

# GLOBAL VALUE CHAIN AND TRADE FACILITATION: *THE CASE FOR SUSTAINABLE TRADE AND DEVELOPMENT*

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ESCAP/ARTNET - ITD TRADE FACILITATION FOR SUSTAINABLE DEVELOPMENT  
REGIONAL WORKSHOP 2019

23 SEPTEMBER, 2019

UNCC, BANGKOK THAILAND



International Institute for  
Trade and Development

# GLOBAL SUPPLY CHAIN SHIFTS

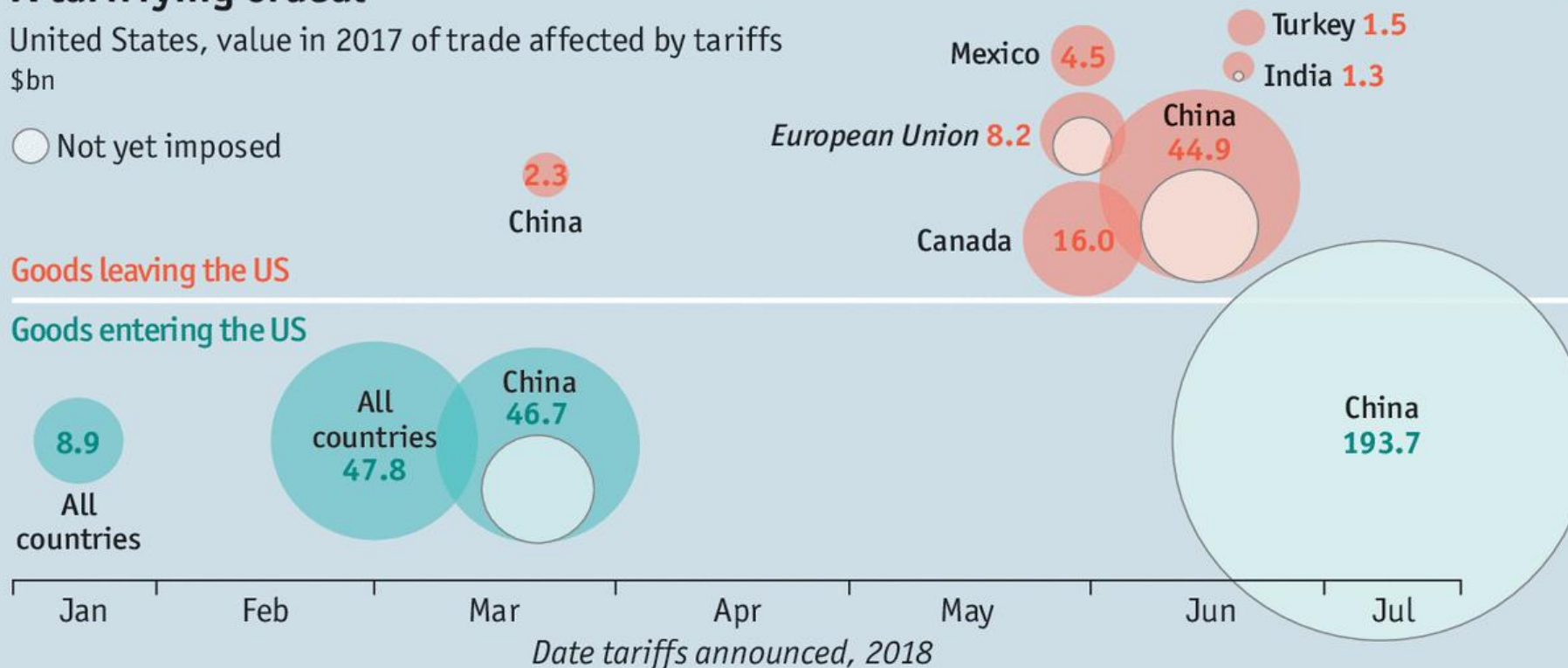
## A tariffing ordeal

United States, value in 2017 of trade affected by tariffs  
\$bn

○ Not yet imposed

Goods leaving the US

Goods entering the US



Sources: Census Bureau; Peterson Institute for International Economics; Squire Patton Boggs; WTO; *The Economist*

# In Pursuit of Productivity and Innovation – Flipside to G6 Trends on Capital Intensity

*How different nations adjust supply chains due to the trade war*

- Completely transforming the production and supply chain
- Making major changes in response
- Making small changes in response
- Do not see need to change at present

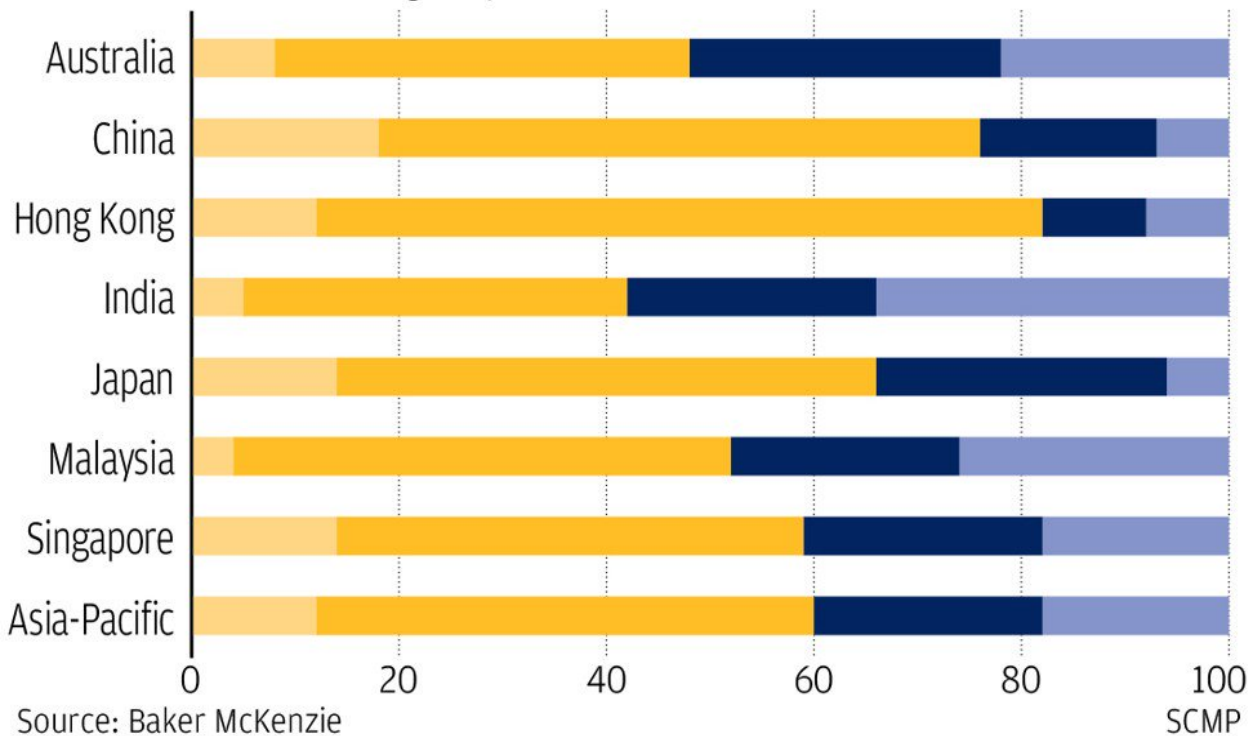
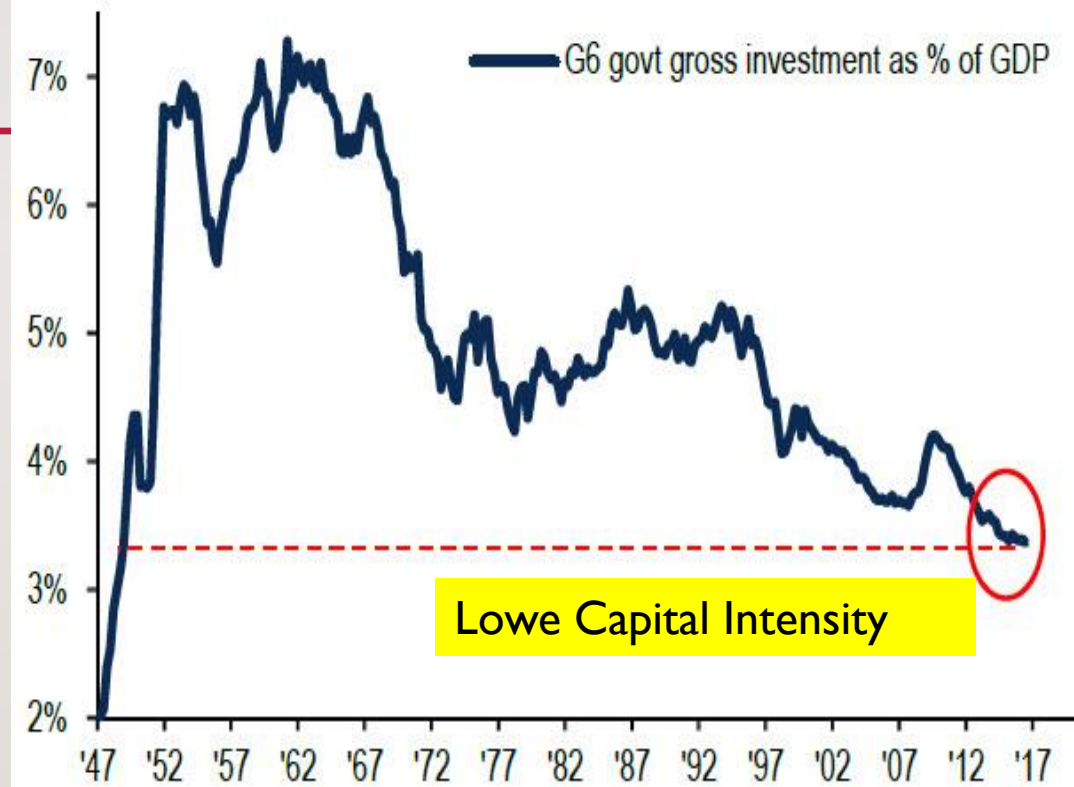


Chart 2: G6 gov't gross investment as % GDP is lowest since 1948

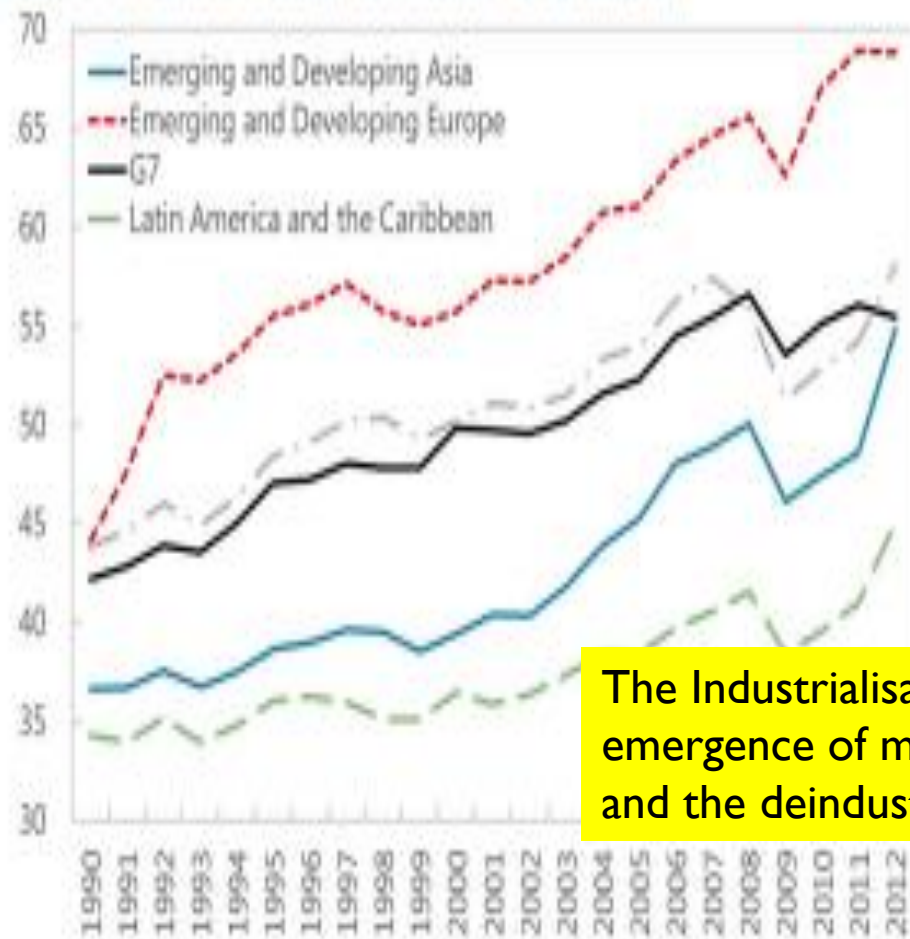


\* US from 1949-1987; 1987-onwards = US, Canada, UK, Germany, France & Japan  
Source: BofA Merrill Lynch Global Investment Strategy, Haver



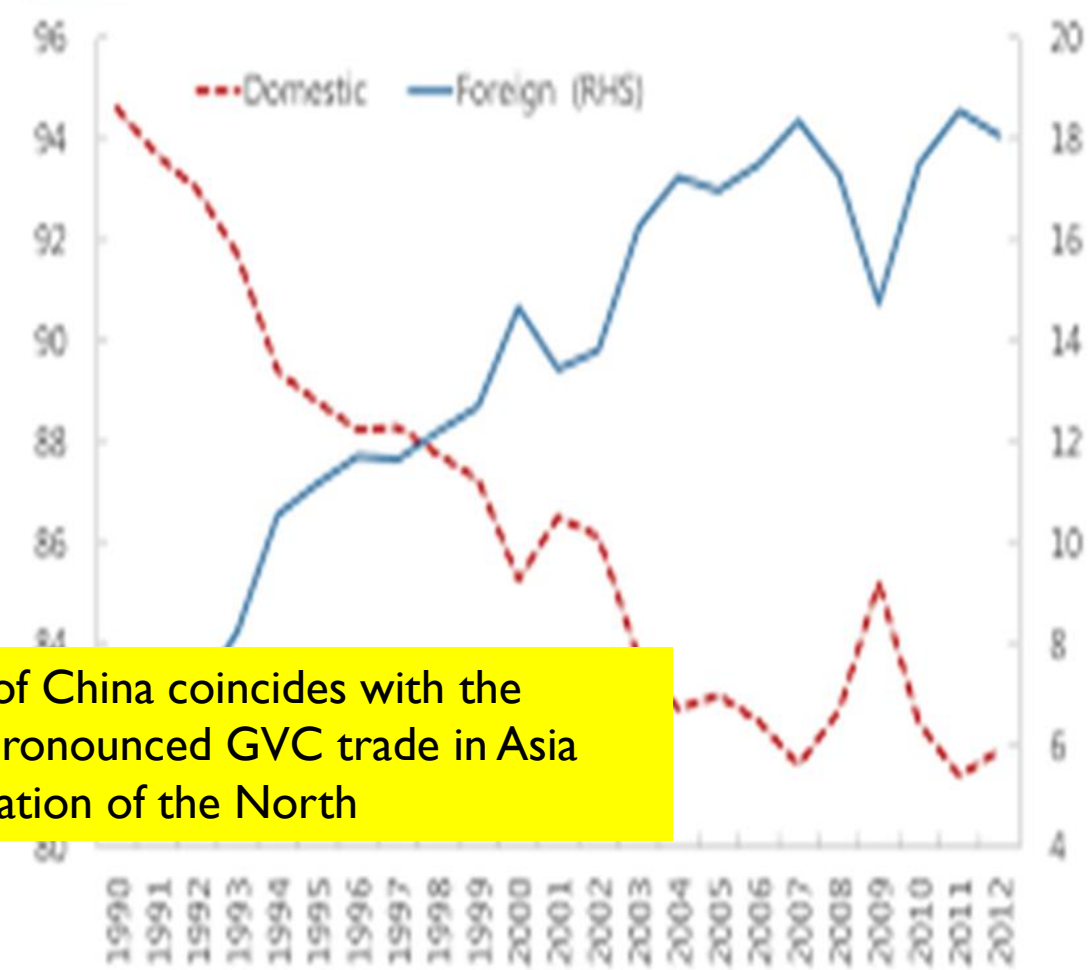
## Global value chain participation index by region

(share of domestic and foreign value added in gross exports)



## China: Global value chain participation by source of input

(percent)



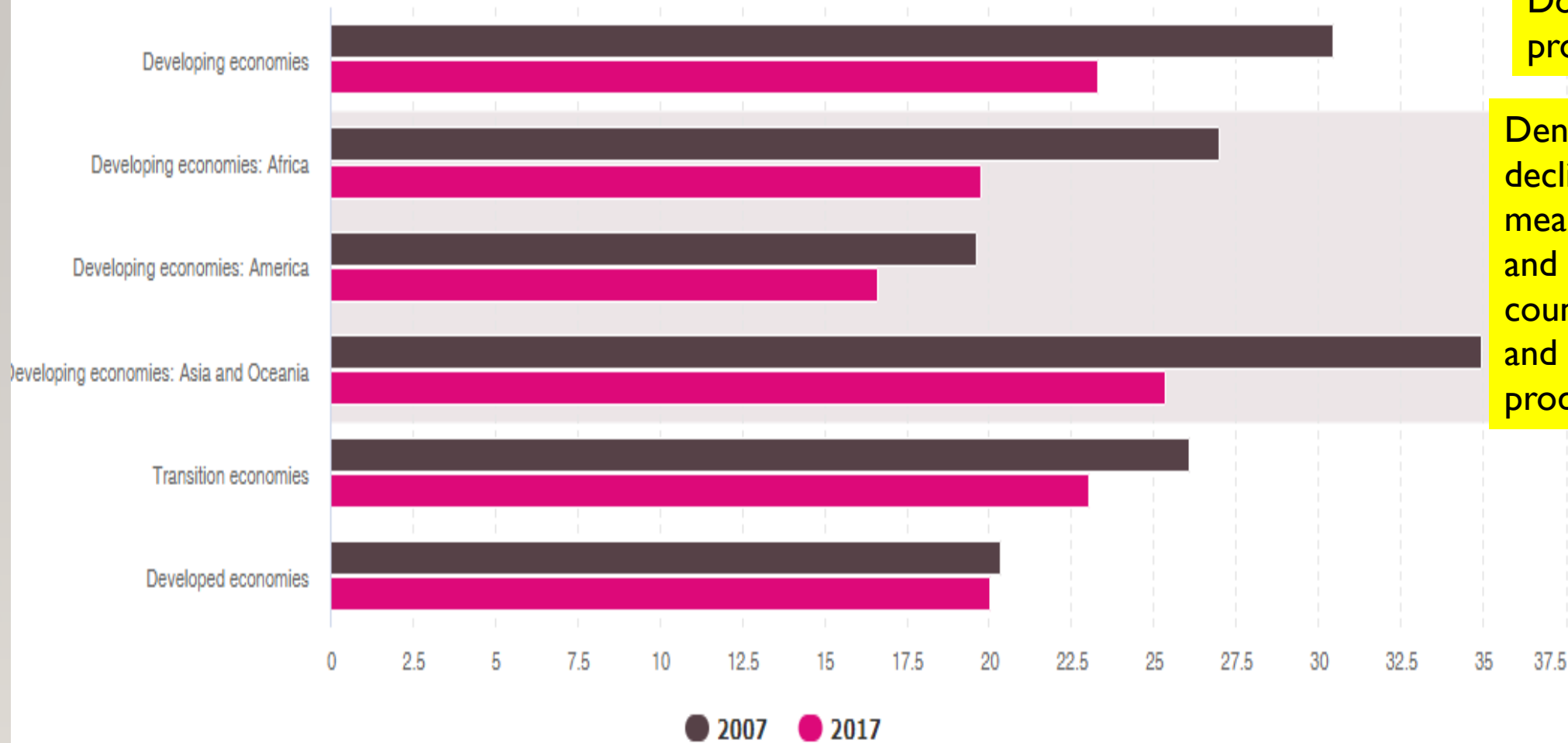
The Industrialisation of China coincides with the emergence of more pronounced GVC trade in Asia and the deindustrialization of the North

