

# Value Chain Dynamics and Intra- and Inter-Regional Integration in Latin America and Asia

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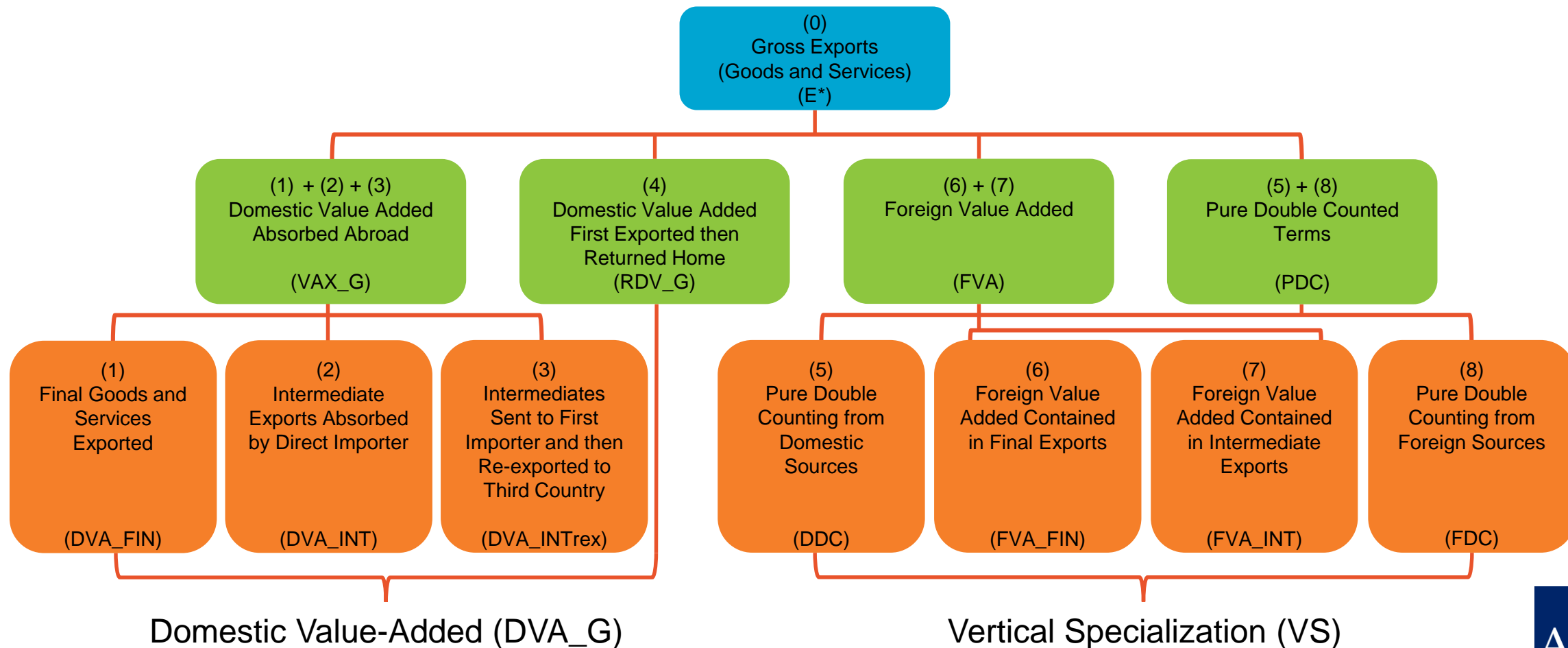
# Value chain linkages between Asia and Latin America: Case of Brazil

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*This section looks at the results from the decomposition of trade between Brazil and economies in East Asia and the Pacific. Results indicate to a need to diversify and expand integration across other markets and products.*

# Let's start by decomposing gross trade into value-added components.

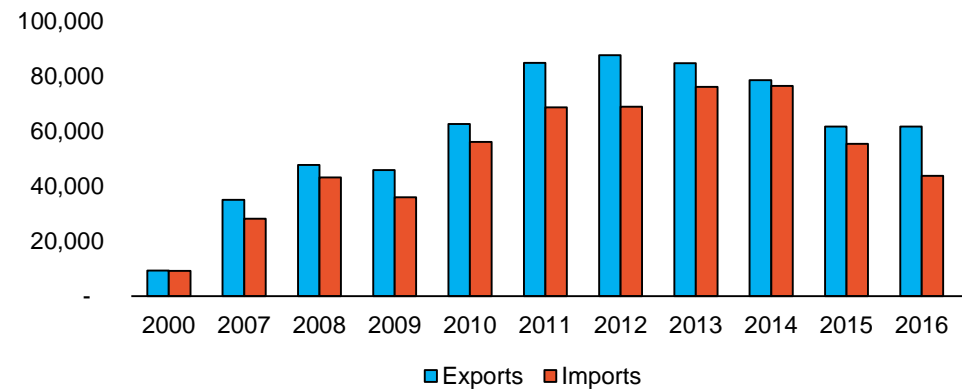
Based on the WWZ (2017) decomposition framework to measure international production sharing at the bilateral level



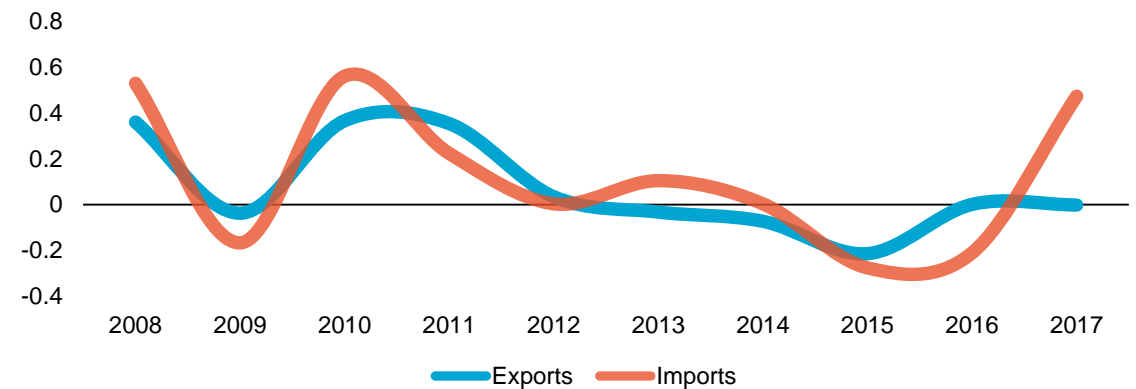
Note: E\* can be at country-sector, country aggregate, bilateral-sector, or bilateral aggregate. Both VAX\_G and RDV\_G are based on backward industrial linkages.

