	0.3909	0.1102	0.0476	0.5672	0.4195	0.2527
F-stat (p-value)	0.0000	0.0924	0.0924	0.0000	0.0000	0.0000
#Countries	132	132	132	132	132	132

Note : Robust SE, Constants are included, ** Sig 1%, ** Sig 5%, *Sig 10%

Cross-section (developing countries)

Dependent variable: Factor intensity, national exports share (%), average 1995-2007

Panel 1	FI_A	FI_B	FI_C	FI_D	FI_E	FI_F
IQI	.1806135***	.0819537**	.0192549	.0757046**	.0303518	-.385443***
Geography	-.1276033	-.121688	.1284948	.0743342	.0572822	-.0204501
Human capital	-.380162***	-.132828*	.0662657	-.0238329	-.031013	.4715819***
Infrastructure	-.2079183**	.0690251	.0449361	.081749*	-.0054168	.0118154
Financial market	-.098978	-.0756016	.0033213	.0880937**	.2055736***	-.1290816
R-squared	0.3280	0.0964	0.0489	0.2542	0.3469	0.2526
F-stat (p-value)	0.0000	0.1847	0.2518	0.0000	0.0000	0.0000
#Countries	107	107	107	107	107	107

Note : Robust SE, Constants are included, ** Sig 1%, ** Sig 5%, *Sig 10%

Conclusions

- South market share is on rise, but Asia is main driver of this new dynamism.
- South exports factor-intensity content is changing, with more rising share is coming from medium to high-skilled and technology content products in goods trade.
- Preliminary empirical results identify the positive role of institutional quality in determining stages of factor-contents of developing countries goods exports during 1995-2007.
 - In the benchmark model specification, the higher level of institutional quality, along with economic policies and other related factors, leads to higher factor-contents of technology related exported products.
- Results can answer some specific issues related to regions that help us to understand the new-geography models of trade theory. It also indicates the key role of supply side factors and/or the domestic policies in understanding the transformation of countries trade structure.
 - The analysis is important to understand the climbing up of ladder by South-South economies in new geography of international trade.
 - Need to re-emphasize the hand-in-hand approach in making institutional quality and supply-side factors to work together to raise policy coherence and help develop inclusive trade and development strategy at the national level.



Thank you!

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