# TRADE OPENNESS INDEX (2007 VS. 2017)

Measures  
Export to  
Domestic  
production

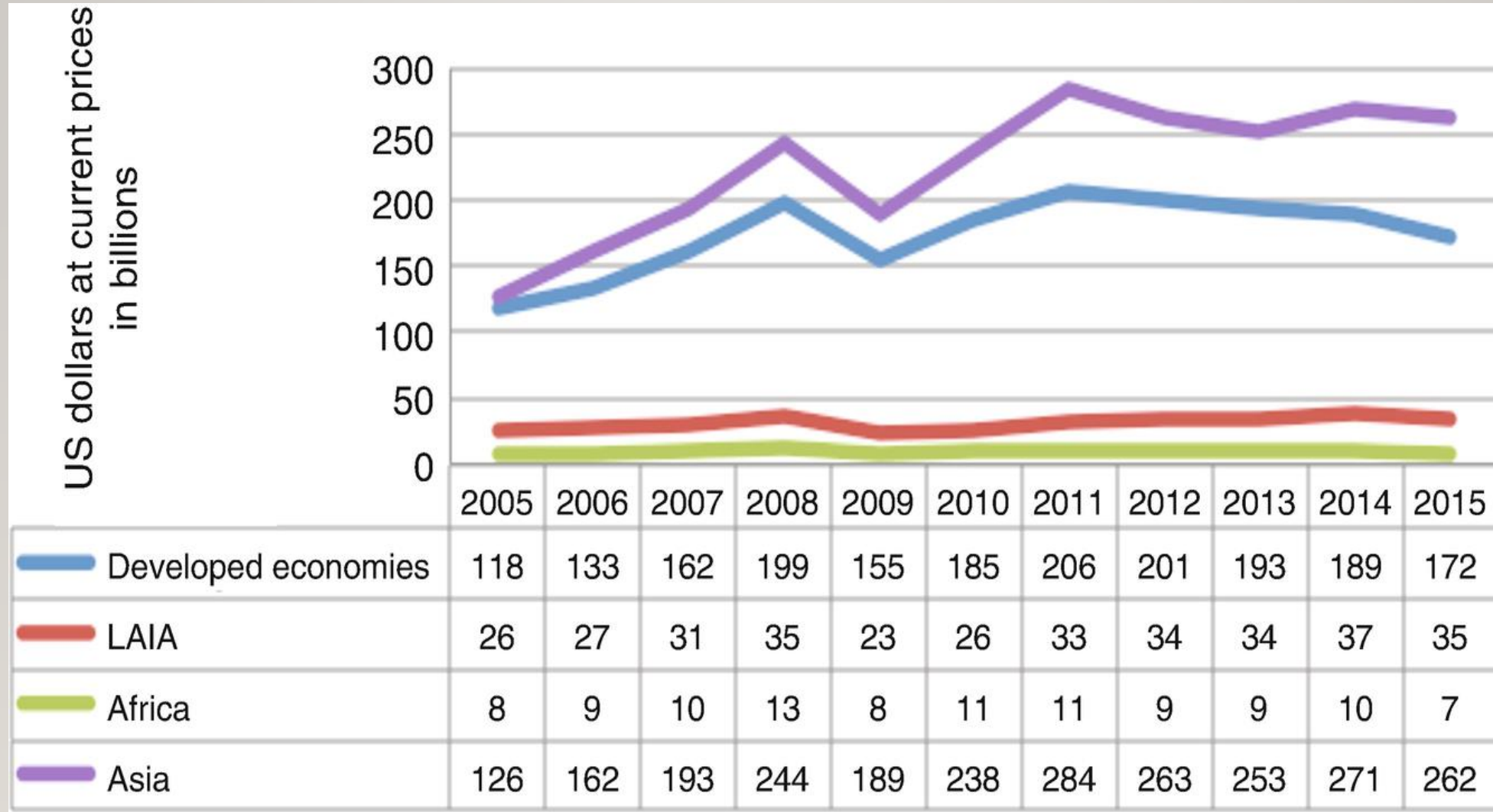
Denotes a gradual  
decline of Openness  
meaning more LDCs  
and developing  
countries are importing  
and involved in GVC-  
production

Most  
prevalent in  
developing  
Asia and  
Oceania and  
Africa



Source: UNCTAD 2019

# GLOBAL VALUE CHAIN : EXPORT VALUE





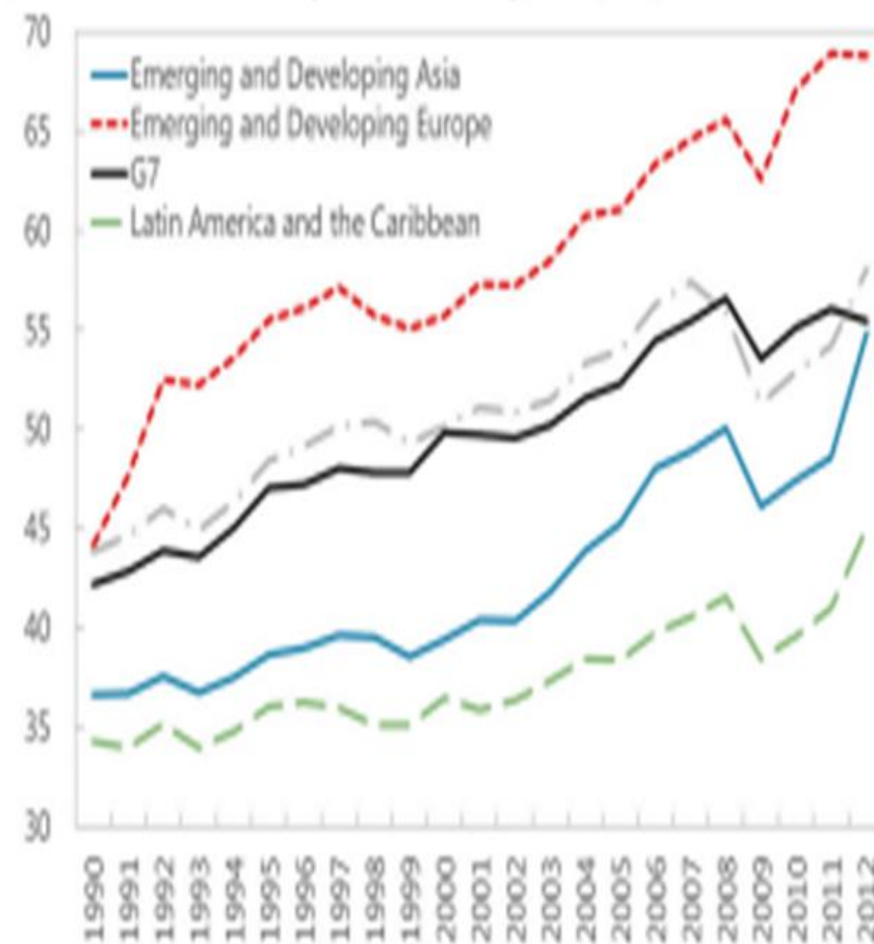
**Table 4.2** Intraregional exports as a share of total merchandise exports, 1990 and 2010

Regions	1990	2010
Developing countries	35.9	56.3
Latin America and the Caribbean	16.1	20.7
Western Asia	6.7	10.3
Eastern Asia	26.2	30.8
Southern Asia	4.6	7.2
South-eastern Asia	19.2	25.2
North Africa	3.3	4.1
Sub-Saharan Africa	12.5	20.3
<b>Memo items</b>		
Developing countries excluding China	31.9	45.2
Economies in transition	19.1	14.2
North-North	77.2	68.8
EU	65.3	65.3
North America (developed economies)	34.2	32.3

Source: UN COMTRADE online database.

### Global value chain participation index by region

(share of domestic and foreign value added in gross exports)

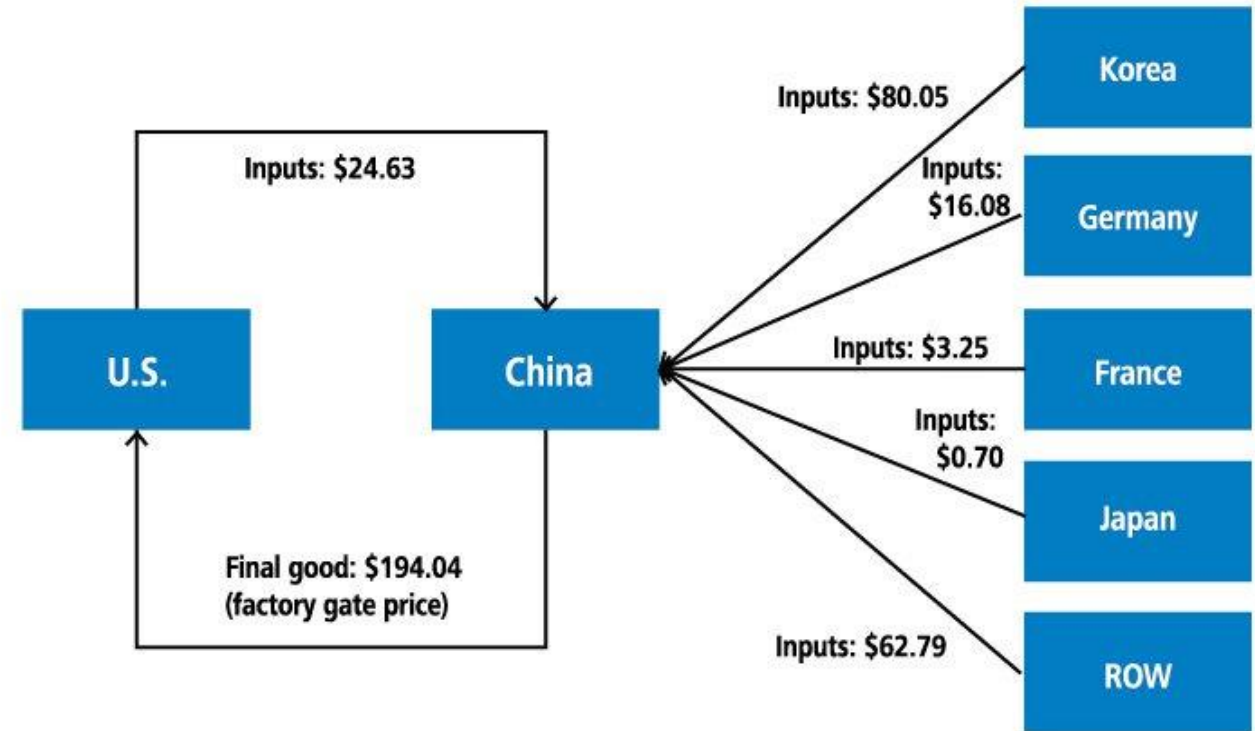


## Trade Openness

(as a percent of GDP)



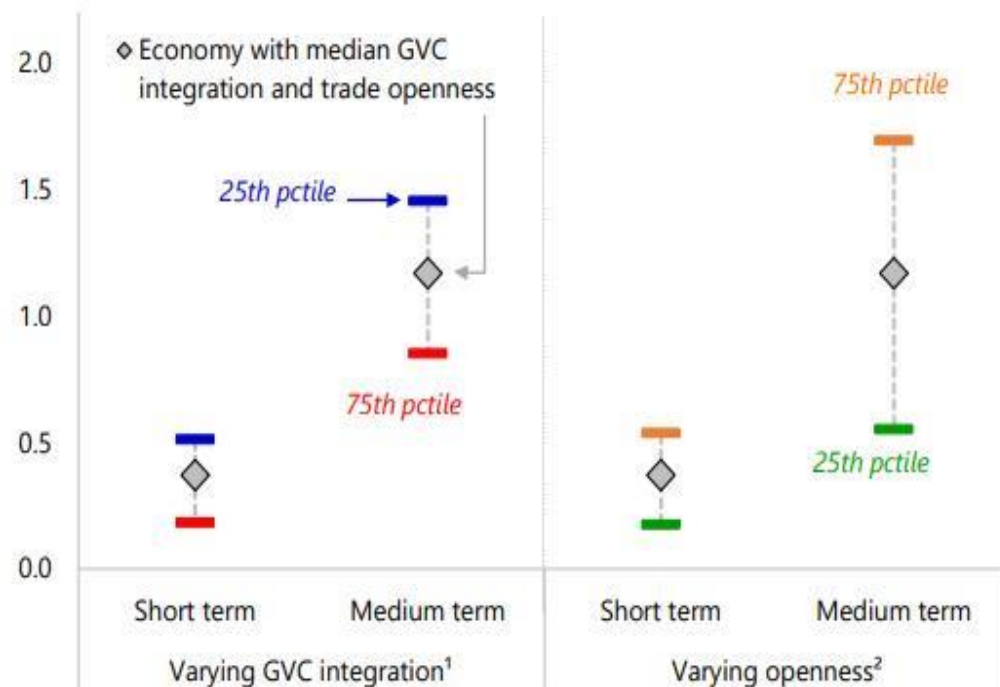
Source: OECD



Us trade balance with	China	Korea	Germany	France	Japan	Rest of world	World Total
Gross	-\$169.41	0	0	0	0	0	-\$169.41
Value added	-\$6.54	-\$80.05	-\$16.08	-\$3.25	-\$0.70	-\$62.79	-\$169.41



### Impact of GVC and Trade Openness on Trade Balance Response (Response to a 10 percent depreciation vis-à-vis all currencies)

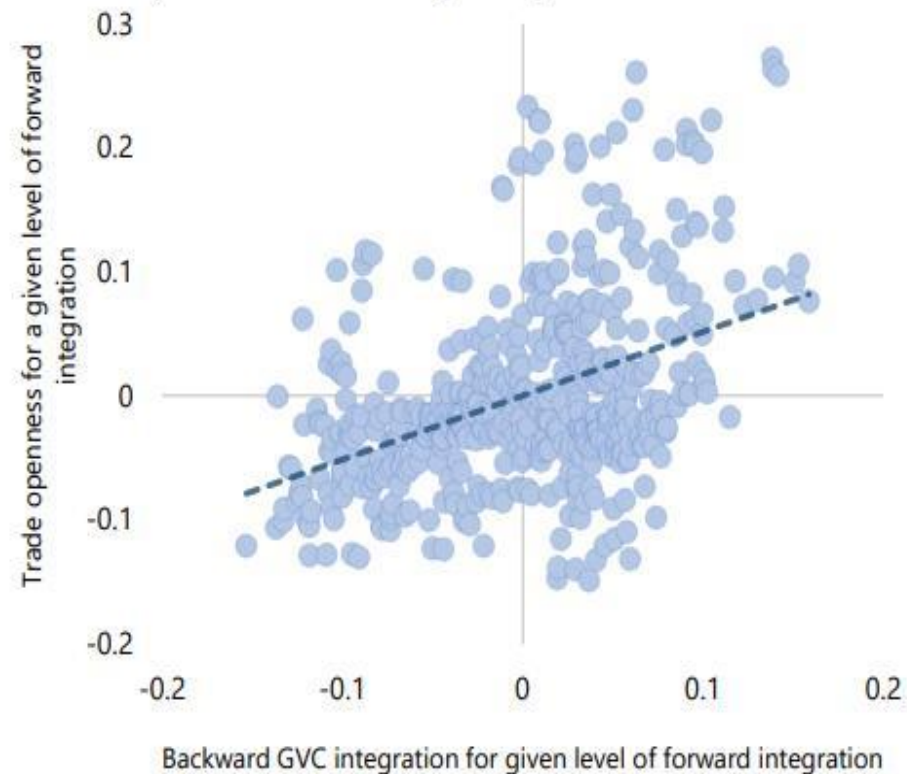


Sources: IMF staff estimates based on dataset from Gopinath and others (2018), WIOD 2016.

<sup>1</sup>Openness fixed at the level of the median economy.

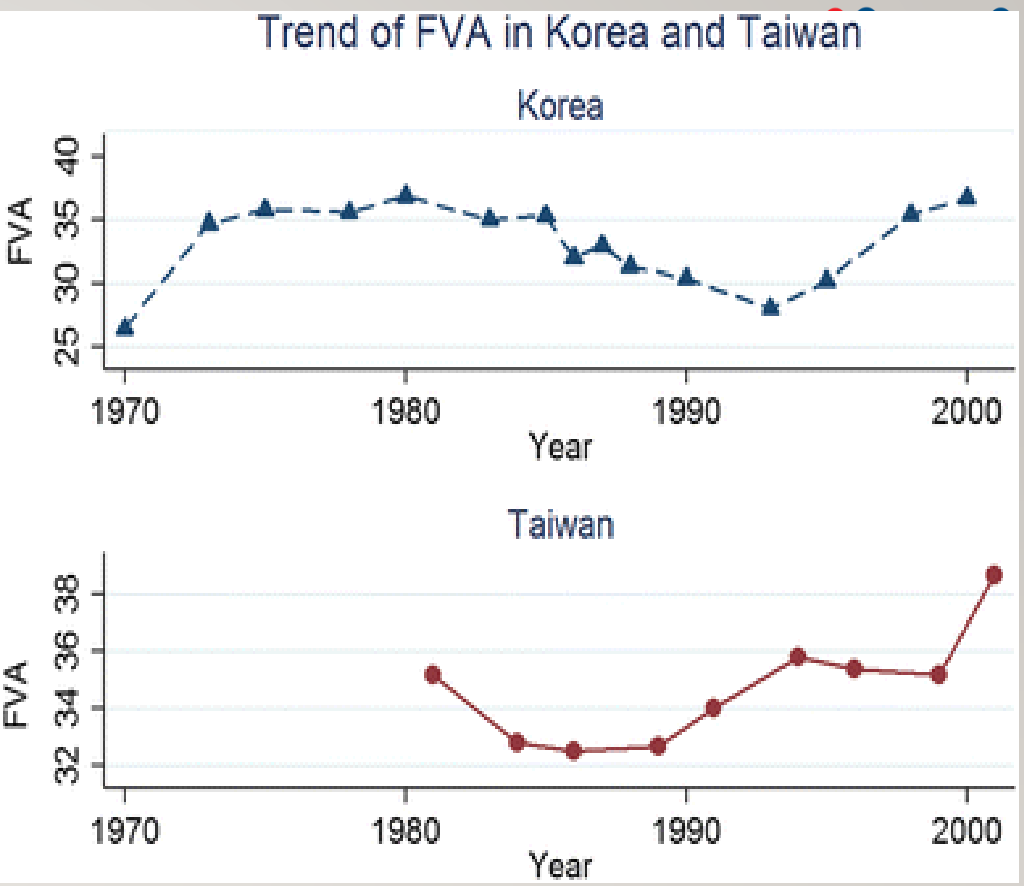
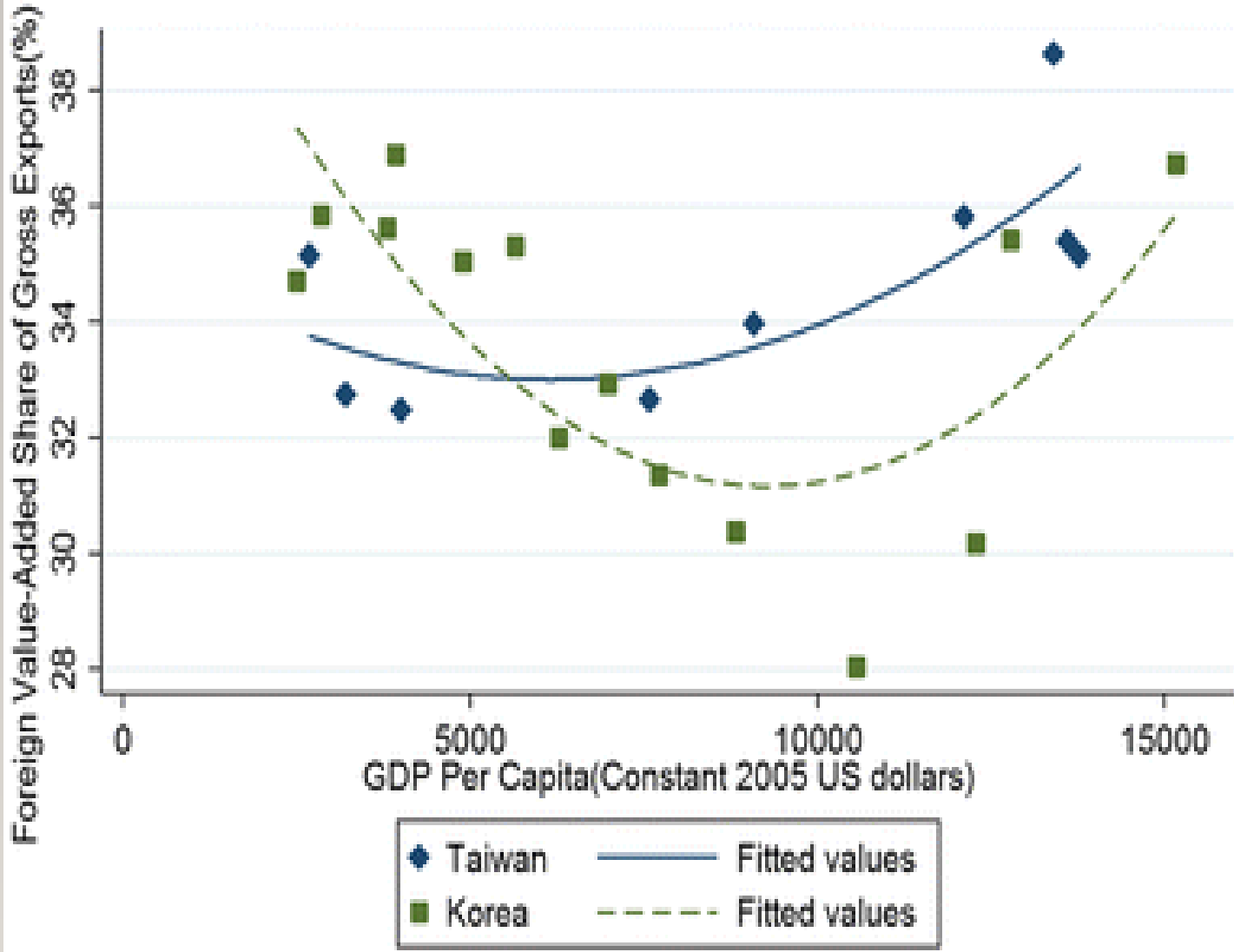
<sup>2</sup>Backward and forward GVC integration fixed at the level of the median economy.