# Brazil's trade balance with East Asia & the Pacific using gross terms...

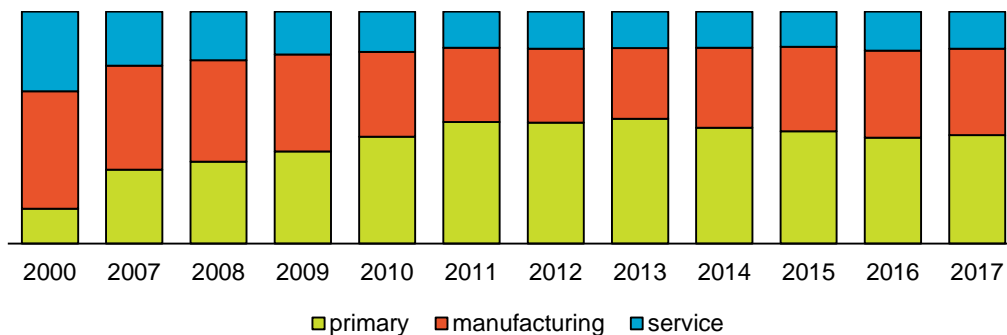
Brazil's Trade Balance with East Asia and the Pacific (US\$ million)



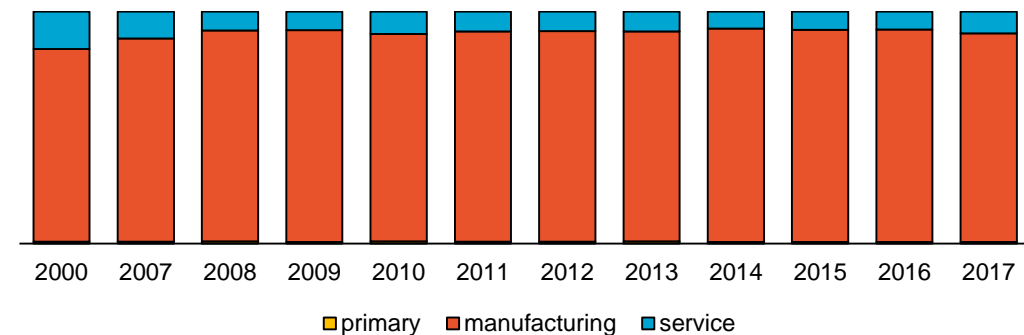
Year-on-year growth rates of Brazil's export to and import from East Asia & Pacific



Brazil's Export Basket to East Asia & Pacific

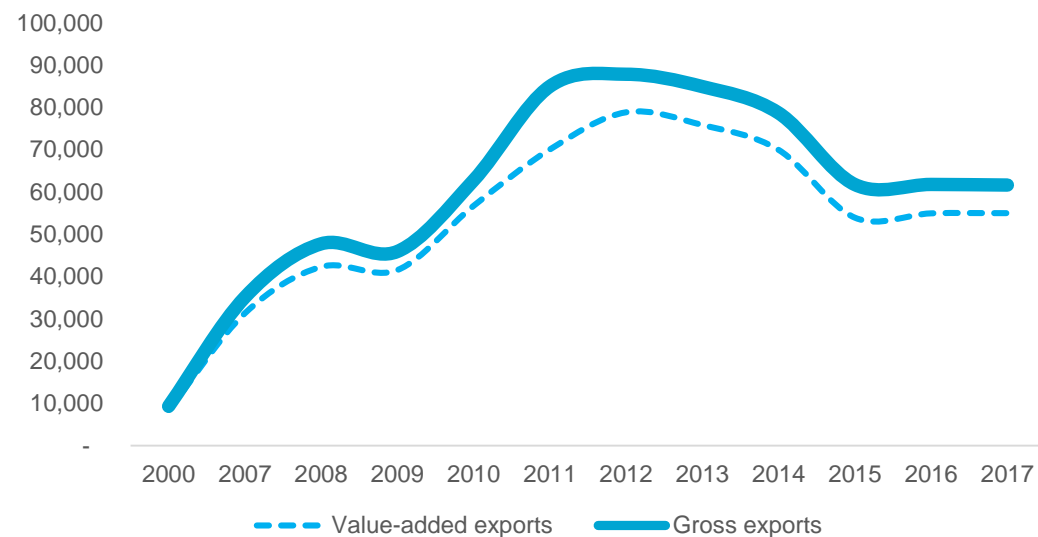


Brazil's Import Basket from East Asia & Pacific

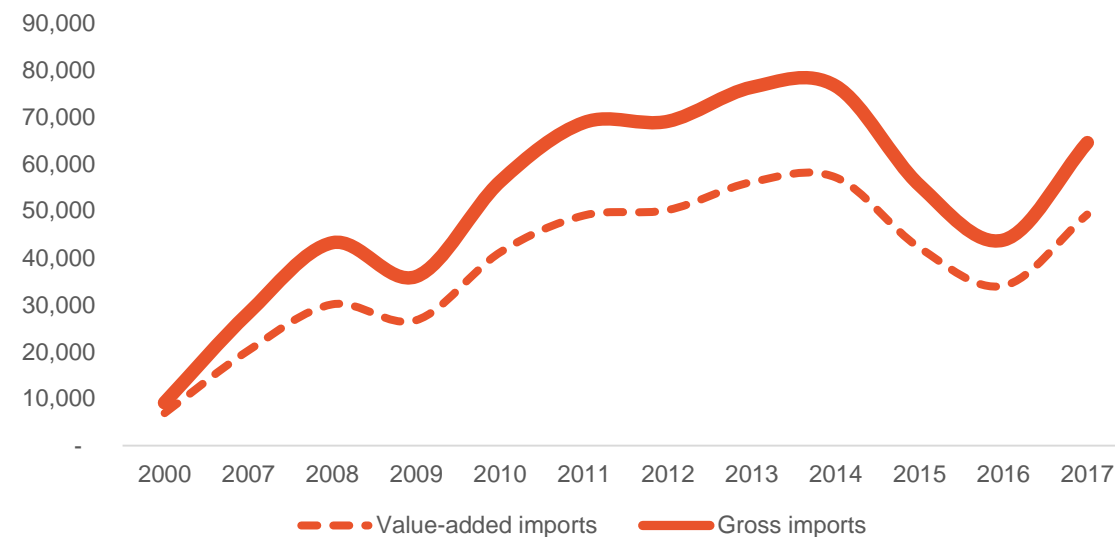


# ...slightly portrays a different picture when viewed from a value-added perspective...

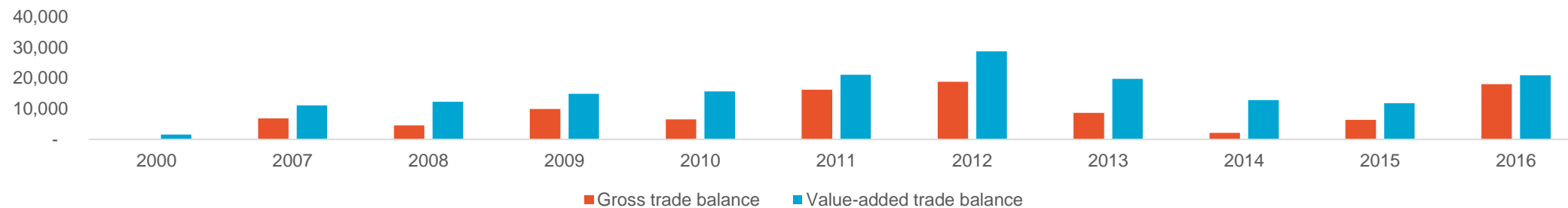
Gross vs. value added exports of Brazil to East Asia and the Pacific