### Correlation between GVC and Trade Openness (backward GVC integration)

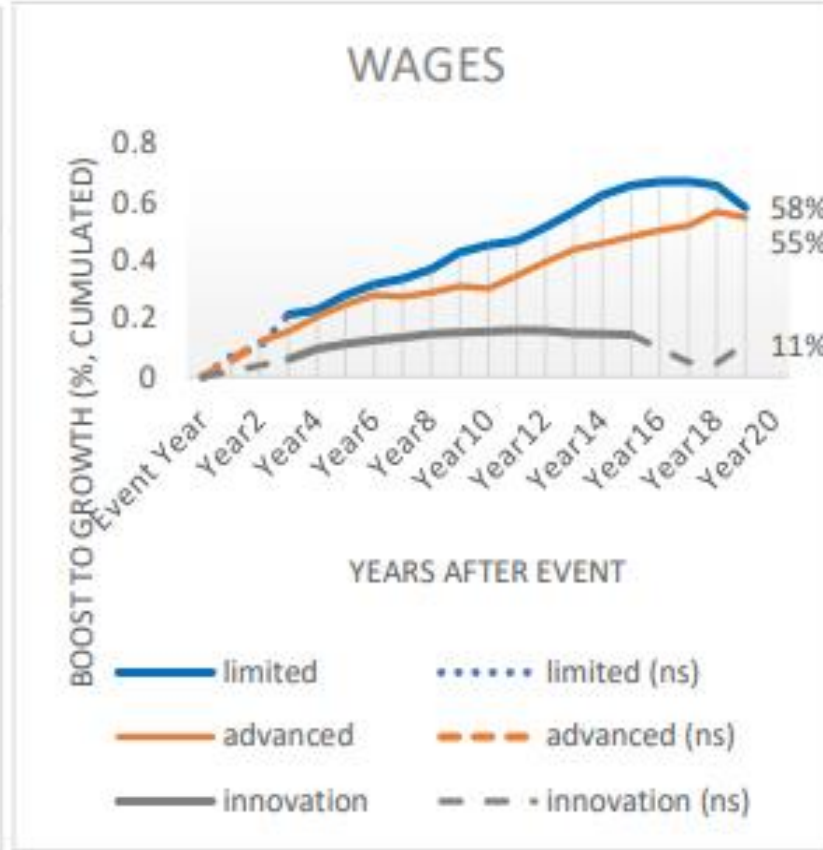
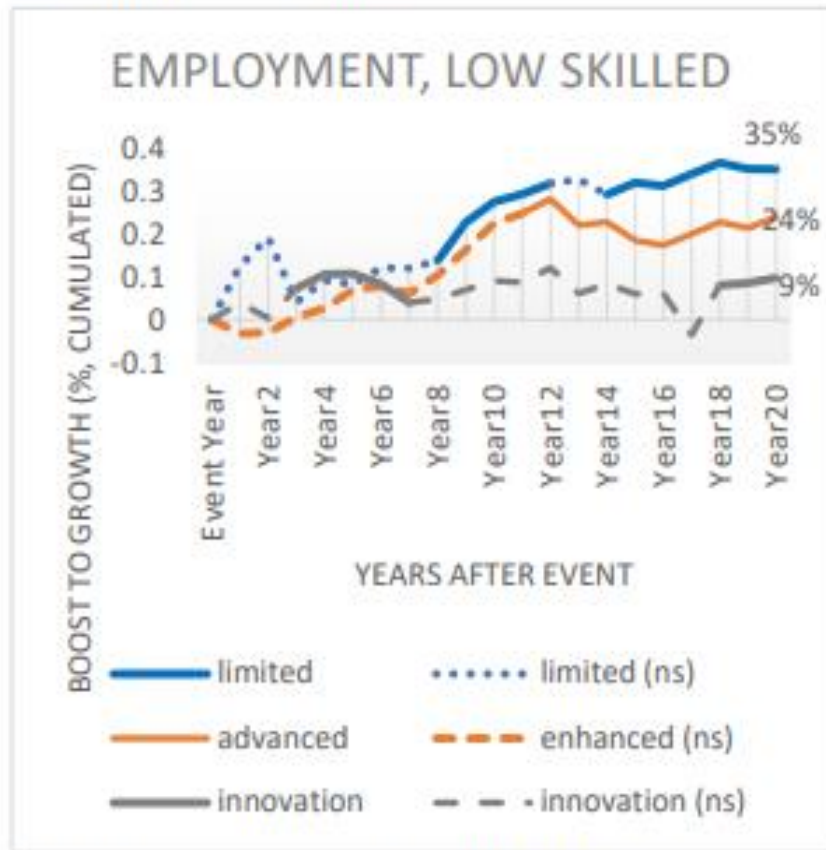


Sources: IMF staff estimates.

# Estimation GVC and Per Capita Income in Korea and Taiwan

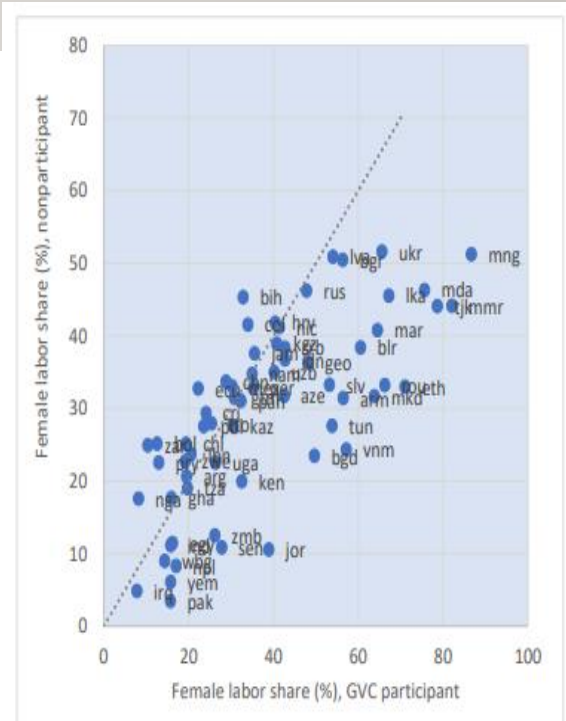


# IMPROVE JOB HIRES, WAGES AND WOMEN PARTICIPATION



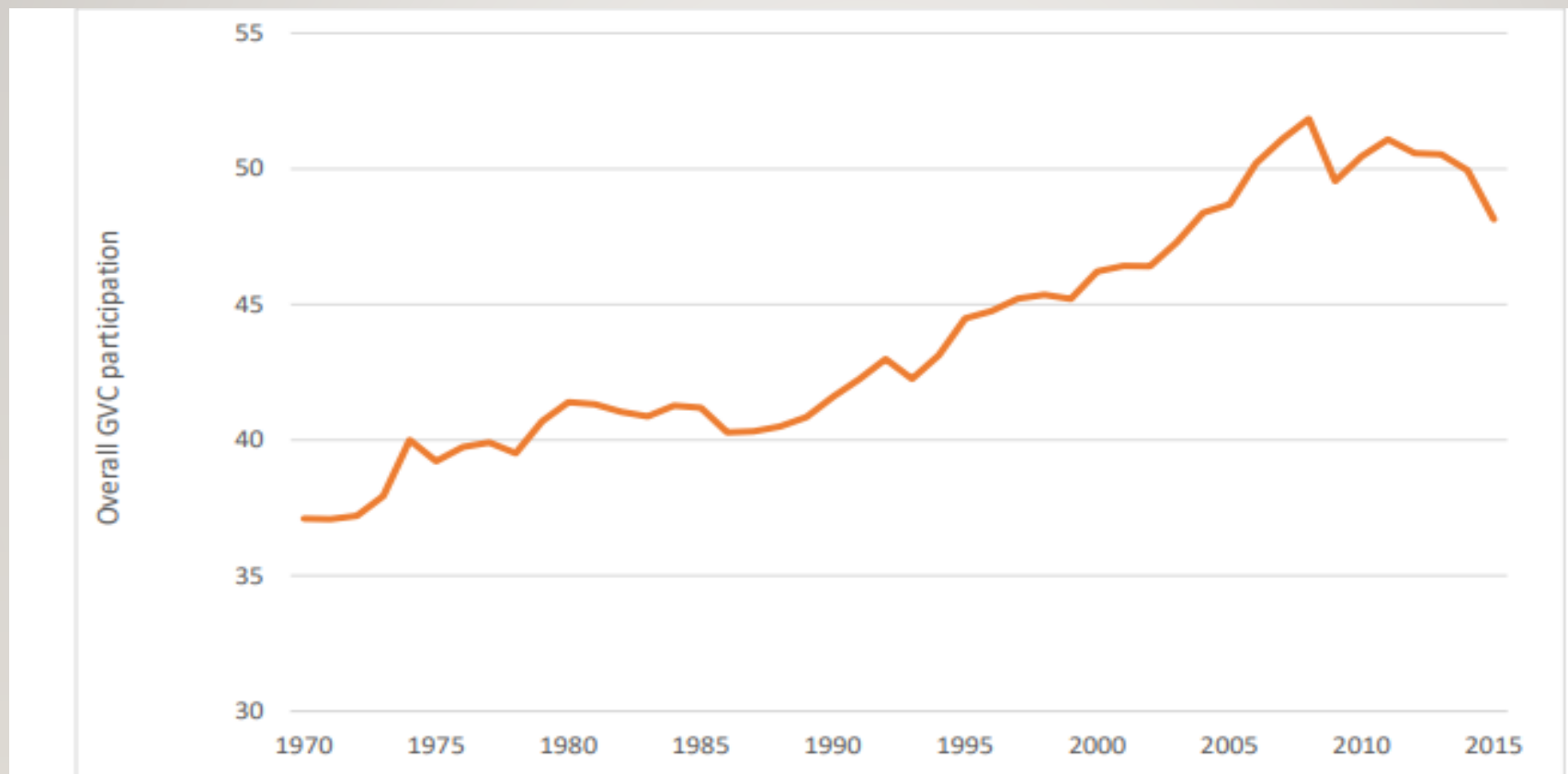
Source: Authors using data from WDI and EORA.

Note: The event study quantifies the change in cumulated employment and wage growth in the 20 years following a switch from a lower level to a higher level of GVC engagement. Dotted lines indicate statistically non-significant coefficients. Details are provided in Chapter 3.

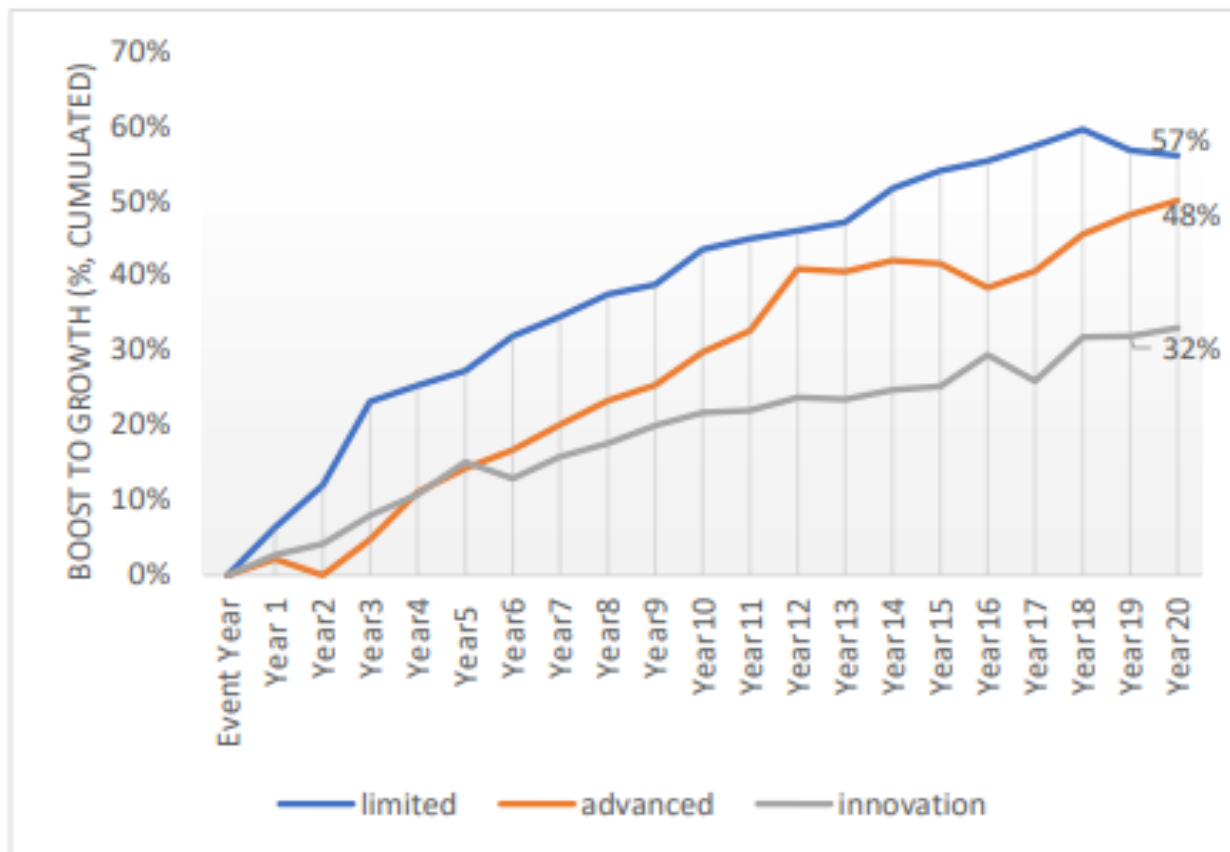




# STAGNATION OF GVC TRADE AFTER “2008”



# WORLD DEVELOPMENT REPORT 2020 (IN PROGRESS)



Source: WDR Team using data from WDI and EORA.

Note: The event study quantifies cumulated boost to real income growth in the 20 years following a switch from a lower to a higher stage of GVC engagement. See box 3.3 for the methodology.

# GVC PREREQUISITES

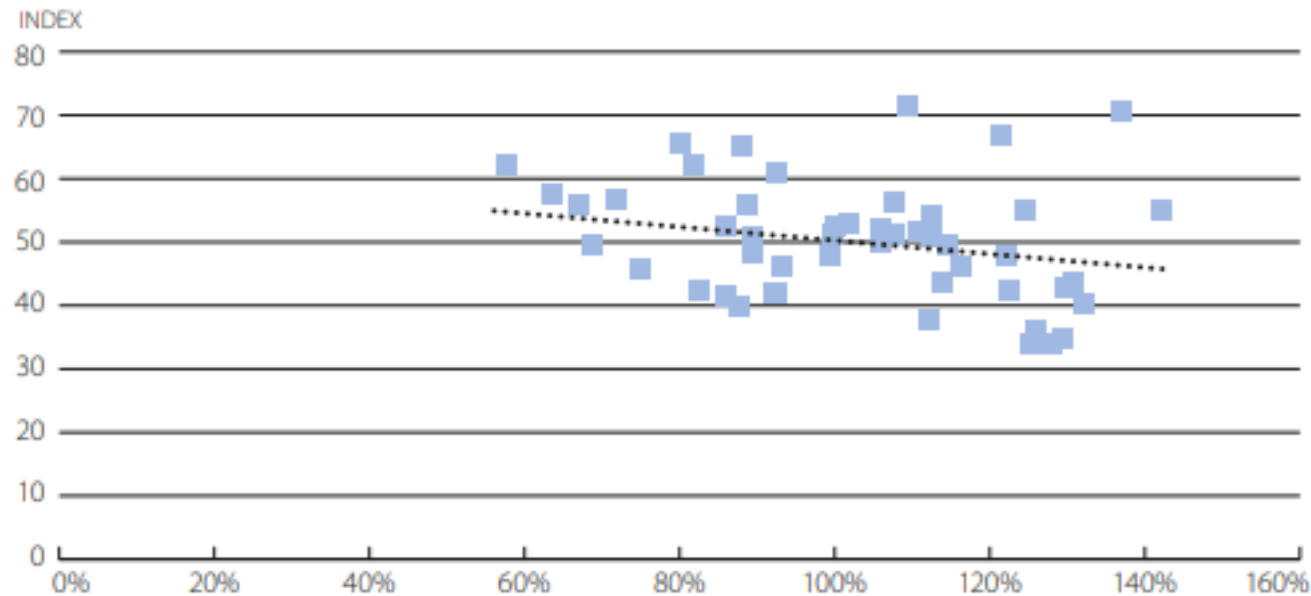
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- Trade Cost
- Logistics Services
- ICT driven Servification
- Connectivity




# TRADE COST KEY ENTRY PREREQUISITES FOR GVC PARTICIPATION

**Figure 2.3 Trade costs in manufacturing versus GVC participation index, 2009**



Source: UNESCAP-World Bank Trade Costs Database; OECD-WTO Trade in Value Added Database.

StatLink  <http://dx.doi.org/10.1787/888933240856>

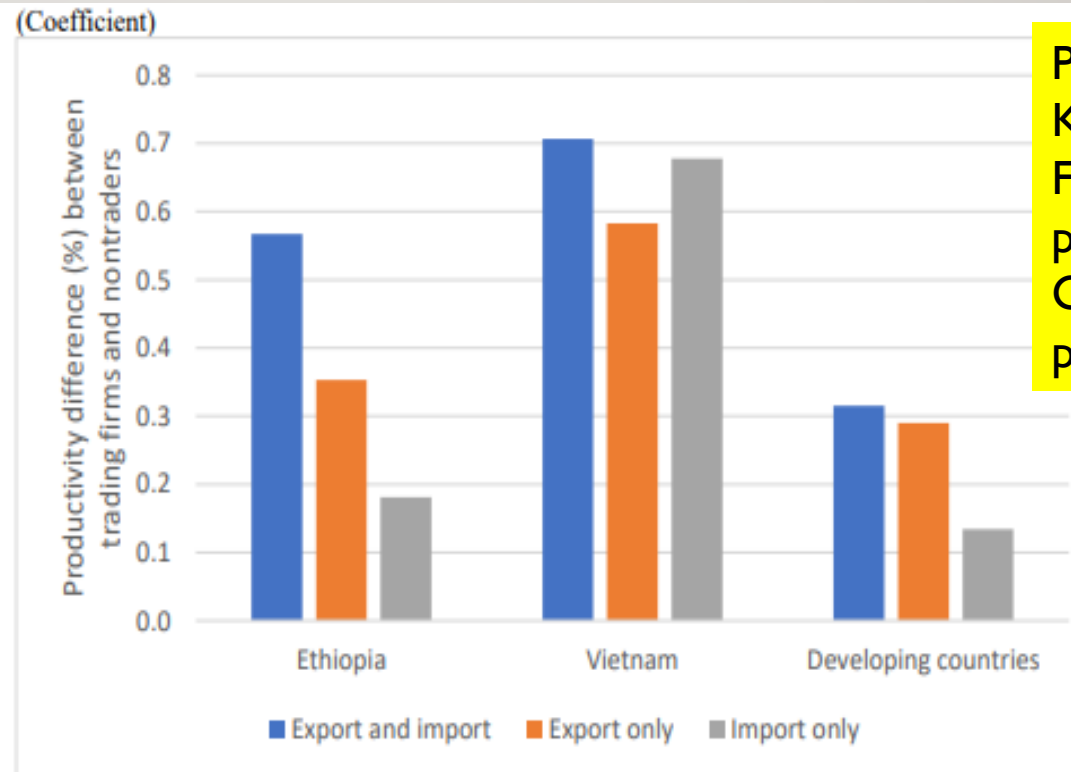
Has important implications on growth of local industries and internationalisation

Further along, promotes the creation of local value and knowledge creation towards an Innovation System locally

# FOR BASIC GVC

Means Govt. must design better trade policies: Import Substitution and Export Promotion Policy not effective!

Trade Facilitation and Trade Logistics is Key to Capture Value!



Productivity is Key!  
Firms that participate in GVC is more productivity!

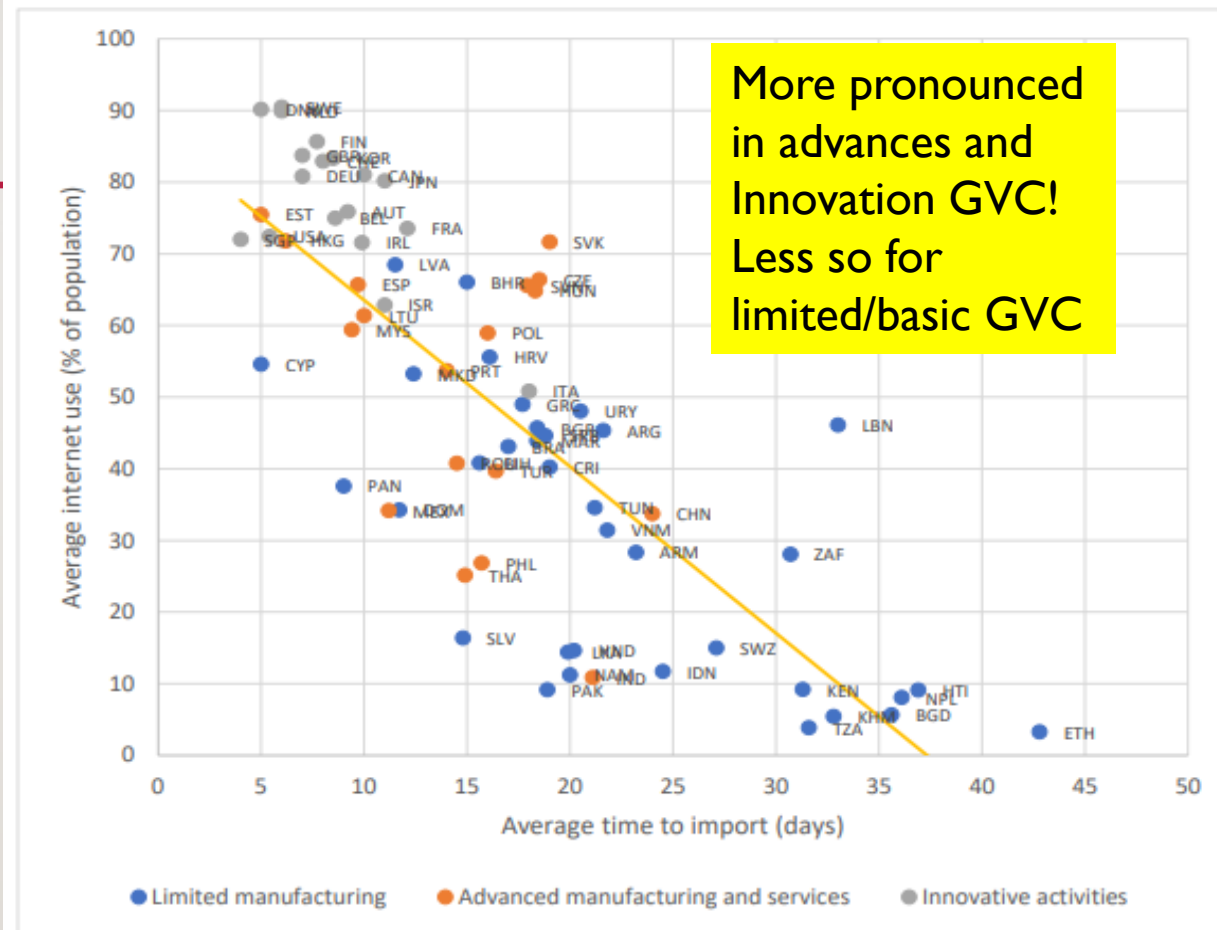
Source: 2014 GSO Enterprise Survey (firms with >5 employees) for Vietnam. 2000–14 manufacturing census (firms with ≥10 employees) for Ethiopia and Choi et al. (2019). World Bank Enterprise Surveys for a developing country sample of 81 countries. Note: The figure plots the coefficient estimates of a regression of log of labor productivity (sales per worker) on dummy variables if the firm exports and imports (GVC firm), exports only, or imports only, controlling for capital per worker. Only statistically significant coefficients reported. The global sample controls for country–sector, subnational region, and year fixed effects. The Ethiopia sample controls for sector, year, and region fixed effects as well as whether the firm is state-owned. The Vietnam sample controls for sector and region fixed effects as well as whether the firm is state- or foreign-owned.

# CONNECTIVITY MATTERS !

To Value Create is not enough. You need to Value Capture via Connectivity enhancing measures

Connectivity does not mean geographic distance but economic distance!

Figure 7 Connectivity matters for specialization in more advanced GVCs



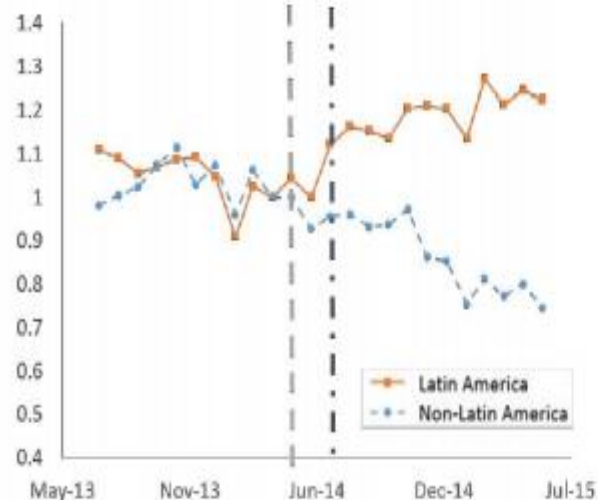
Source: WDR team based on World Development Indicators, Doing Business Database and GVC taxonomy of 2011

Note: Excludes countries specializing in commodities. The x axis shows the average time to import (days) and the y axis the average internet use (% of population) by GVC taxonomy group, with averages over 2006–15.



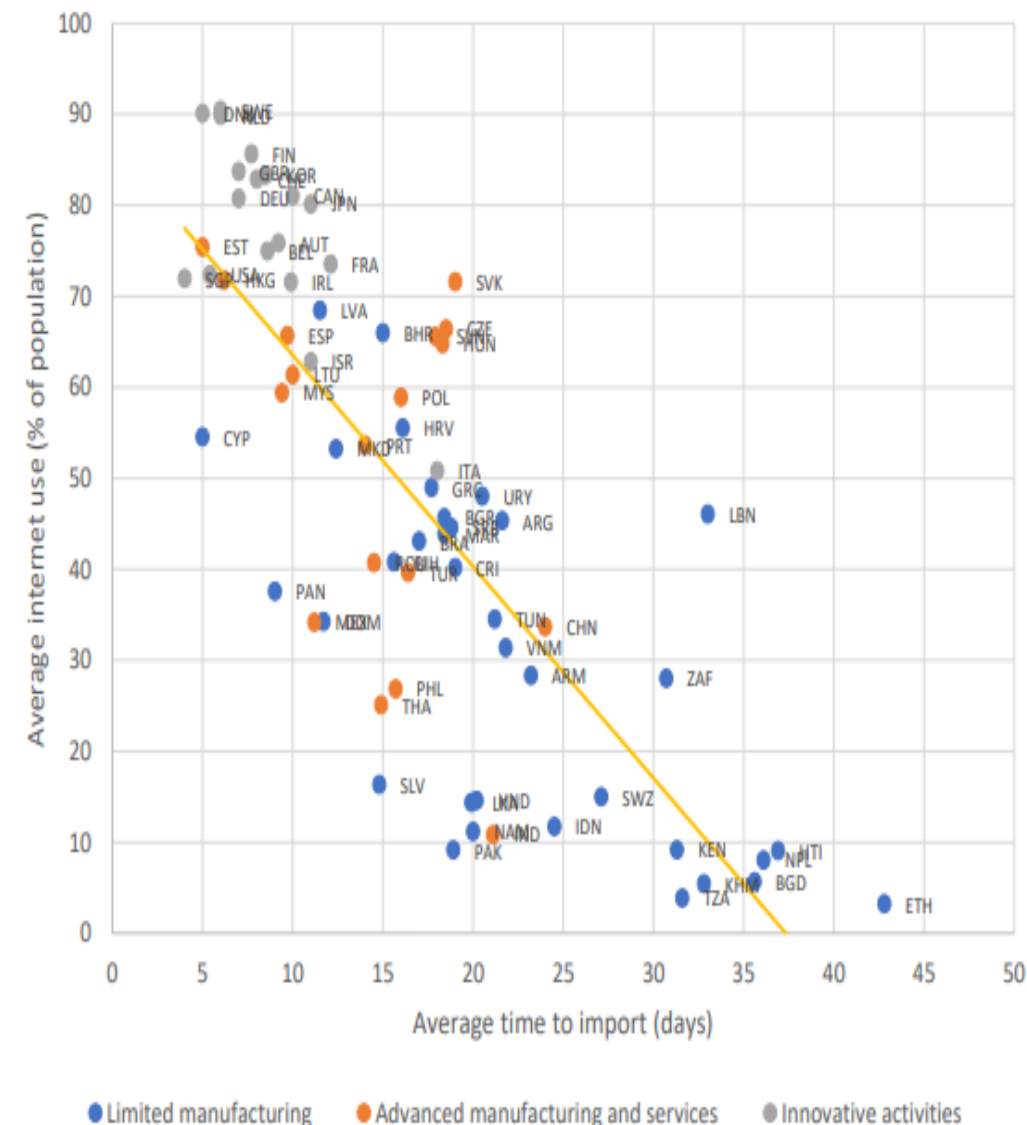
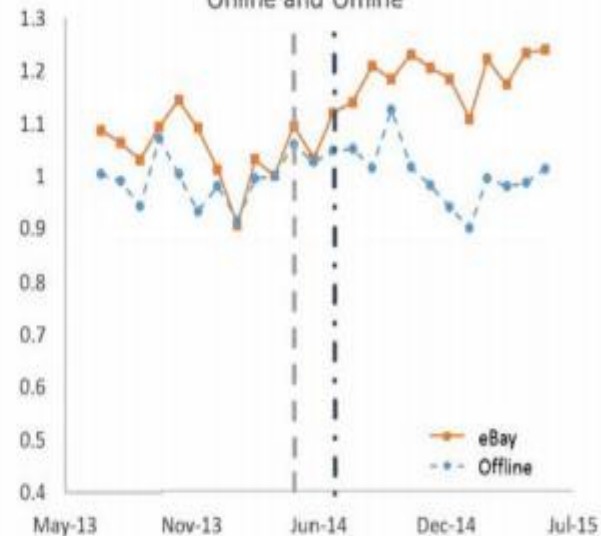
# DIGITILISATION & CONNECTIVITY : KEY FOR ADVANCED GVC

U.S. Exports on eBay  
Latin America and Non-Latin America



Source: Brynjolfsson, Hui, and Liu 2018.

U.S. Exports to Latin America  
Online and Offline

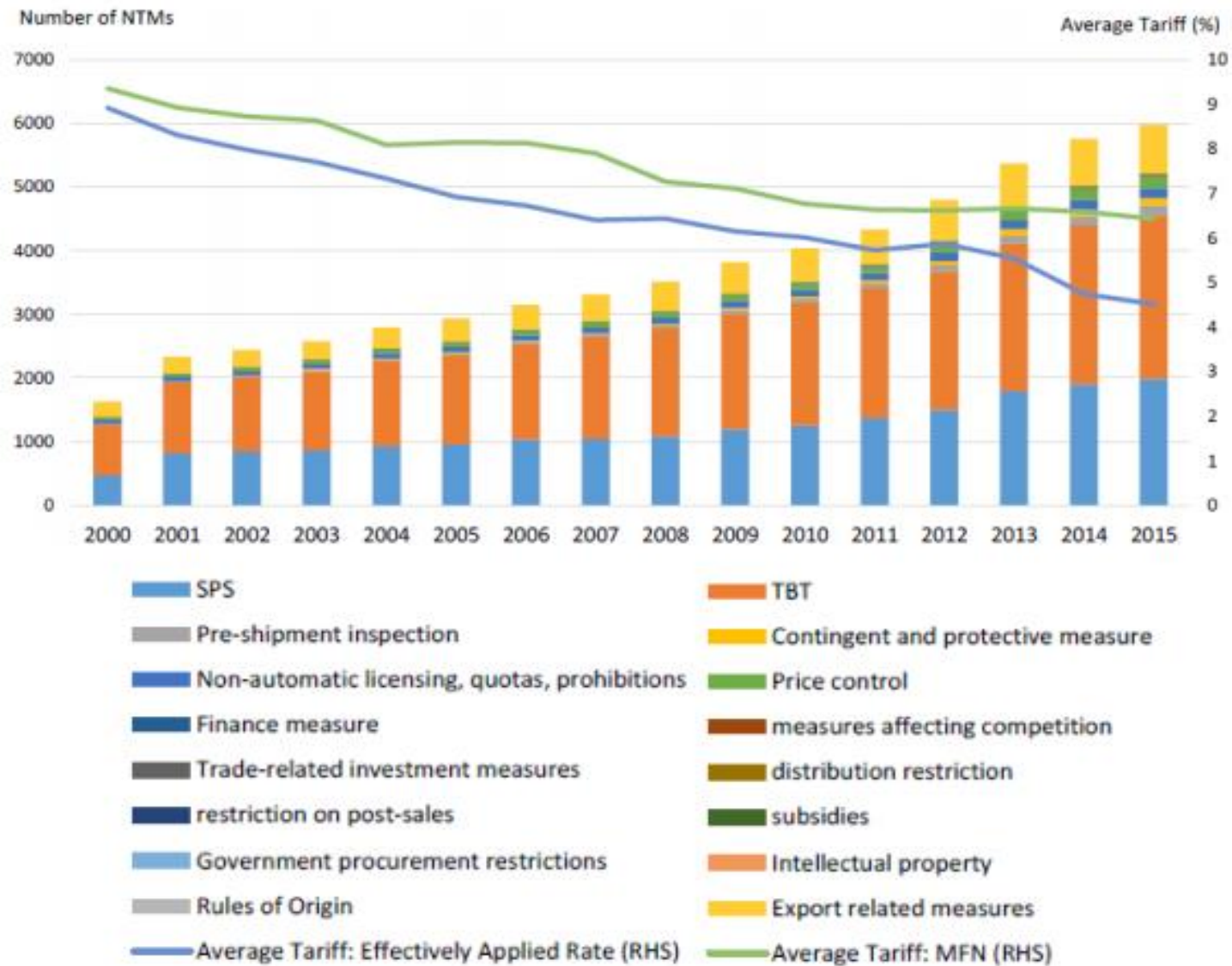


Source: WDR team based on World Development Indicators, Doing Business Database and GVC taxonomy of 2011

# ACCELERATORS OF TRADE COST REDUCTION

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- Trade Facilitation Mechanisms
- NTM reduction
- Logistics infrastructure and logistic services
- Regional Trade Agreements/Regional Integration
- Technology and Servification Transformation

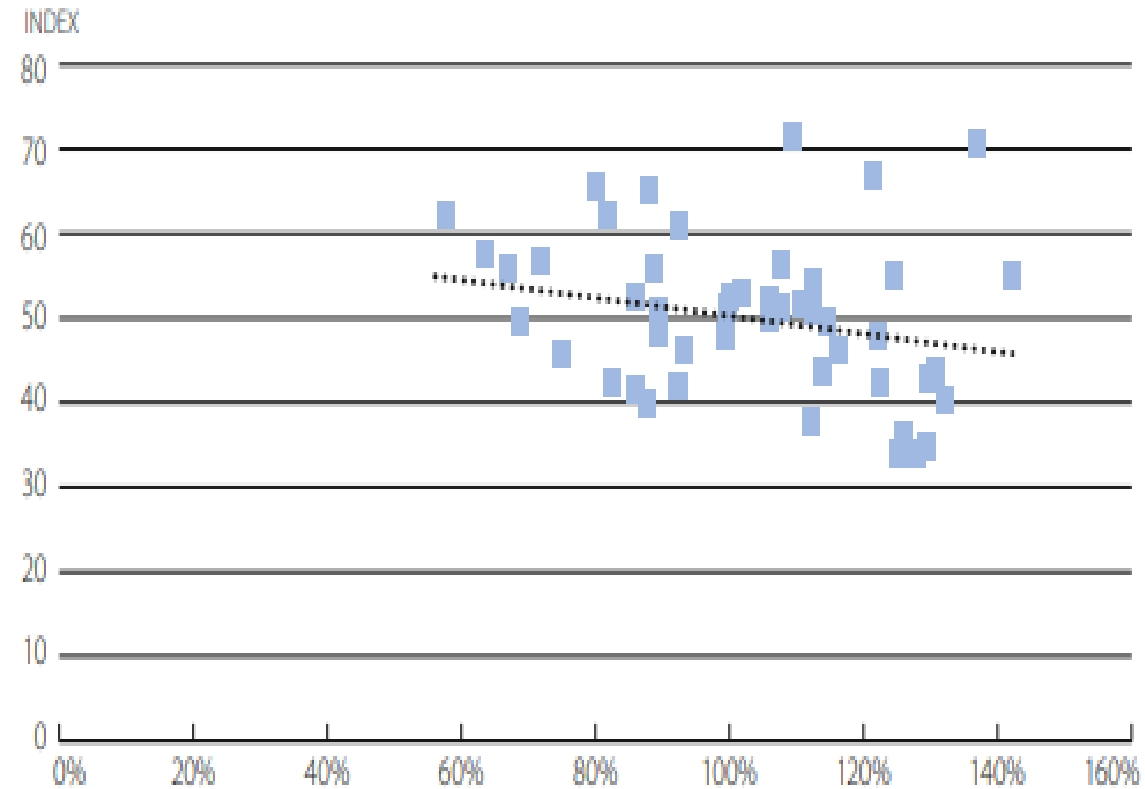


Source: Ing, L. et al (2016), *Non-Tariff Measures in ASEAN: A Simple Proposal*, in Ing, L.Y., S. F. de Cordoba and O. Cadot (eds.), *Non-Tariff Measures in ASEAN*. ERIA Research Project Report 2015-1, Jakarta: ERIA, pp.13-36



# GVC LOWERS TRADE COST

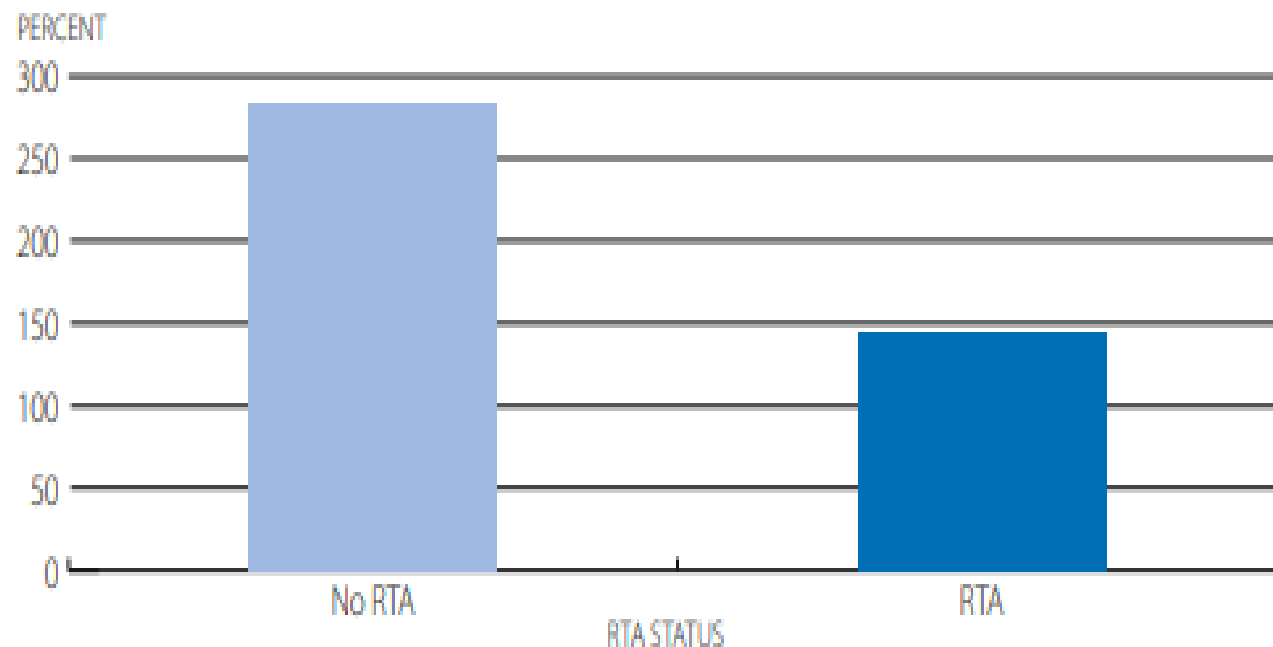
**Figure 2.3 Trade costs in manufacturing versus GVC participation index, 2009**



Source: UNESCAP-World Bank Trade Costs Database; OECD-WTO Trade in Value Added Database.