Gross vs. value-added imports of Brazil from East Asia and the Pacific

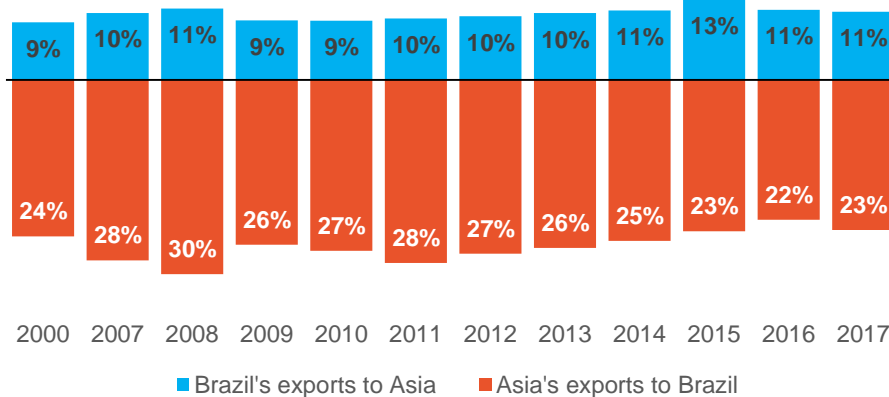


Trade balance between Brazil and East Asia & the Pacific

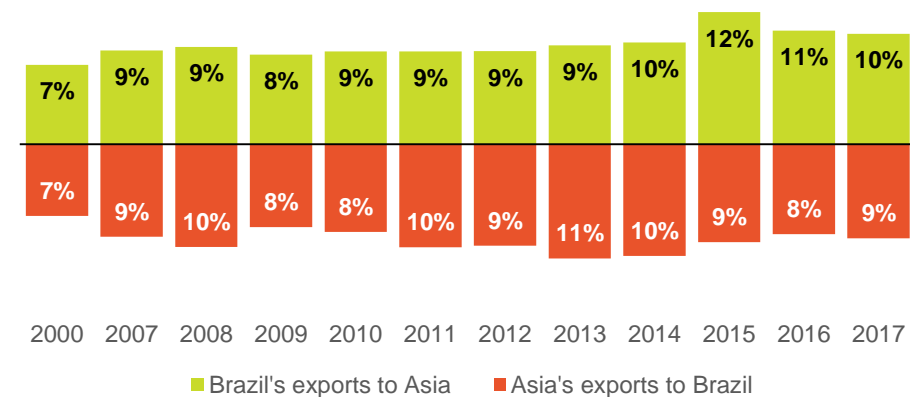


# ...which is increasingly important given the country's changing vertical specialization patterns...

VS share to total exports, 2000, 2007-2017



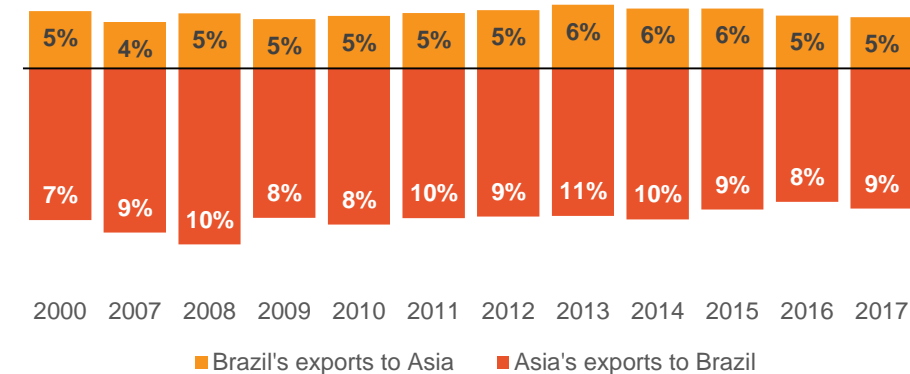
VS share to primary exports, 2000, 2007-2017