# MAXIMISING TRADE AGREEMENTS AND TRADE FACILITATION

**Figure 2.13 Trade costs for country pairs not in an RTA versus in the same RTA, 2012**



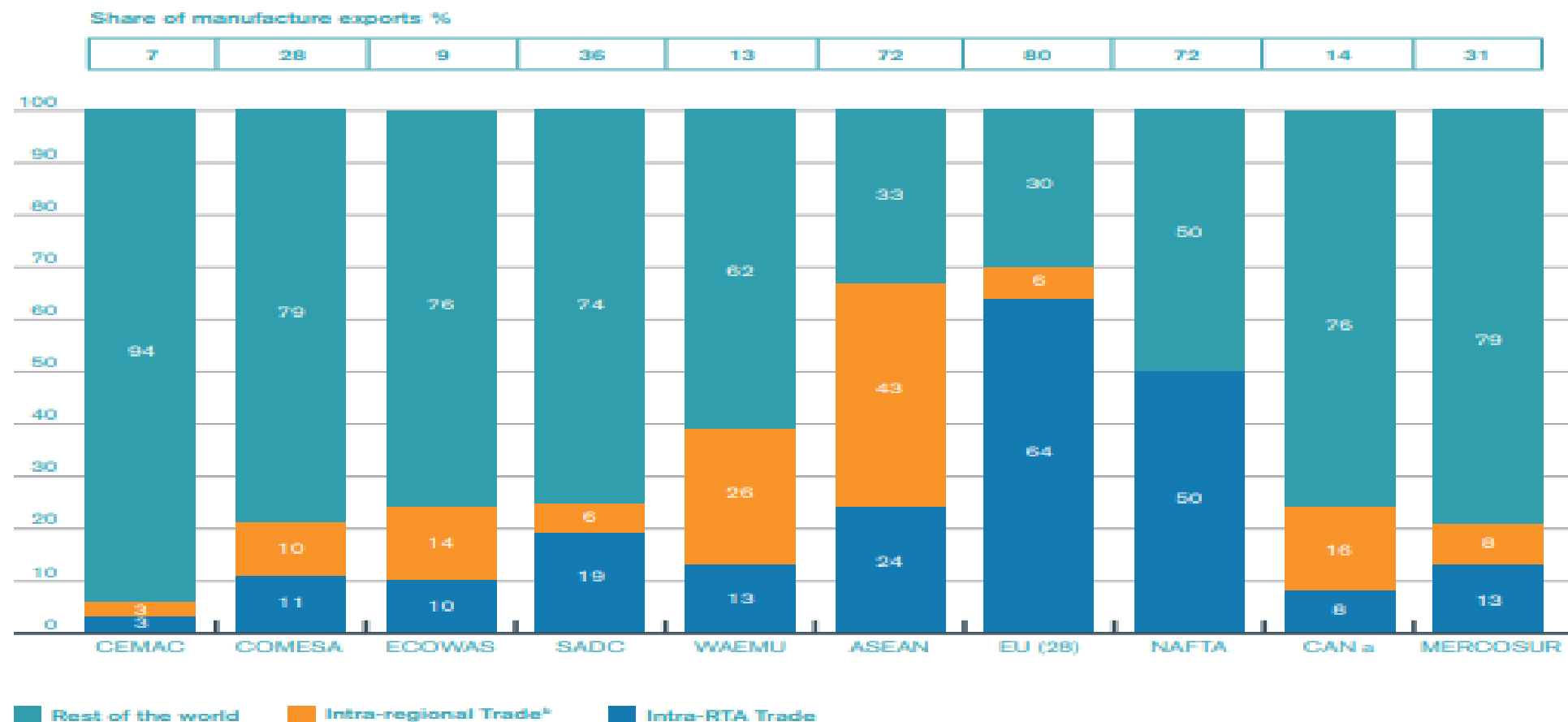
Source: UNESCAP-World Bank trade costs database; De Sousa (forthcoming).

StatLink  <http://dx.doi.org/10.1787/888933240950>

Bilaterals and regional trade agreements helps accelerate the lowering of trade cost.

## Exports of regional trade agreements (RTA), 2016

(Percentage share)



<sup>a</sup> Andean Community

<sup>b</sup> Intra-regional trade is calculated as total RTA exports to members of the geographical region (e.g. South America) who are not part of the RTA (e.g. MERCOSUR). The next update, to be released in October 2018, will include 2017 figures.

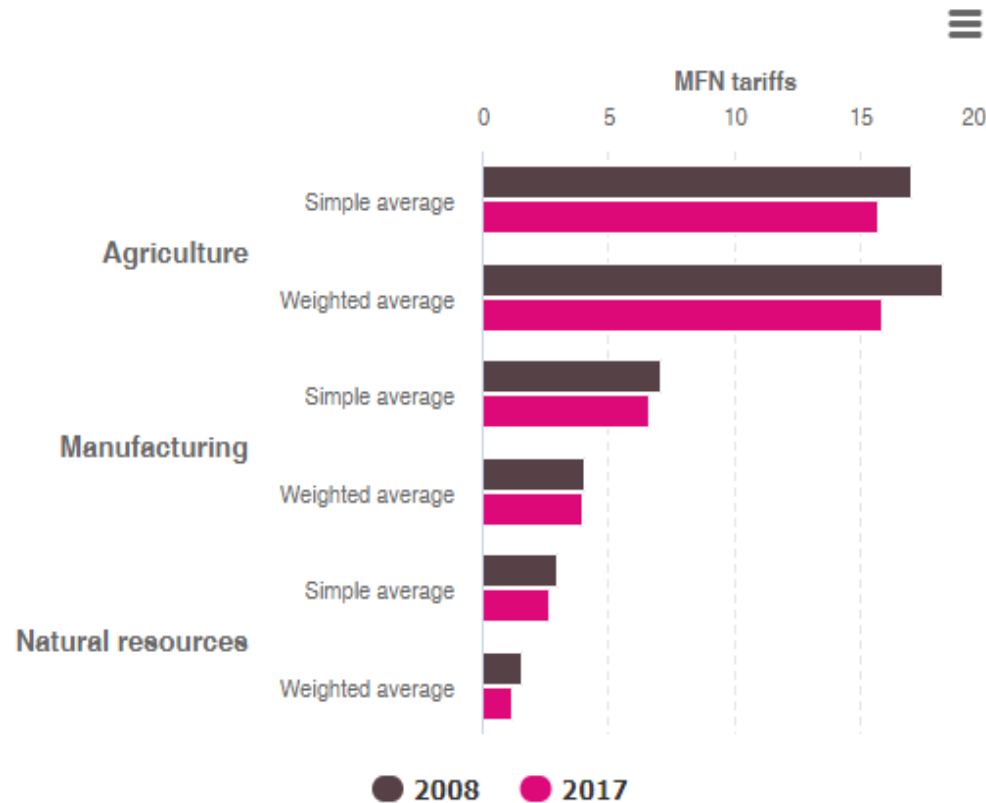
Note: For composition of regional trade agreements, see Chapter VII.

Source: WTO estimates.

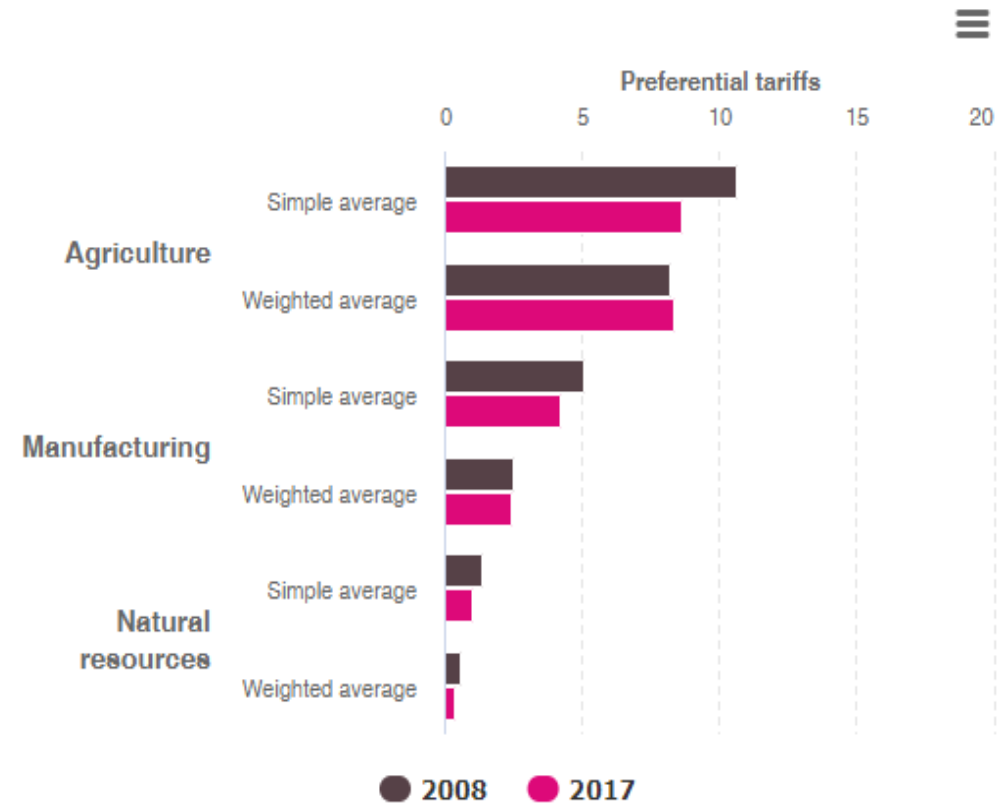


# MULTILATERAL VS. PREFERENTIAL LIBERALISATION

Multilateral liberalization

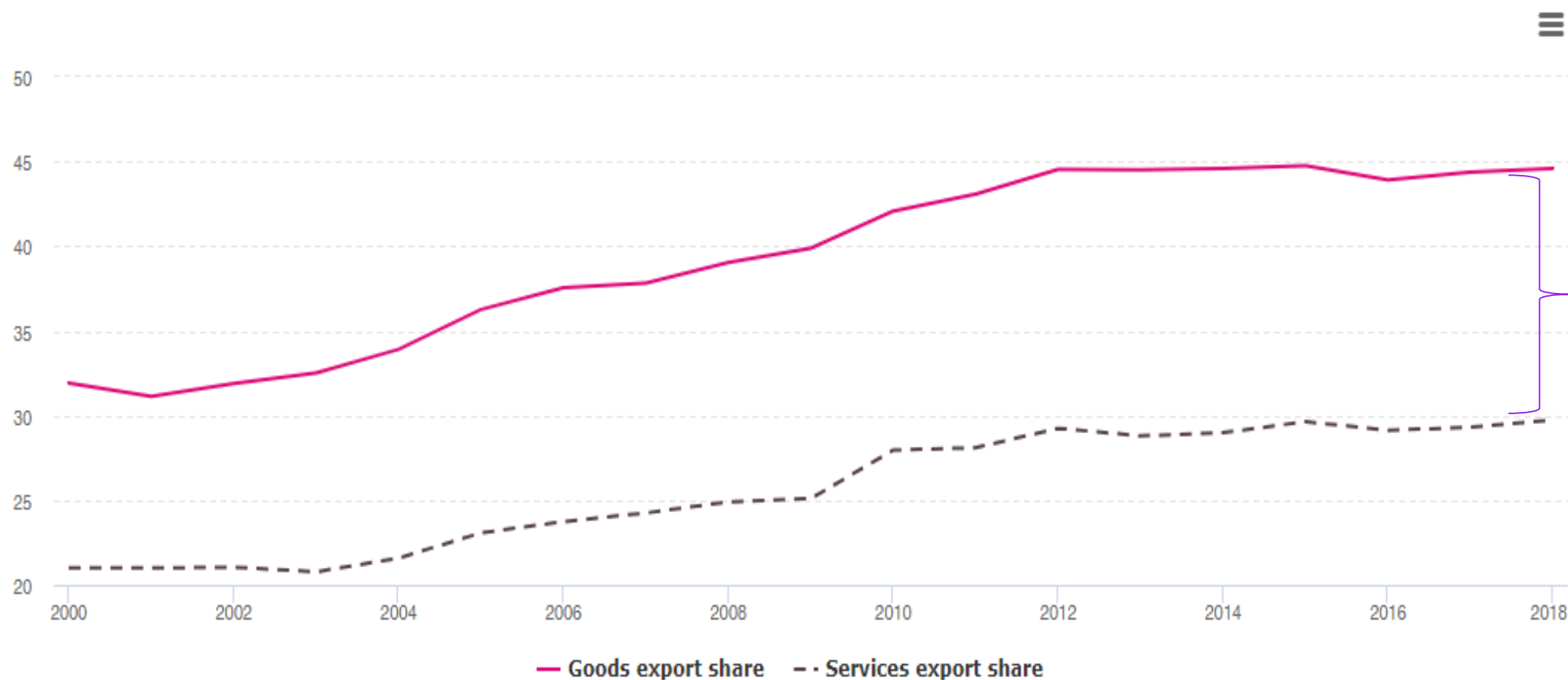


Preferential liberalization



Source: UNCTAD, ITC and WTO calculations based on [UNCTAD \(2019c\)](#), [ITC \(2019\)](#) and [WTO \(2019b\)](#).

# EXPORTS IN GOODS VS. SERVICES TREND (2000-2018)



Goods stabilizing while Services increasing gradually

**GAP** remains large

Source: UNCTAD (2019a).

# THE NEW CONTEXT

- 
- Distributed production system matches with trade patterns
  - Global flows of investment, capital, technology, skills and knowledge (negative interest)
  - Value Addition from Foreign Input and Upgrade Export/Local Input
  - Rising level of income, changes in consumption patterns, lifestyle-preferences (digital payment, ecommerce, etc.)
  - Advancement in trade logistics, regional integration through ICT, logistics system development, etc.



# CHANGING TRADE PARADIGMS

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- Export promotion
- Trade cost reduction (TFA)
- Trade surplus
- Geographic connectivity
- Currency manipulation
- Trade measures: Rules of Origin, CV
- Export and import promotion
- Ease of Doing Business
- Trade spillover
- Economic connectivity
- FDI for technology transfer\*
- Foreign Value Added Key in Export and Upgrade Local Value Chain

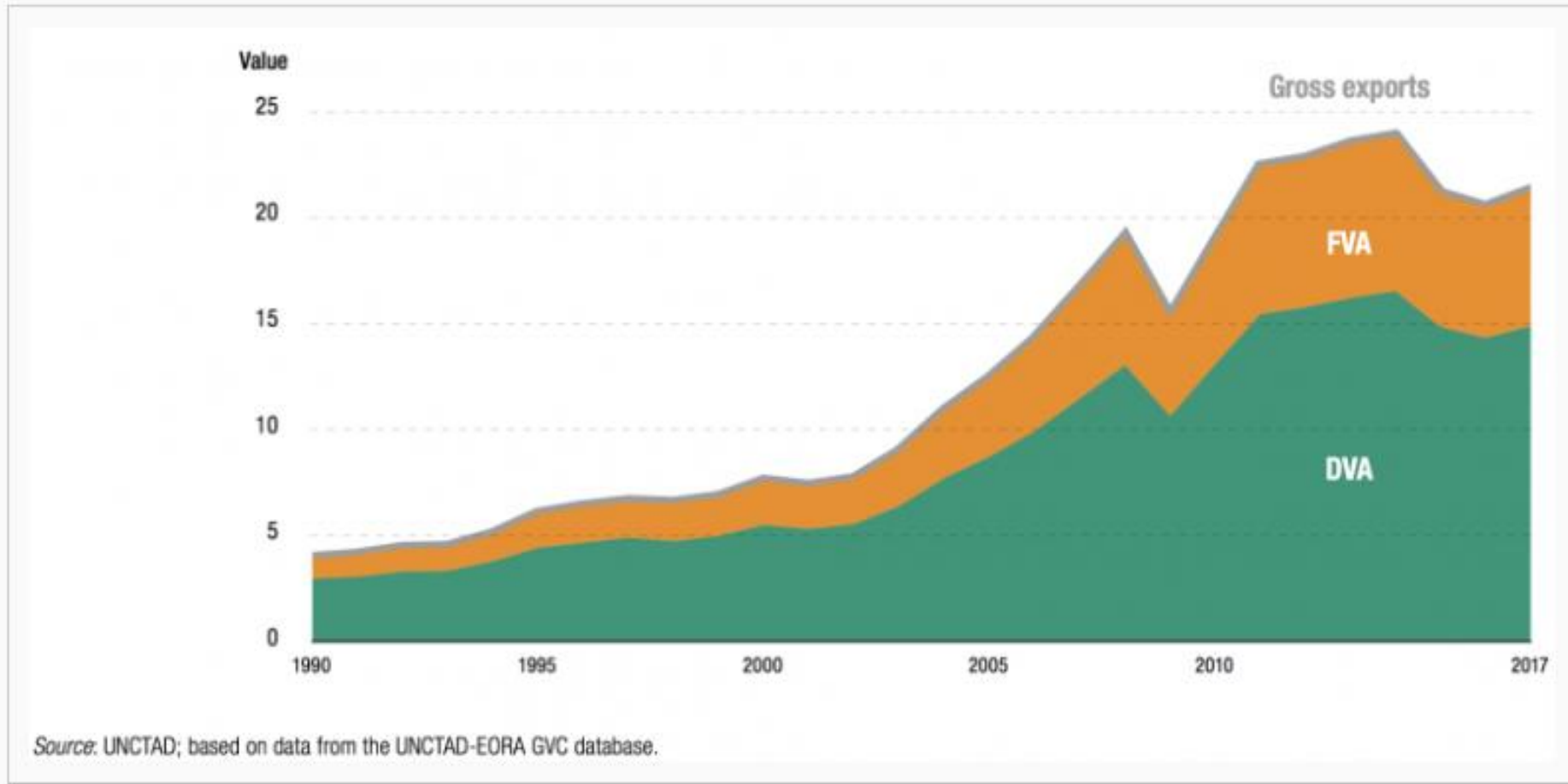
# TRADE ECONOMICS : BALANCED, DEFICIT AND SURPLUS

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# DOMESTIC VS. FOREIGN VALUE ADDED IN EXPORT