VS share to manufacturing exports, 2000, 2007-2017

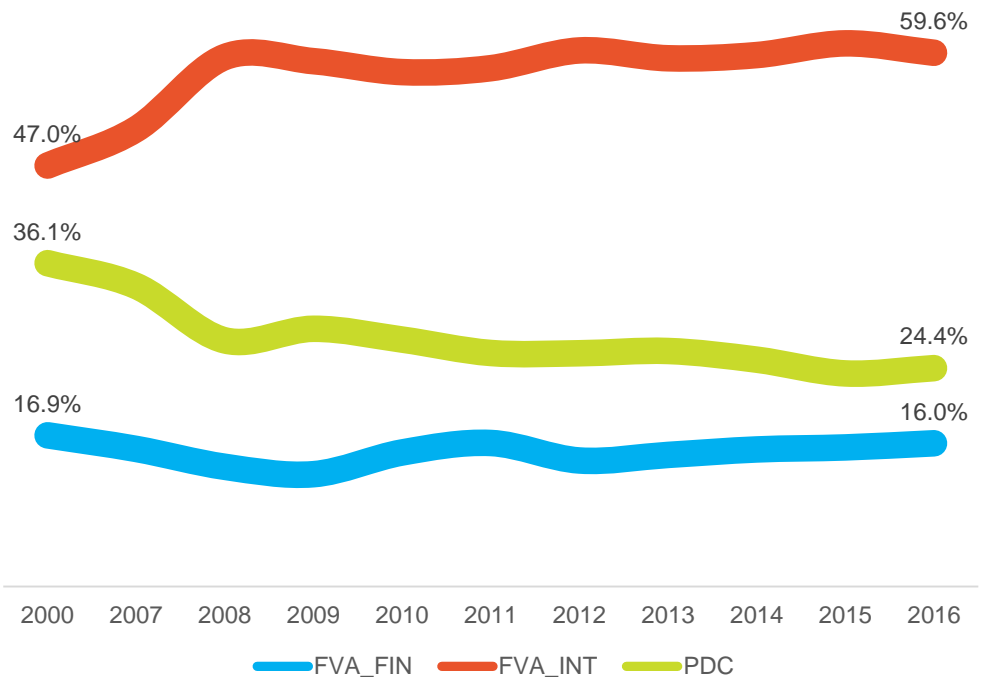


VS share to services exports, 2000, 2007-2017

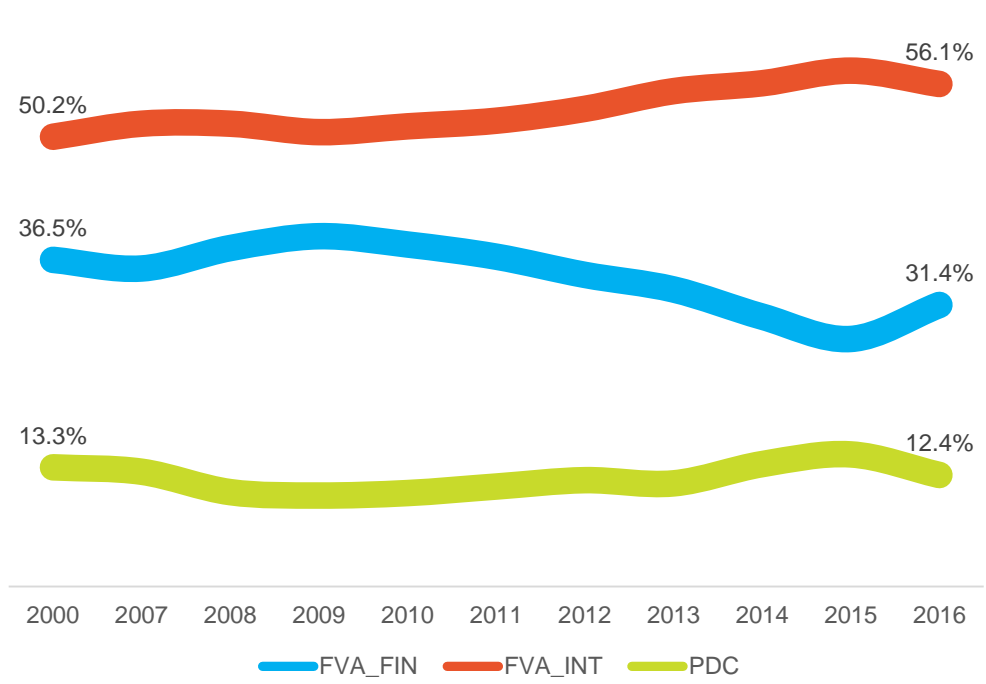


# ...where access to foreign inputs becomes a central feature in its international production sharing...

Foreign value added in Brazil's exports to EA&P, % to total VS

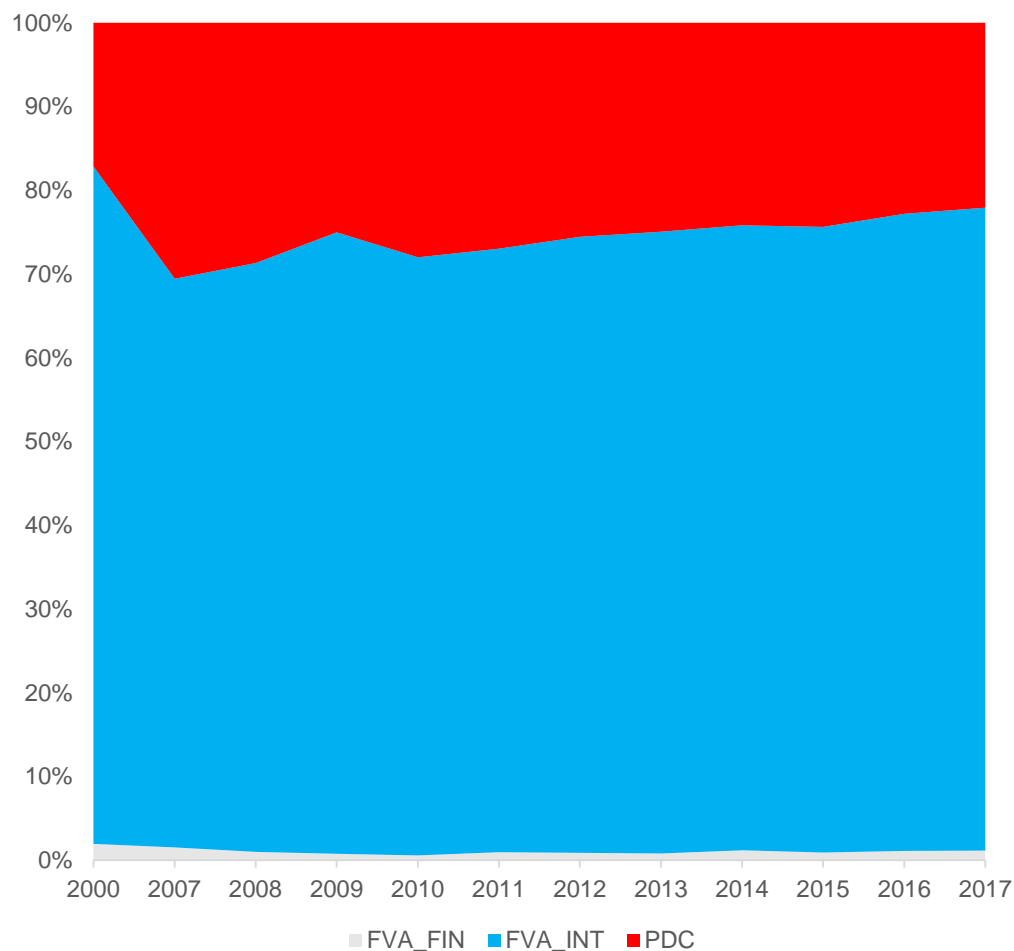


Foreign value added in EAP's exports to Brazil, % to total VS

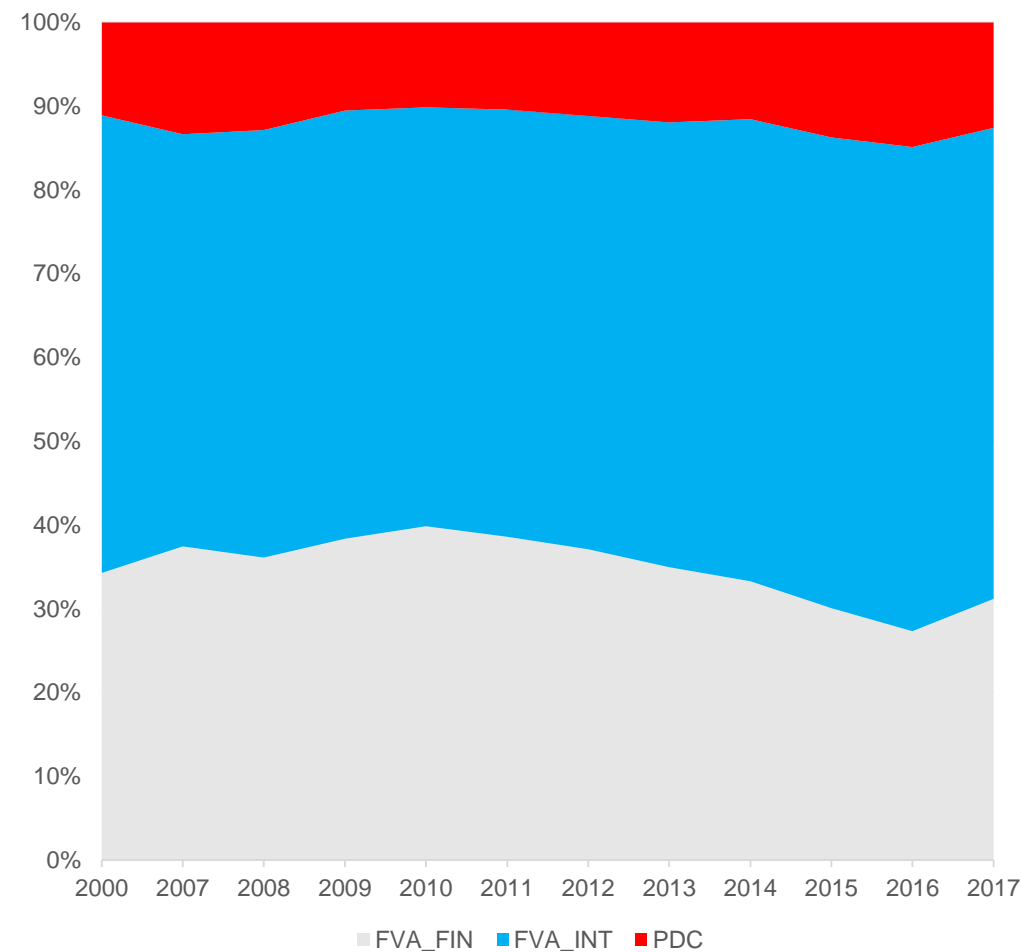