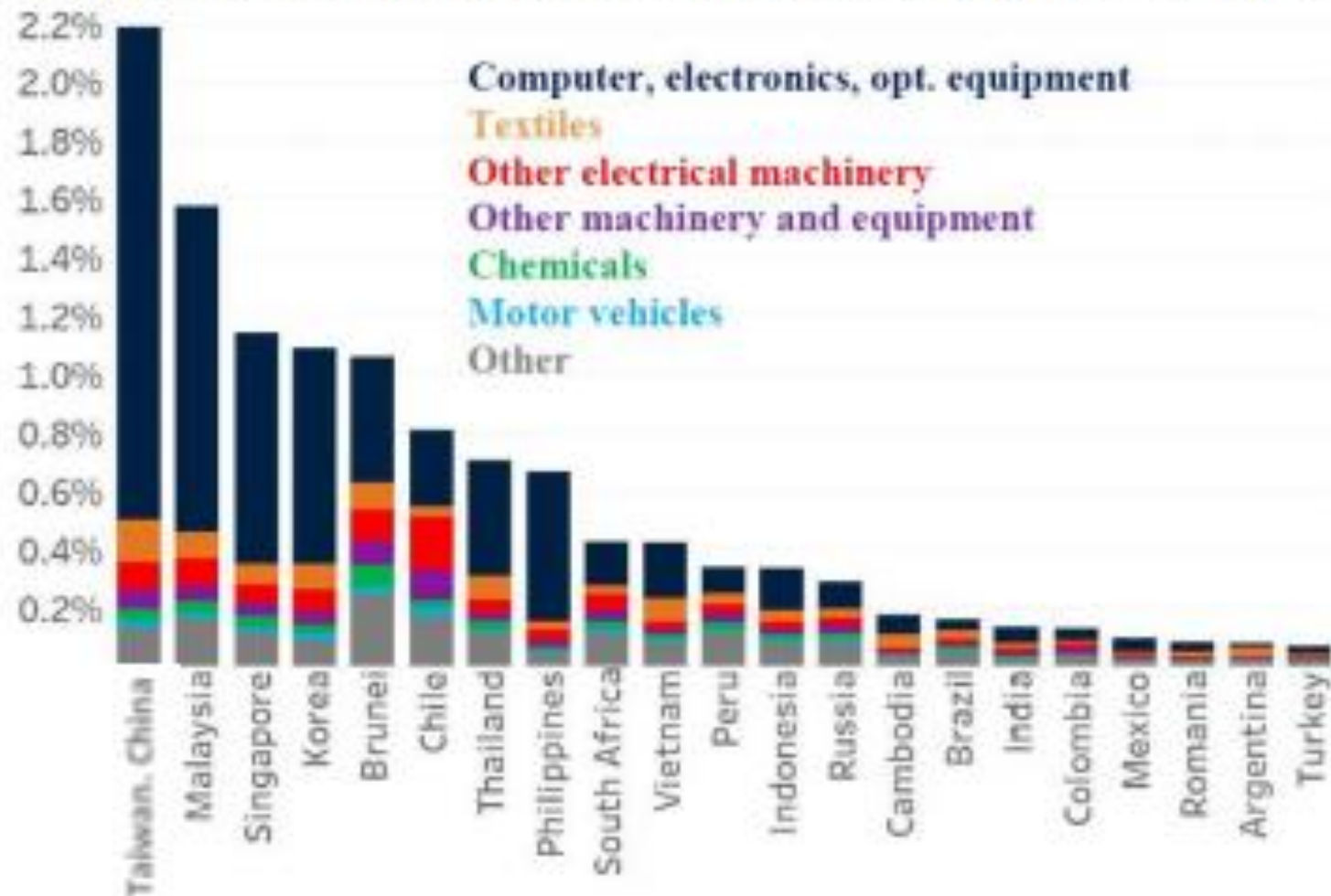
Gross global exports, broken down into domestic value added (DVA) and foreign value added (FVA)– *World Investment Report (2018)*





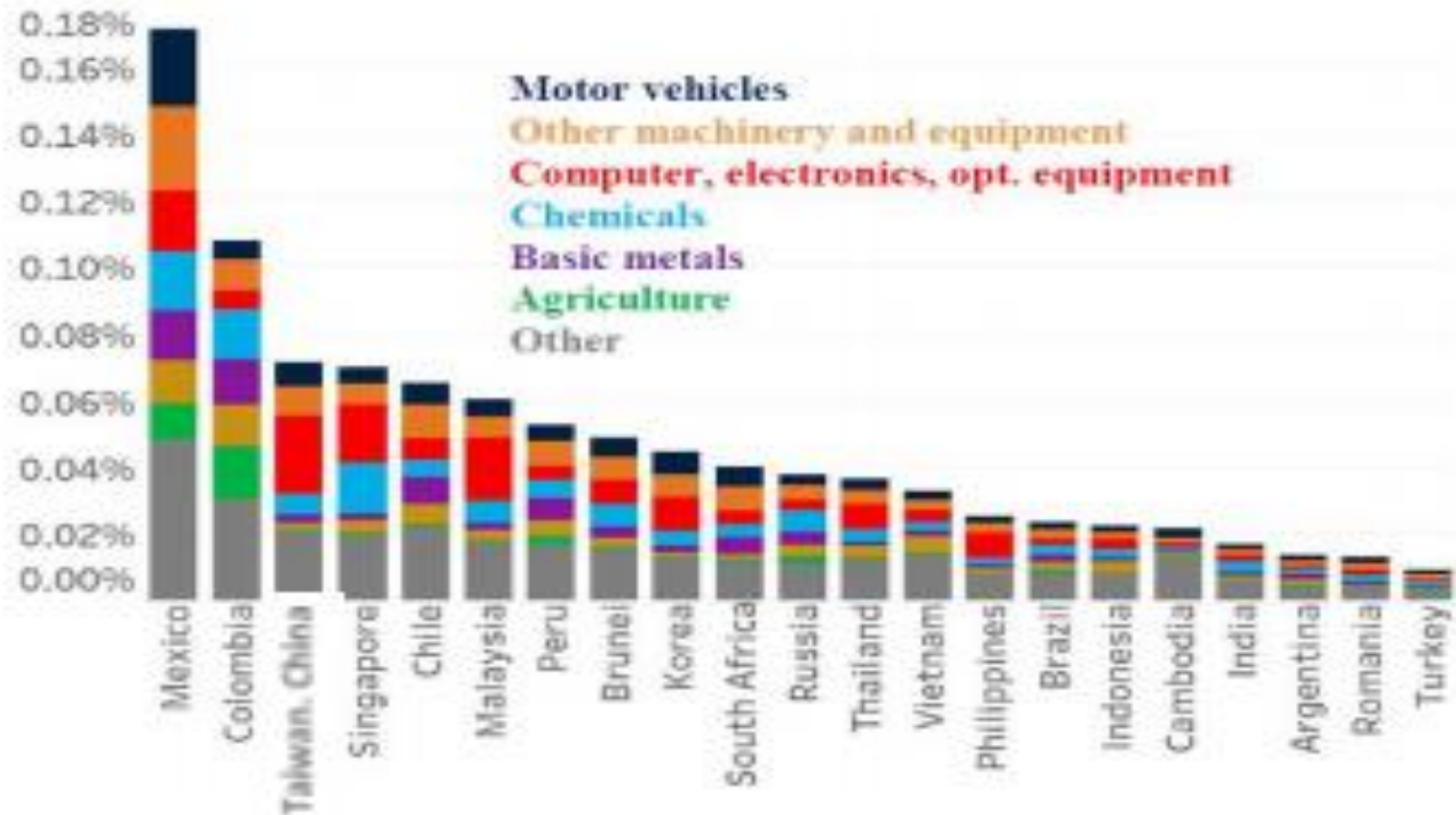
# RULES OF ORIGIN: CHINA TO US MARKETS

A. China exports to the USA, 2015, value added by country of origin

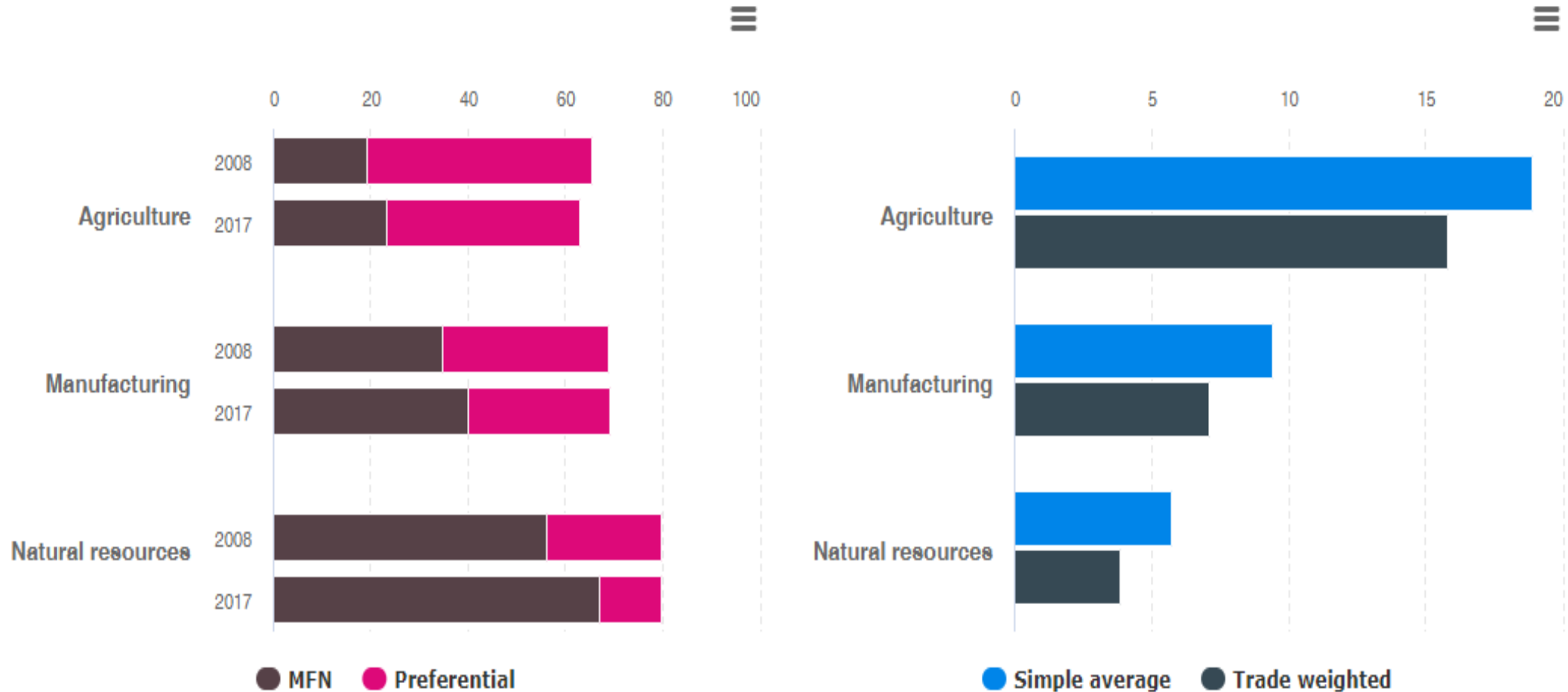


# RULES OF ORIGIN: US EXPORTS TO CHINA

B. US exports to China, 2015 Value added, by origin country



# DUTY FREE RATES AS % TARIFF

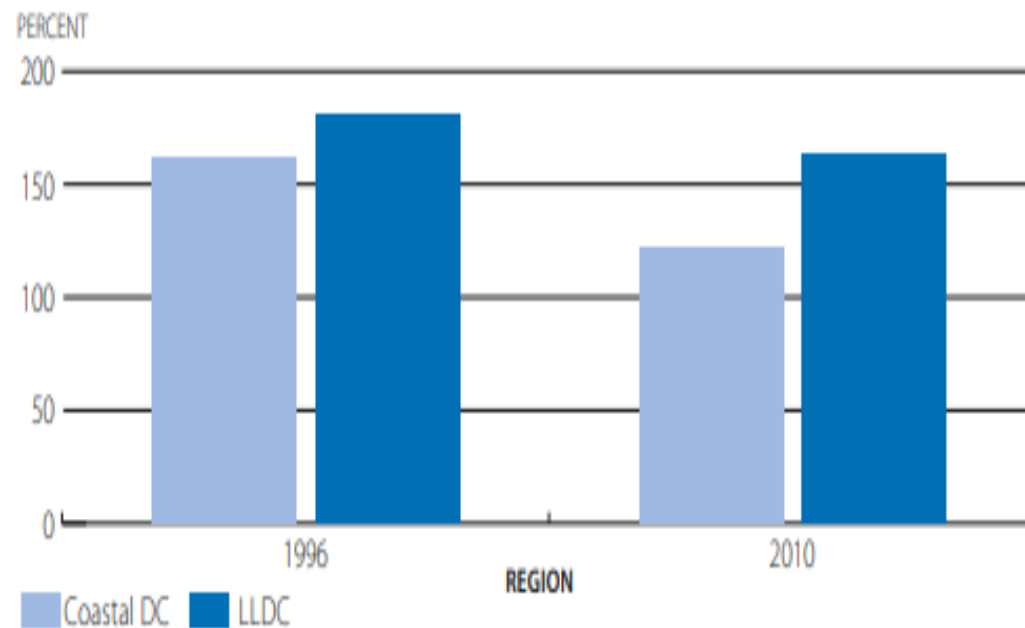


Source: UNCTAD Secretariat calculations based on COMTRADE data and UNCTAD TRAINS data.



# TRADE COST FOR LANDLOCKED COUNTRIES EXPERIENCED HIGHER COST BY 20-25%

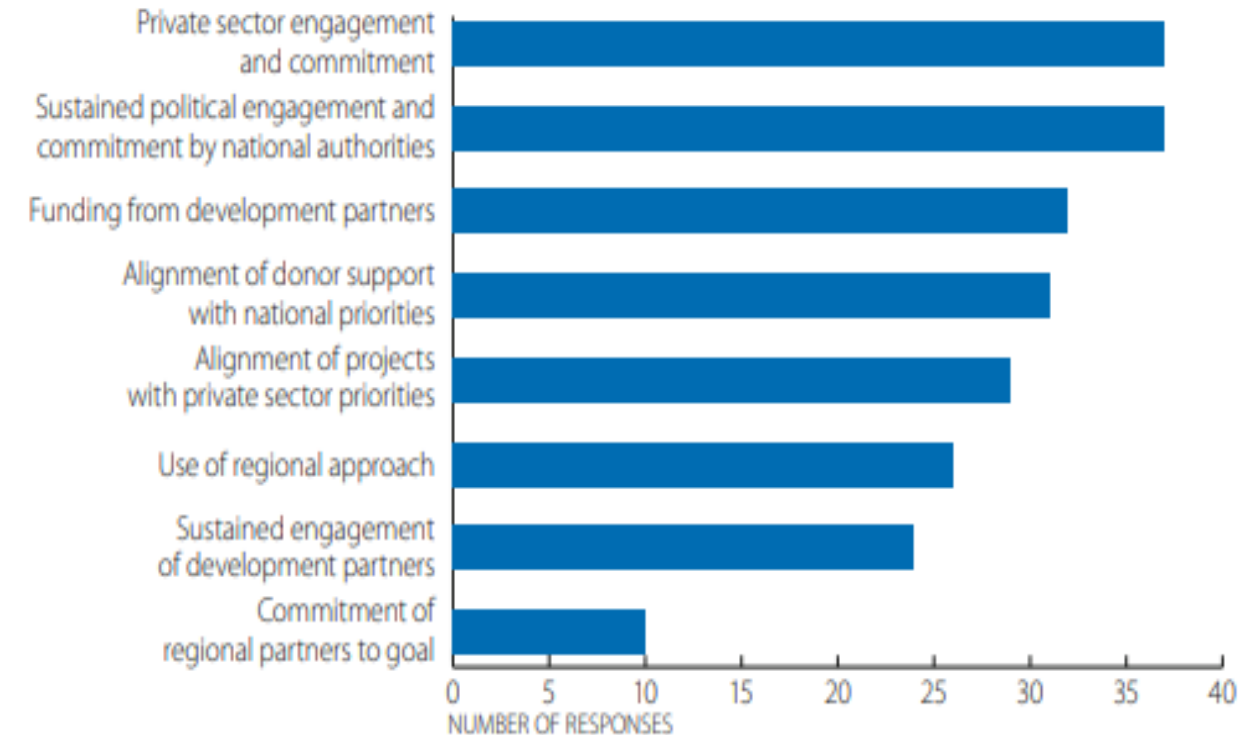
**Figure 2.16 Trade costs in manufacturing, 1996 and 2010, by landlocked versus other developing countries.**



Source: UNESCAP-World Bank 2014 Trade Costs Database.

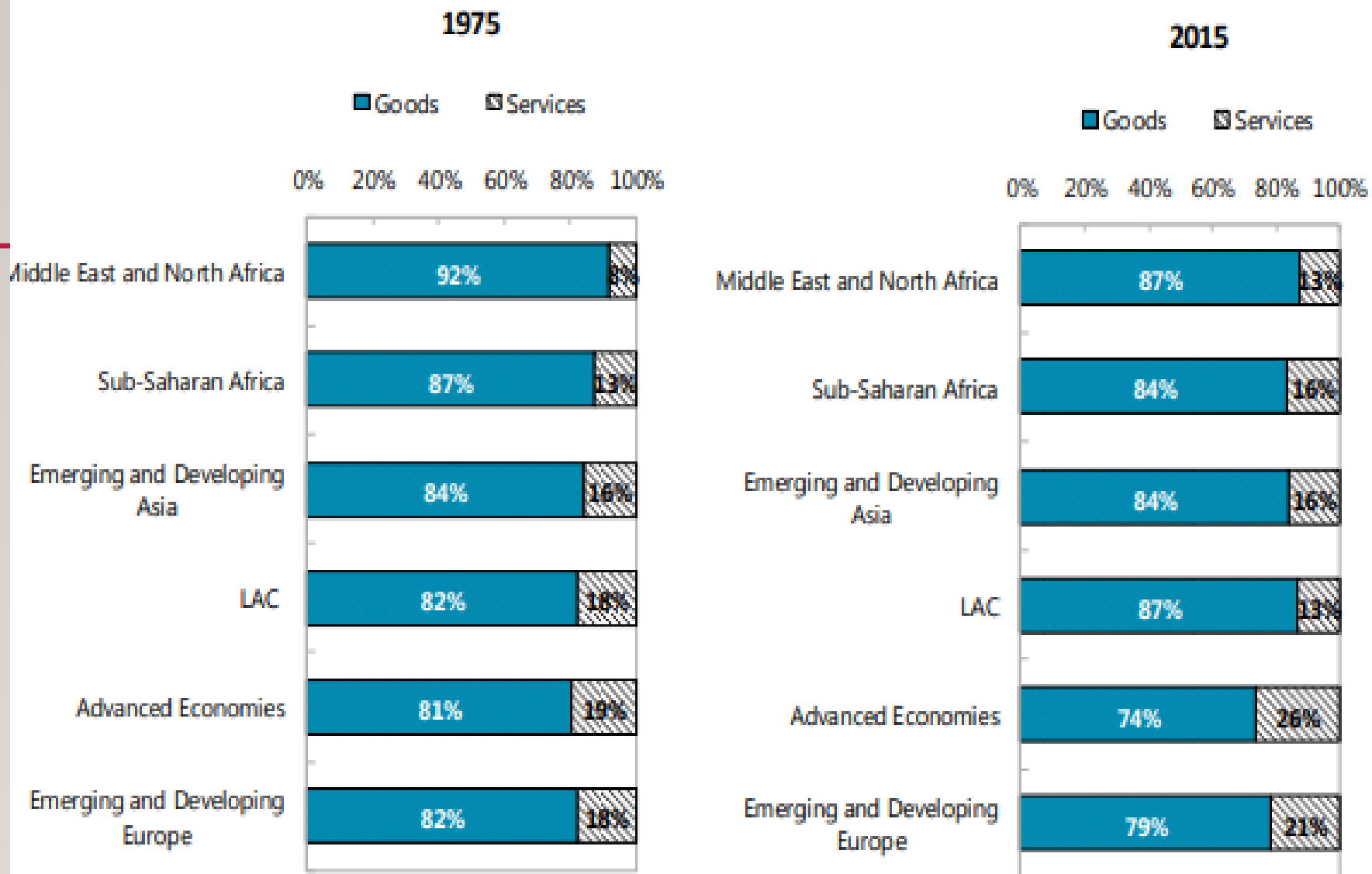
StatLink  <http://dx.doi.org/10.1787/888933240981>