## ...especially when we look at its primary exports to Asia...

Foreign value added in Brazil's primary exports to EA&P, % to total VS



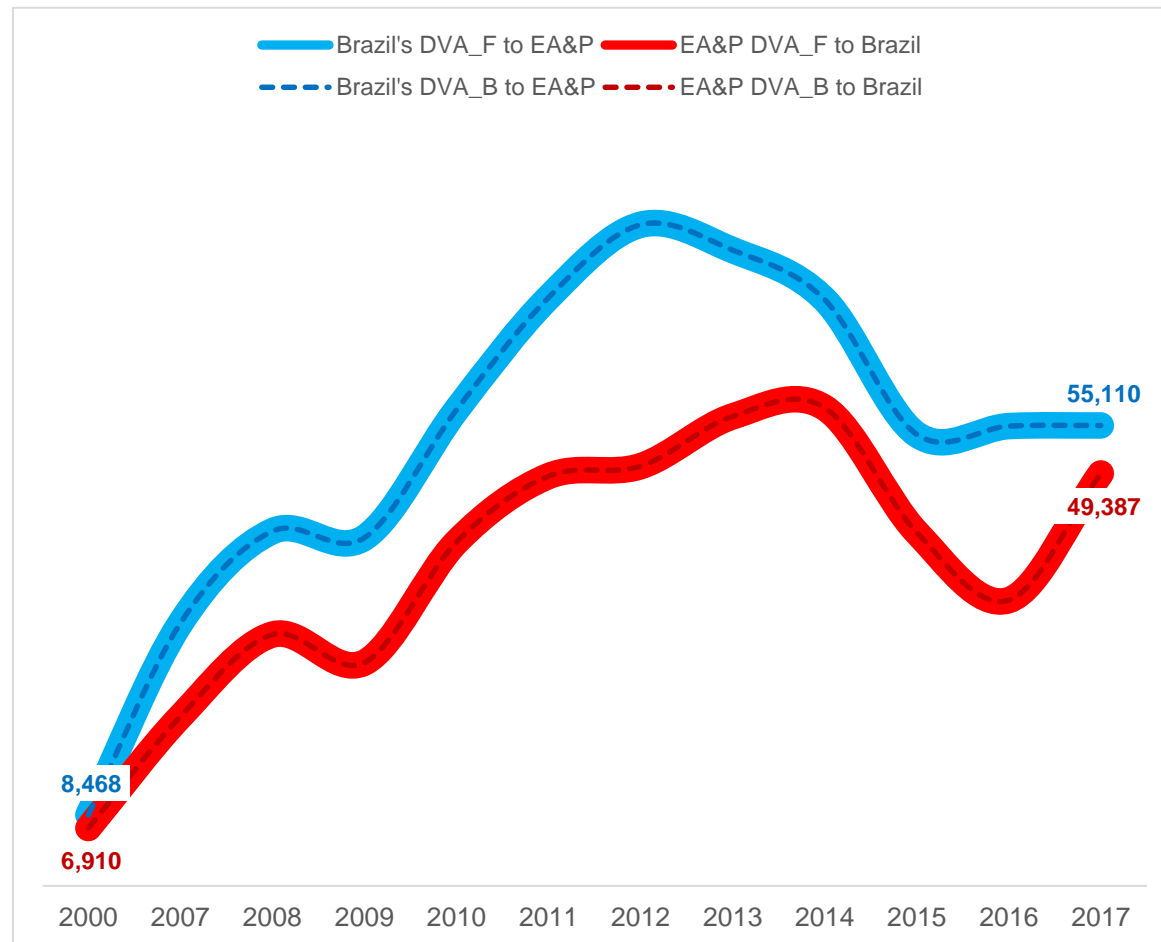
Foreign value added in EA&P's manufactured exports to Brazil, % to total VS



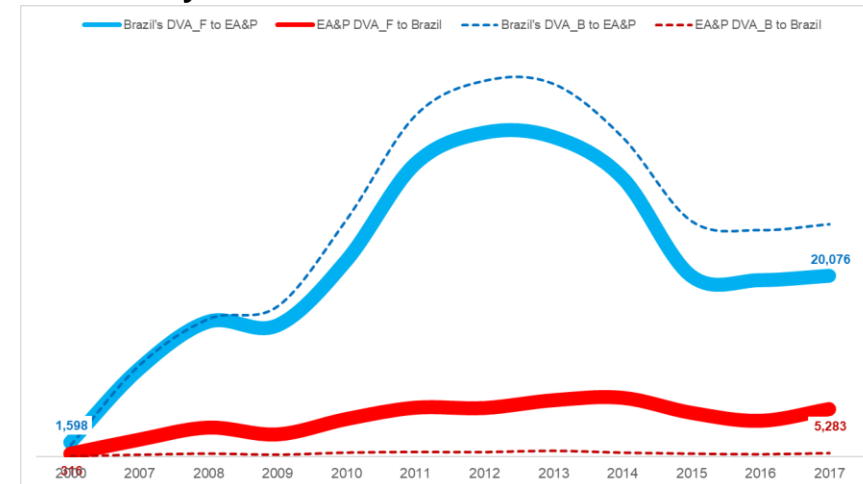


...suggesting the different positions each player occupies in global value chains...

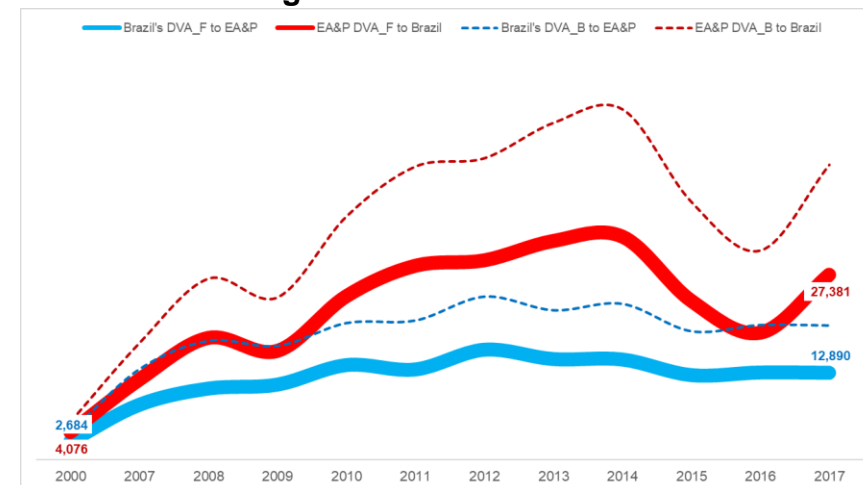
Domestic value added (F) trade between Brazil and East Asia & Pacific,  
*All sectors*



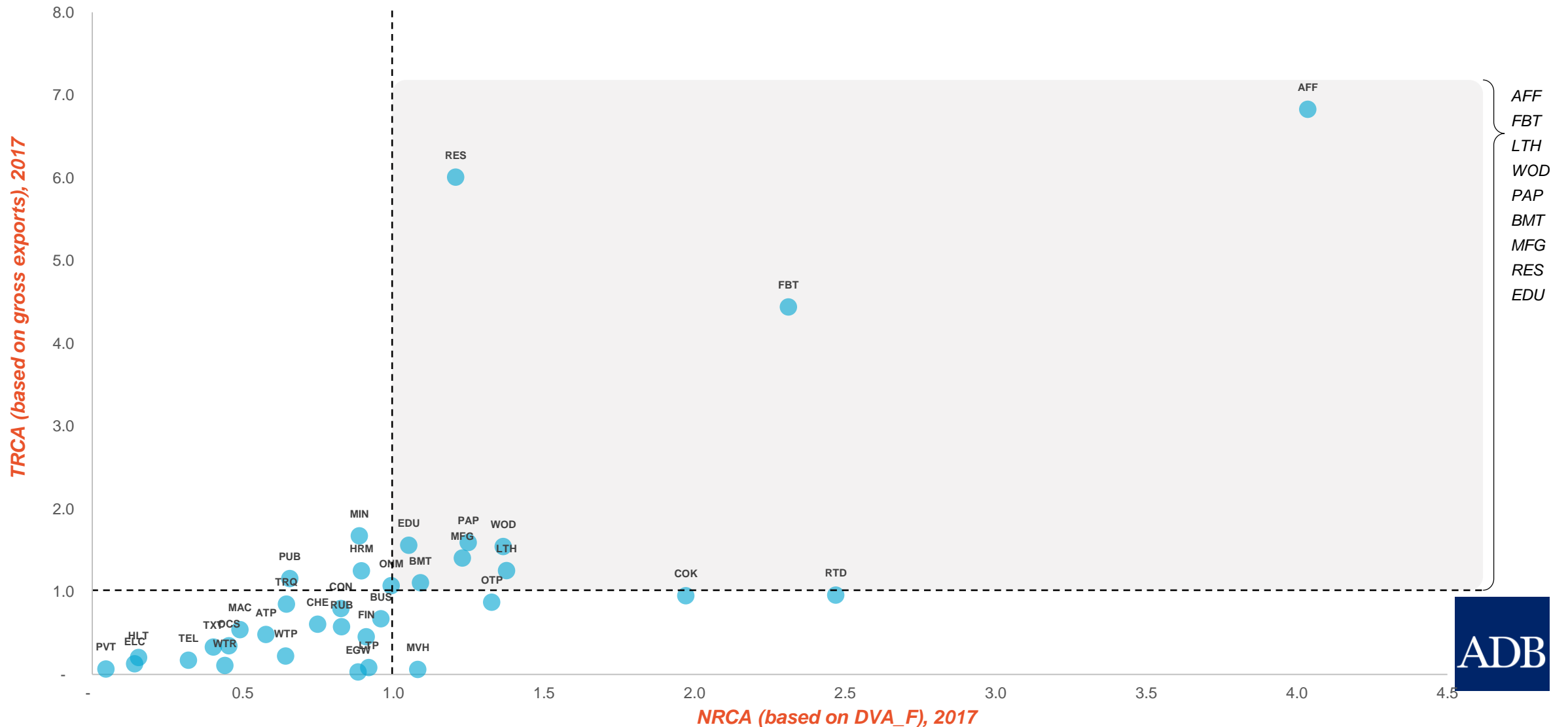
A. Primary sector



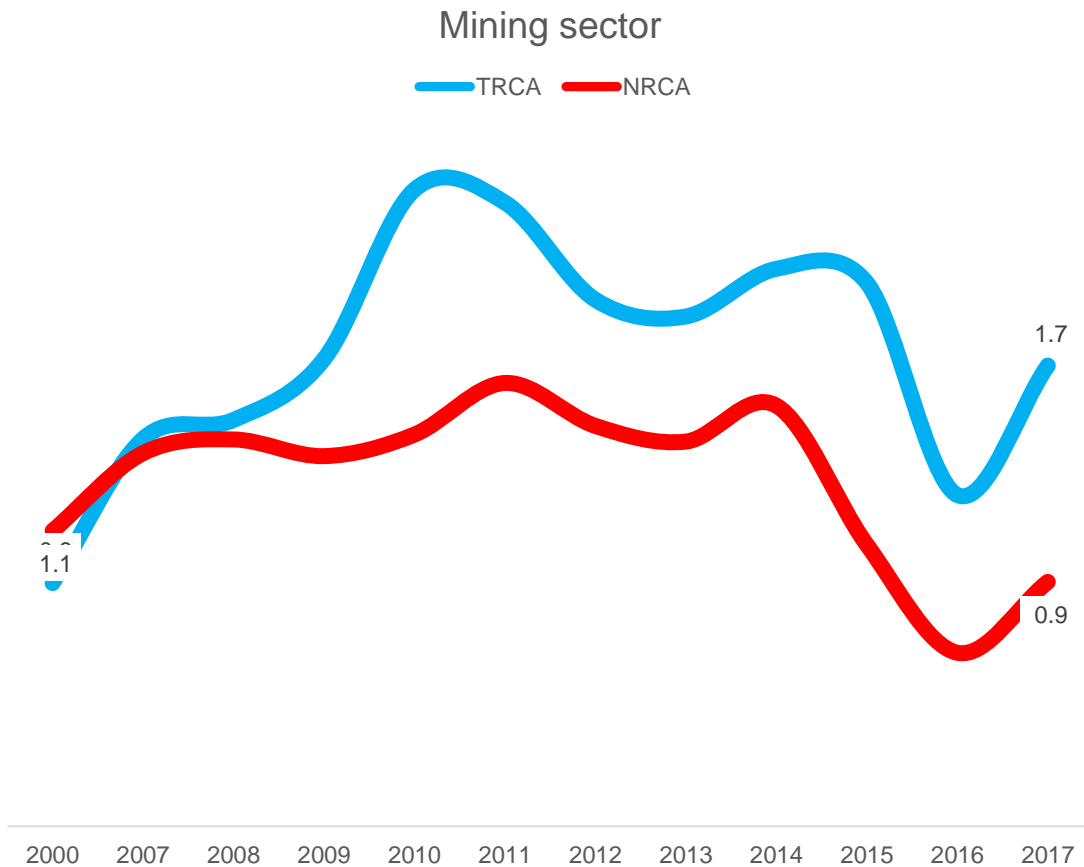
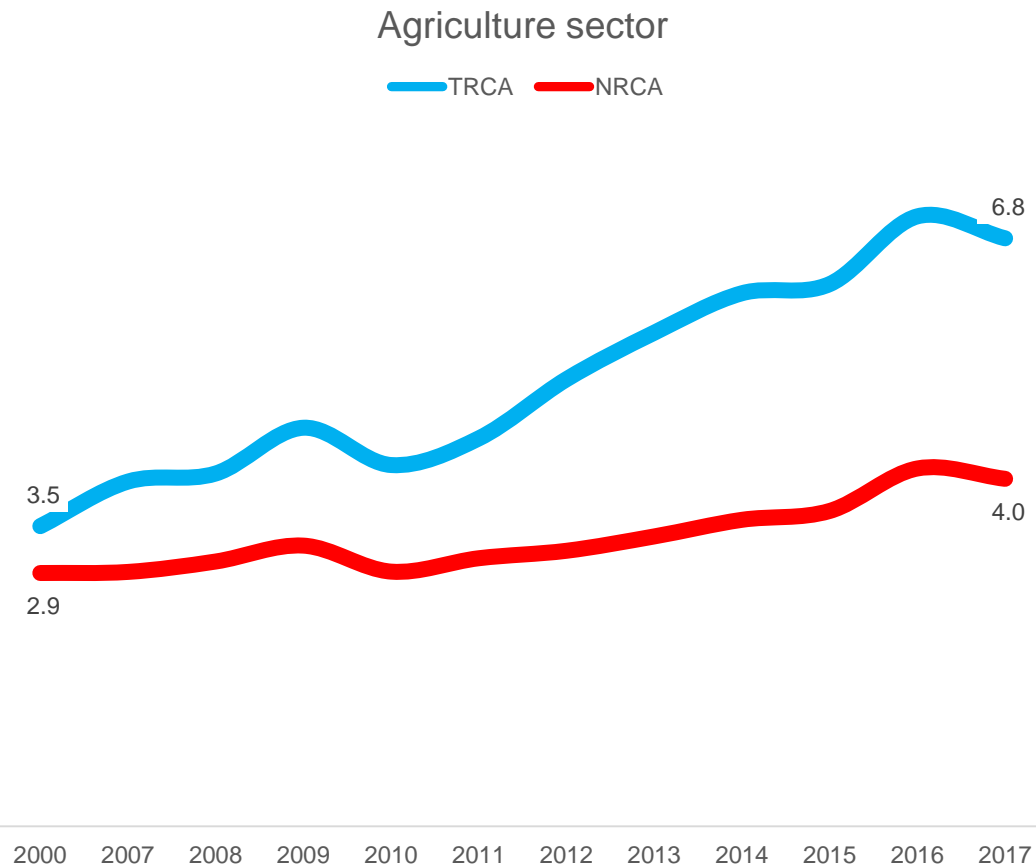
B. Manufacturing sector