**Figure 2.18 Key factors in achieving trade cost reductions in partner countries**

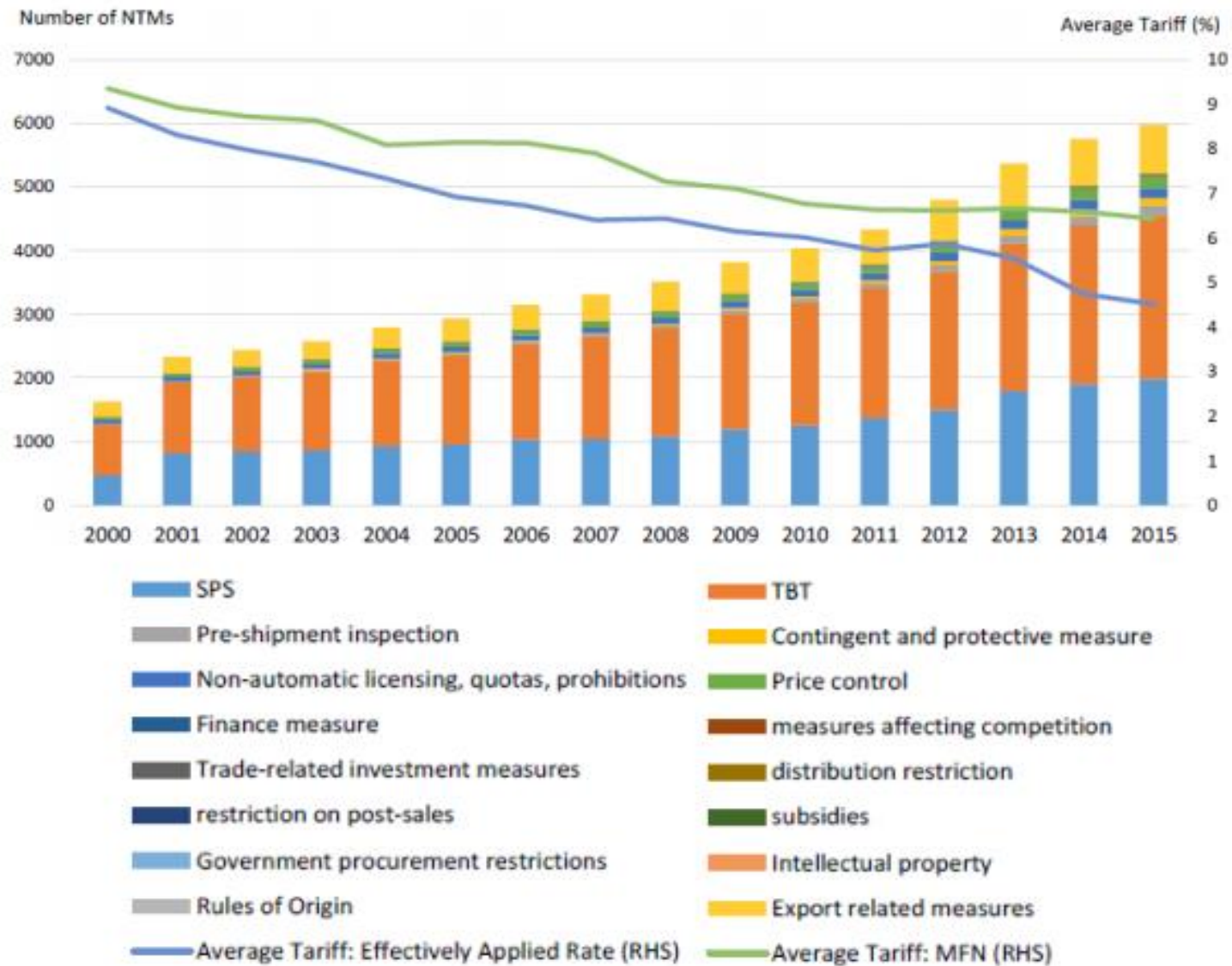


Source: OECD-WTO aid for trade monitoring exercise (2015).

StatLink  <http://dx.doi.org/10.1787/888933241006>



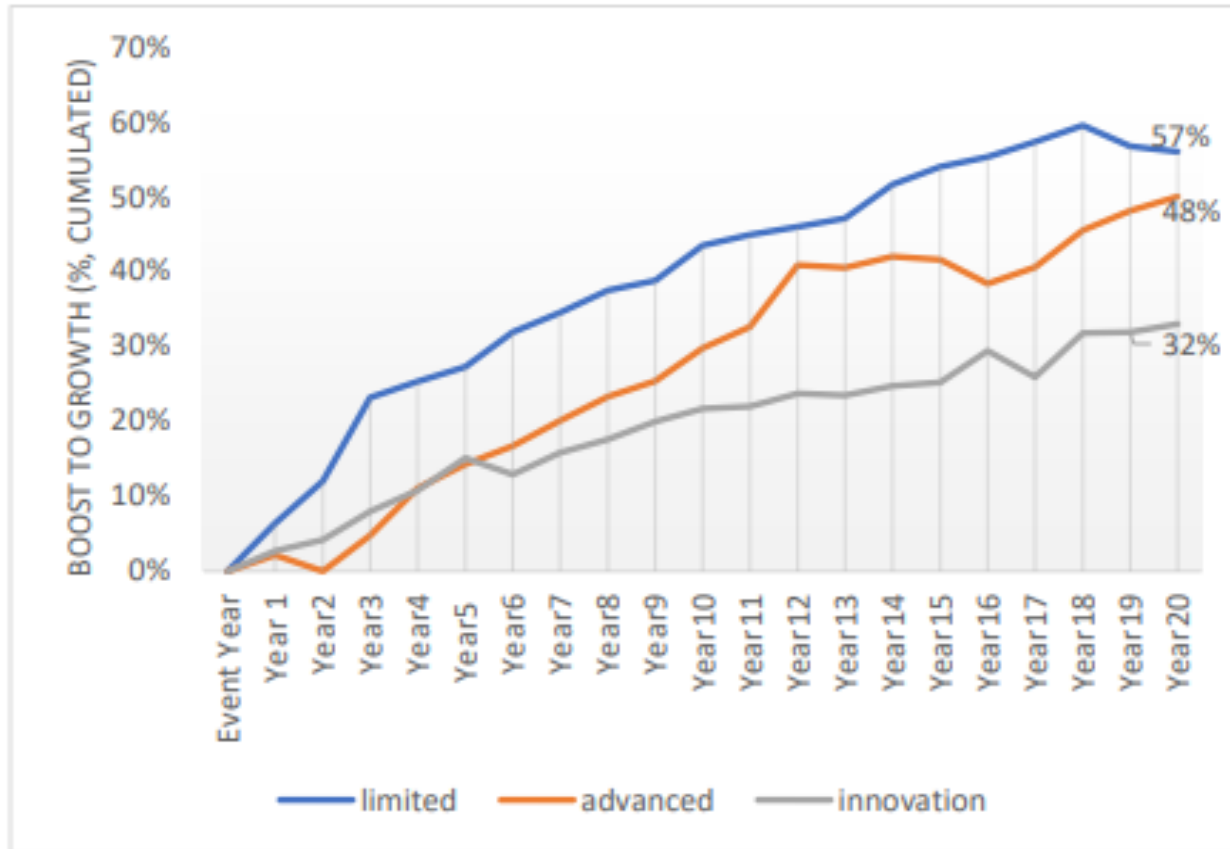
Trade in  
Services  
Remains  
Stagnant  
especially for  
LDCs and  
developing  
countries



Source: Ing, L. et al (2016), *Non-Tariff Measures in ASEAN: A Simple Proposal*, in Ing, L.Y., S. F. de Cordoba and O. Cadot (eds.), *Non-Tariff Measures in ASEAN*. ERIA Research Project Report 2015-1, Jakarta: ERIA, pp.13-36



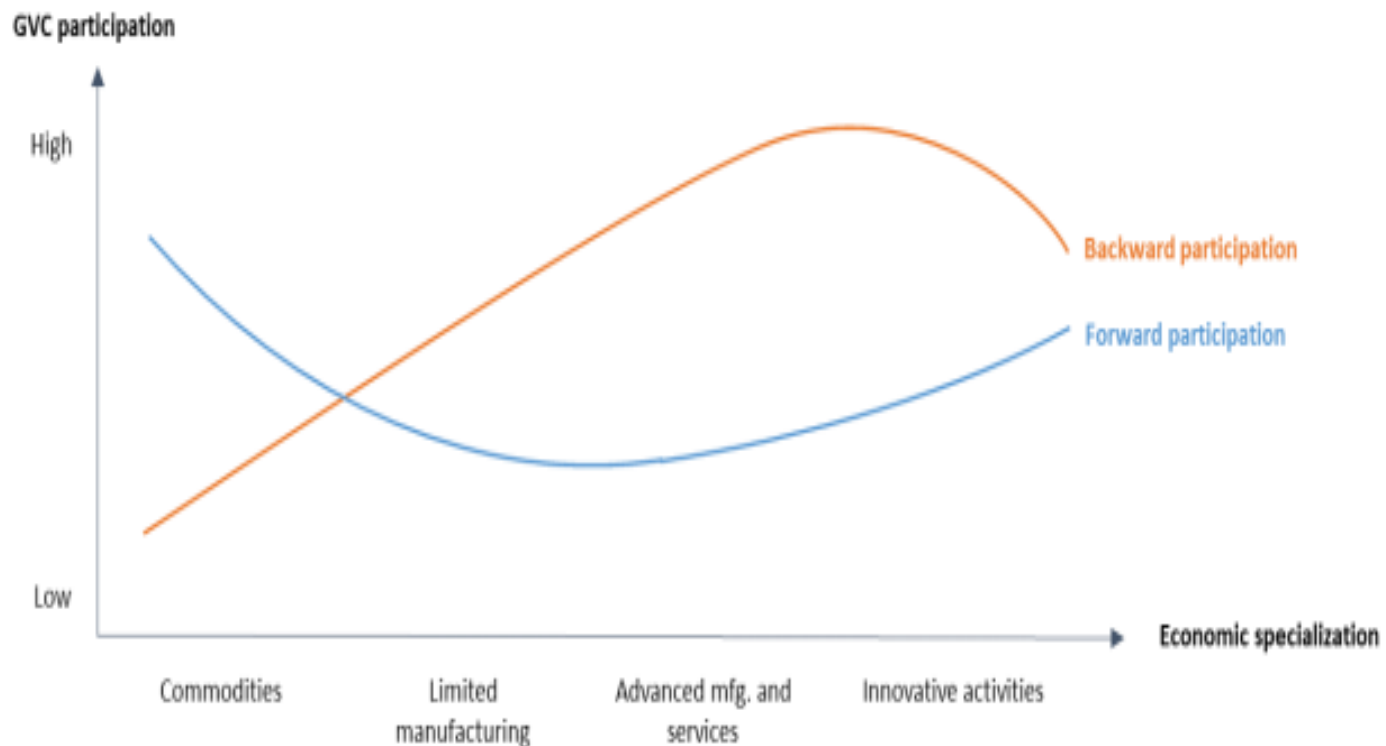
# WORLD DEVELOPMENT REPORT 2020 (IN PROGRESS)



Source: WDR Team using data from WDI and EORA.

Note: The event study quantifies cumulated boost to real income growth in the 20 years following a switch from a lower to a higher stage of GVC engagement. See box 3.3 for the methodology.

# GVC STRATEGY KEY!



Note: The approximate distribution is based on backward and forward GVC participation averages by taxonomy group for the period 2010-15. For the definition of taxonomy groups, see Box 1.2.

# GVC :TRADE SPILLOVER ANALYSIS

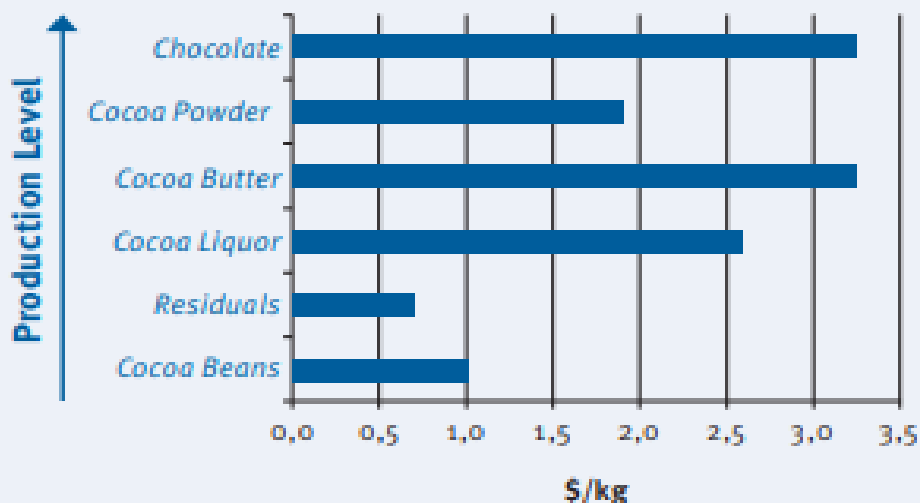


Figure 4.3: Export unit value of cocoa beans, intermediate products and chocolate, 2003

Source: Own elaboration based on UTEPI (2007)

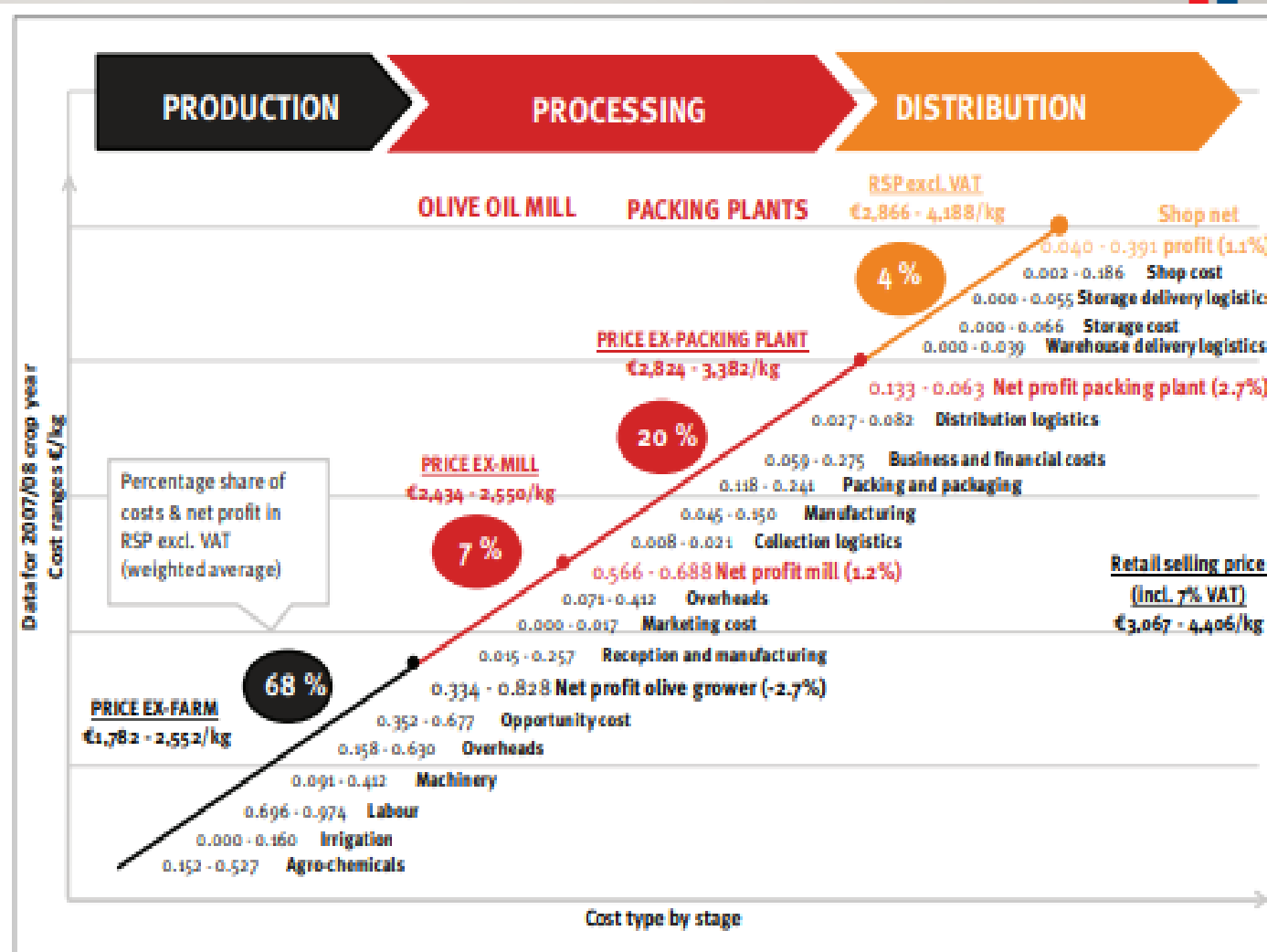
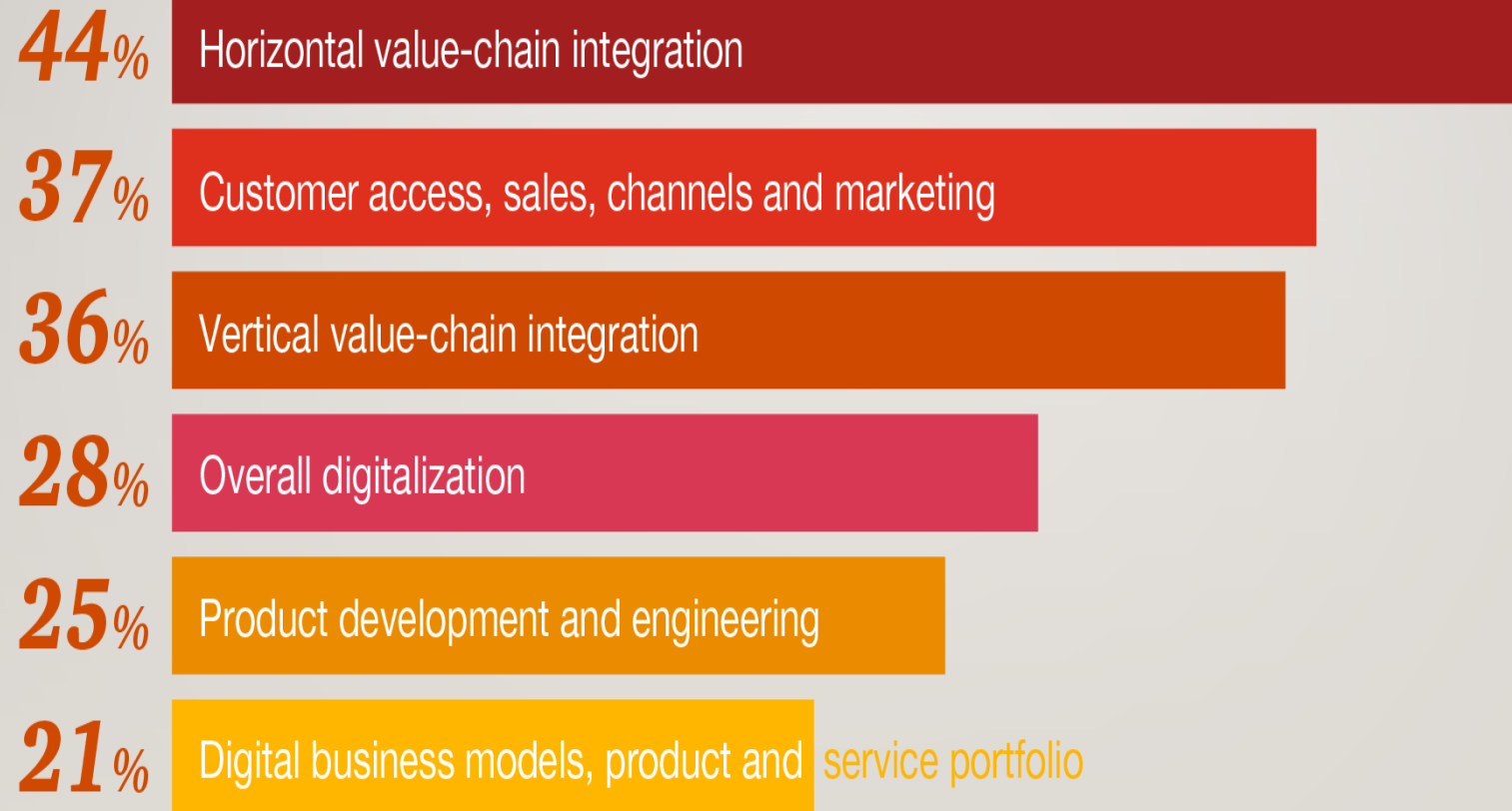