# ...as well as shifts in exporting sectors' degree of revealed comparative advantages...



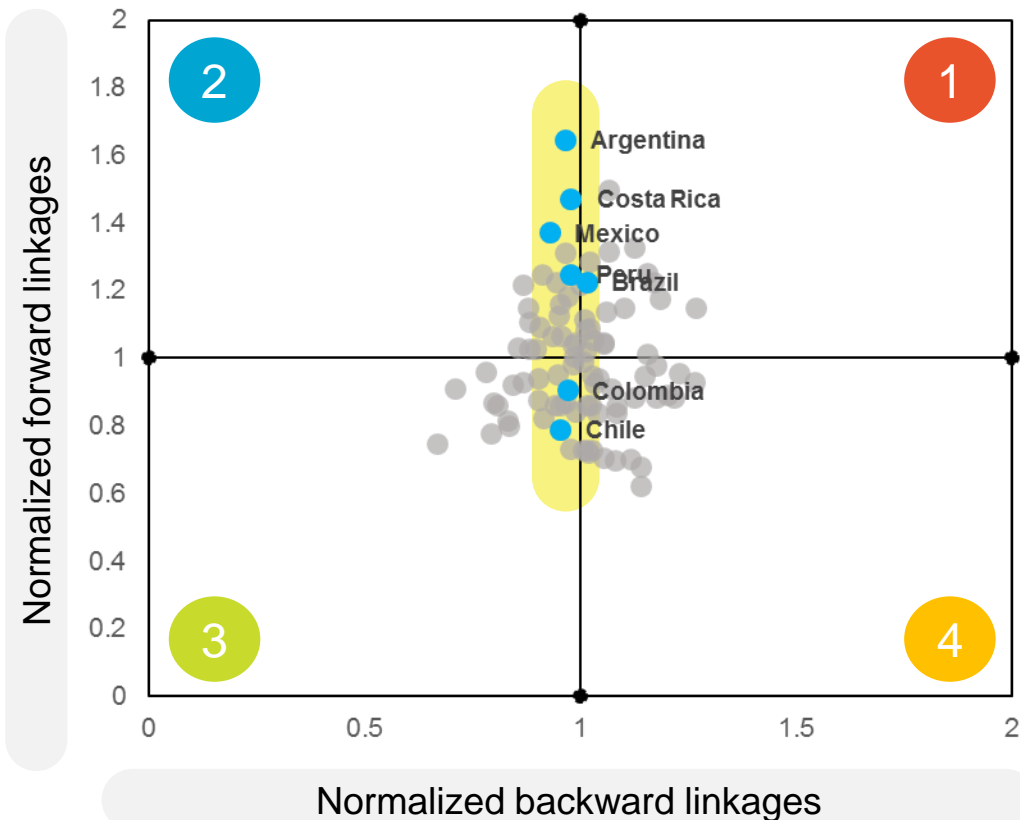
## ...which expands our current understanding of how 'traditional' sectors are driving the economy...



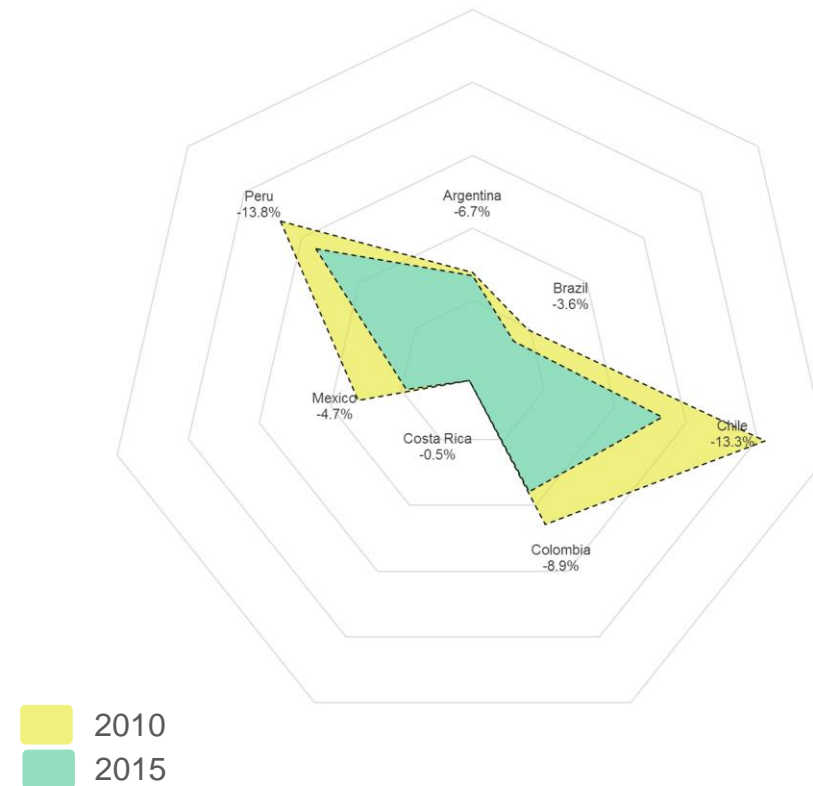
## ...including the sensitivity of the economy against shocks in certain sectors (1)...

- “Extracting” the extractive sectors would have the most impact in Chile and Peru.
- However, the impact eased from 2010 to 2015 as countries slowly diversify its economic structure.

Inter-industrial linkages of the mining sector



Impact to gross output (%), 2010 & 2015

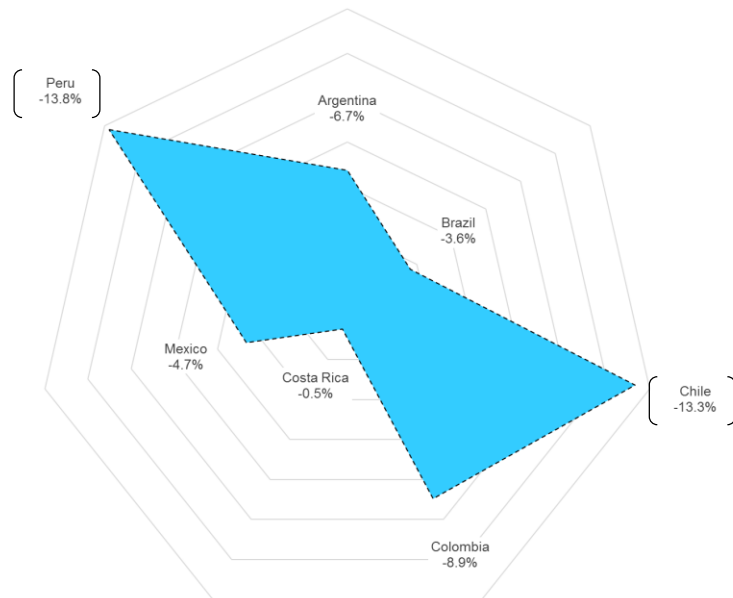


Note: 1 = key sectors (generally dependent); 2 = dependent on inter-industry demand; 3 = generally independent; 4 = dependent on inter-industry supply

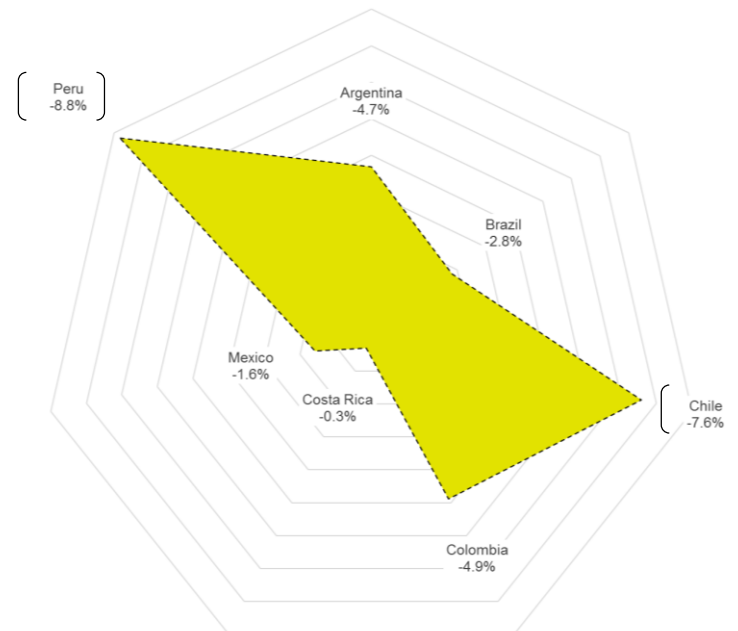
## ...including the sensitivity of the economy against shocks in certain sectors (2)...

- In this scenario, labor income would be most affected in Peru.
- However, in terms of employment, Chile would be experiencing the most impact.