Figure 4.1: Prices, margins and value added in the Spanish extra virgin olive oil value chain

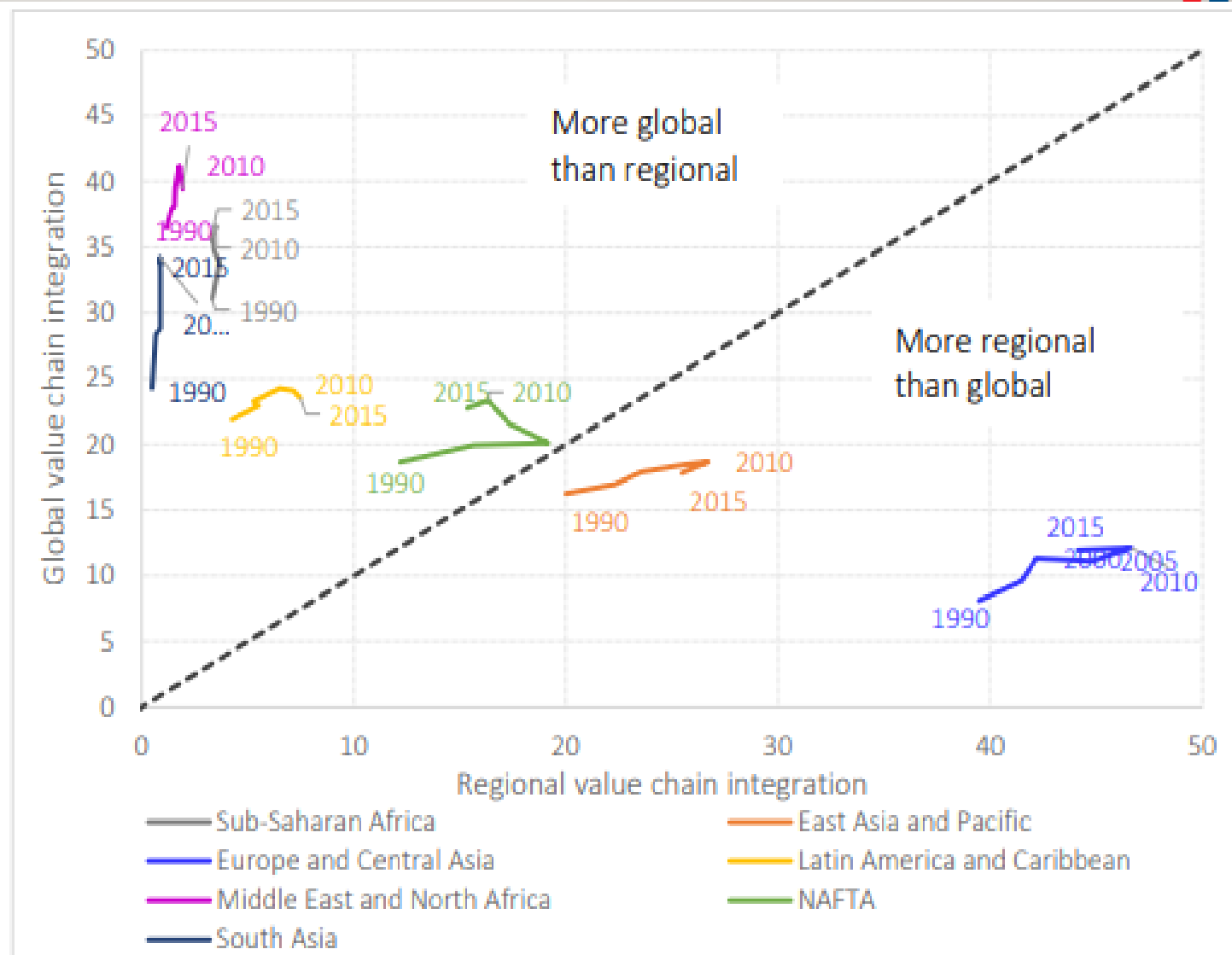
Source: Own elaboration based on MARM (2010)



## *Transportation companies reporting advanced levels of digitalization and integration\**



# GVC CLUSTER GLOBAL VS. REGIONAL

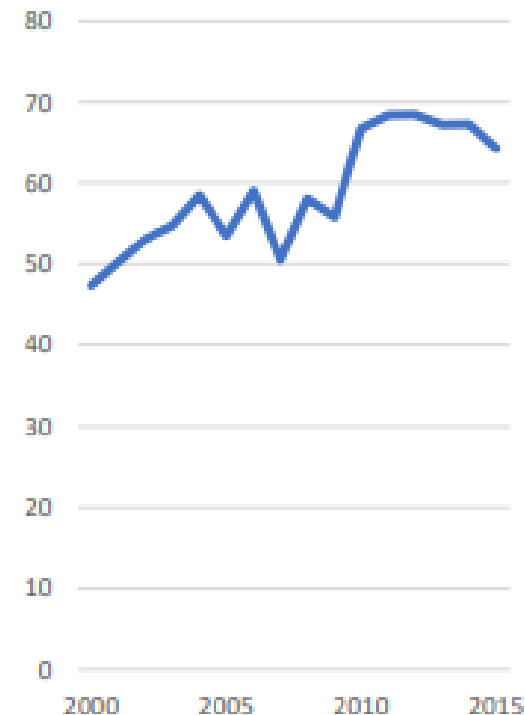


Source: WDR team calculation based on the EORA26 database and Borin and Mancini (2019).

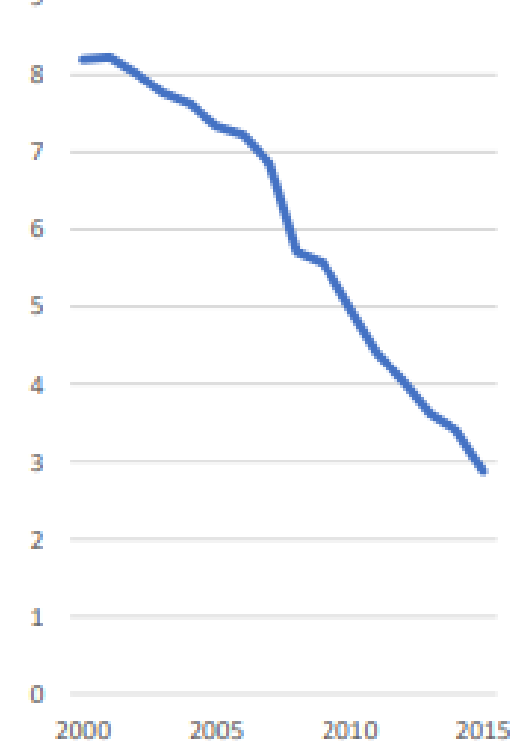
Note: EORA26 is used as it offers the largest country coverage. The GVC participation measure reflects the

# VIETNAM'S GVC JOURNEY

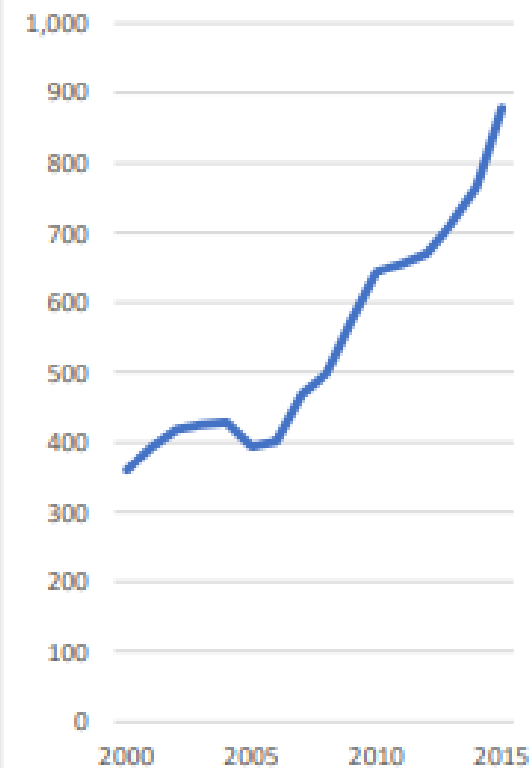
a Backward integration of electronics as a share of gross exports (%)



b Weighted import tariffs in electronics and machinery (%)



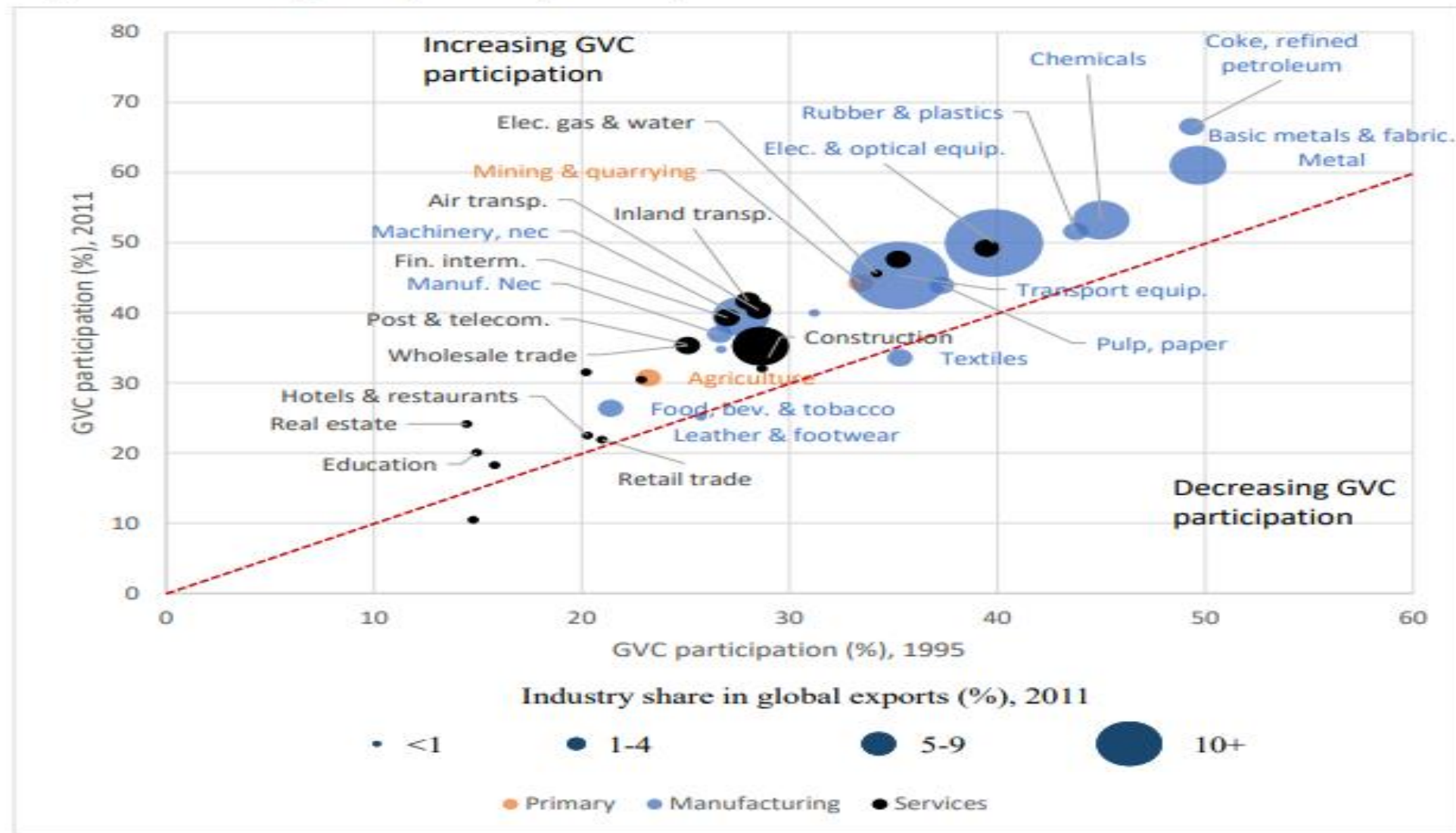
c FDI stock per person (in US\$100)



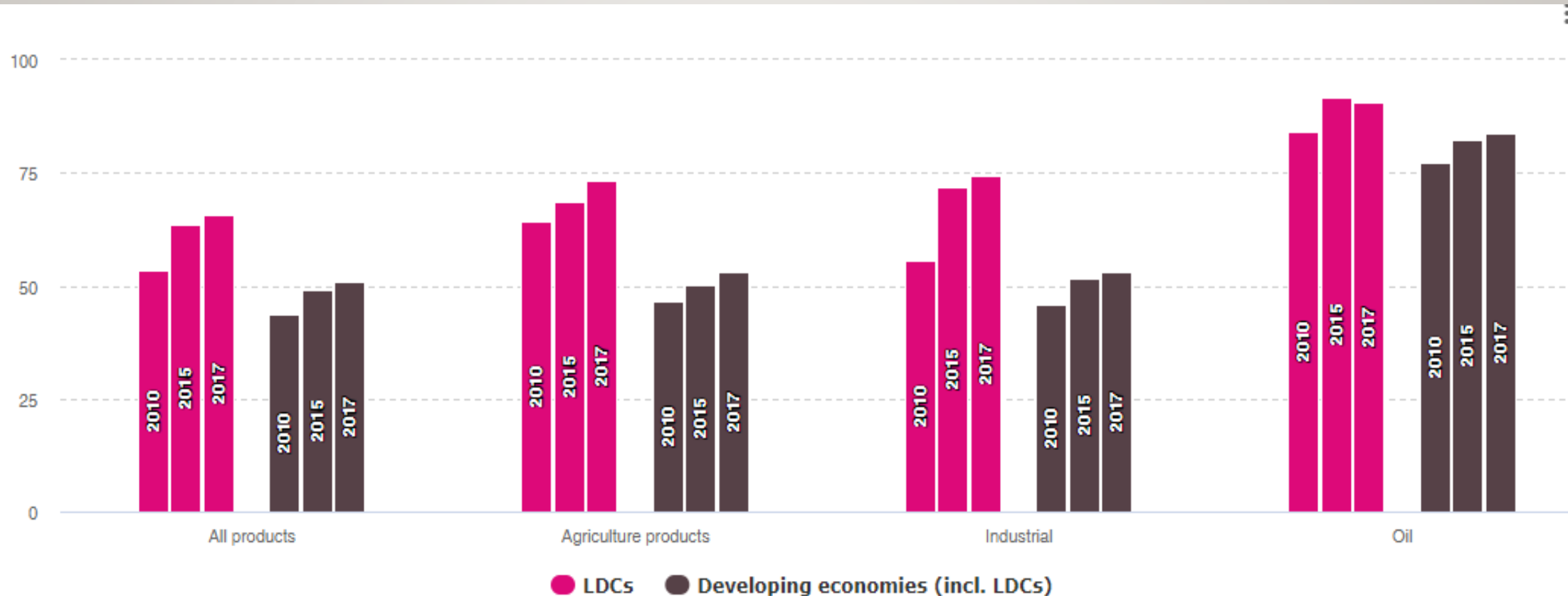
Source: EORA, WITS, WDI.



# GVC BY SECTOR PARTICIPATION

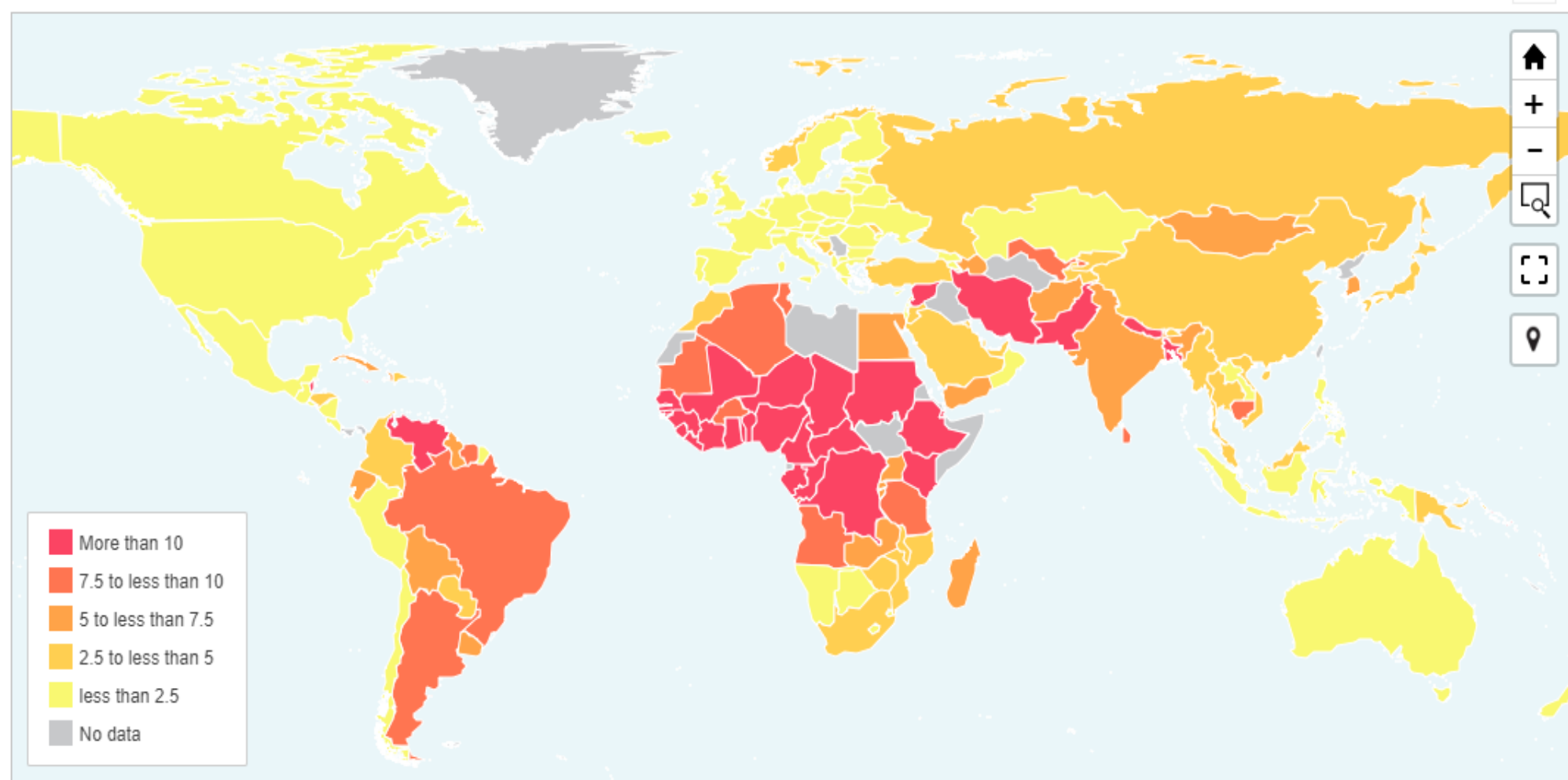


# TARIFF RATES: LDC COUNTRIES VS. DEVELOPING COUNTRIES REMAIN RELATIVELY HIGH/UNCHANGED



Source: UNCTAD, ITC and WTO calculations based on [UNCTAD \(2019c\)](#), [ITC \(2019\)](#) and [WTO \(2019b\)](#).

# GLOBAL AVG. TARIFF RATE BY COUNTRY



Source: UNCTAD, ITC and WTO calculations based on [UNCTAD \(2019c\)](#), [ITC \(2019\)](#) and [WTO \(2019b\)](#).



# NEW RULES ON TRADE FACILITATION FOR GVC

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- Why?
- Growing protectionism
- Policy incoherence between trade and industrial capacity building
- NTBs \*
- Complex investment-trade relationships (Trade Surplus vs. Trade Deficit)
- Non conventional drivers of trade in GVC ( technology platform, Big Data, etc.)

# SUSTAINABLE FDI AND INCLUSIVE TRADE - INDUSTRIALISATION

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- What are they?

# Q&A

Write to : [duangthip@itd.or.th](mailto:duangthip@itd.or.th)

Director  
International Cooperation  
ITD