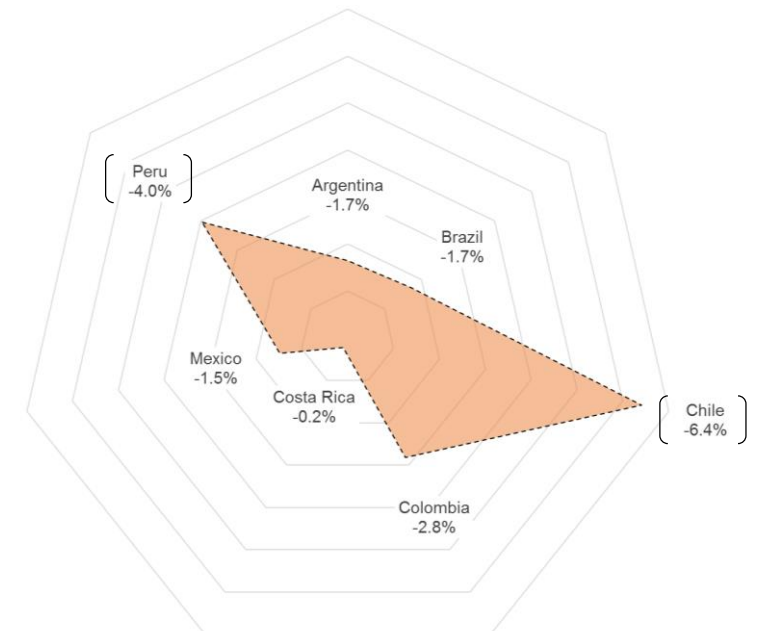
Impact to value added (%)



Impact to labor income (%)

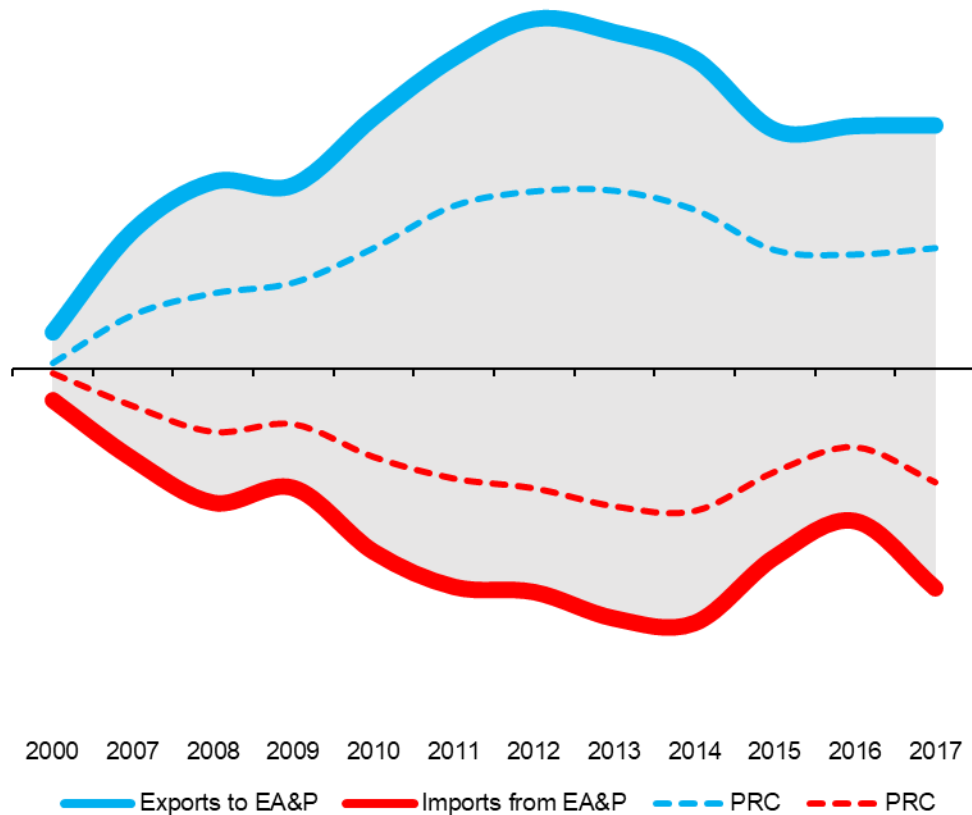


Impact to employment (%)

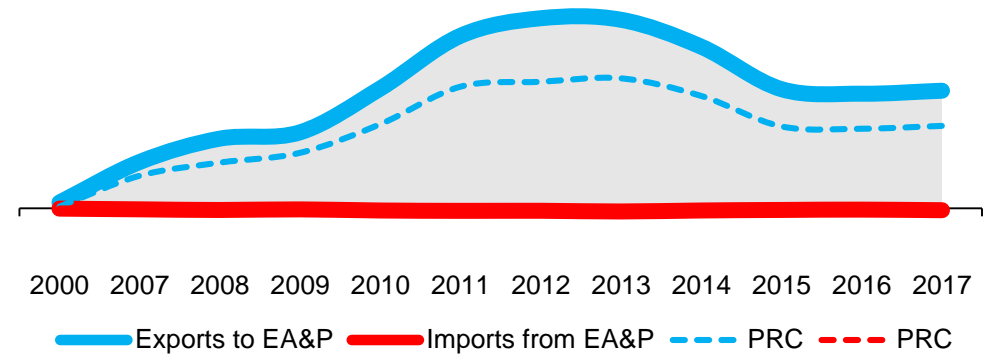


# ...pointing to a much greater need to diversify the market base for exports...

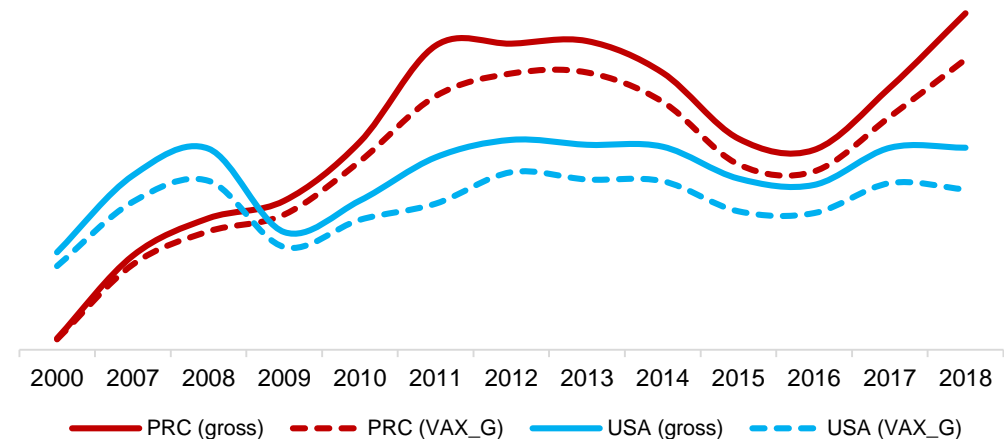
Exports and imports of domestic value added between Brazil and EA&P, All sectors



A. Exports and imports of domestic value added in primary sectors between Brazil and EA&P



B. Brazil's exports to PRC and USA (2000-2018)



## ...and to move up in the value chain ladder to ensure the sustainability of gains from international trade.

DVA (B) composition of  
Brazil's exports to East Asia & the Pacific

	DVA_FIN	DVA_INT	DVA_INTrex	RDV_B
2000	23%	56%	22%	0%
2007	19%	51%	30%	0%
2008	16%	55%	29%	0%
2009	14%	61%	25%	0%
2010	13%	61%	26%	0%
2011	12%	61%	26%	1%
2012	13%	62%	25%	0%
2013	12%	63%	24%	0%
2014	13%	62%	24%	0%
2015	15%	62%	23%	0%
2016	15%	64%	22%	0%
2017	15%	62%	22%	0%

DVA (B) composition of  
Brazil's imports from East Asia & the Pacific

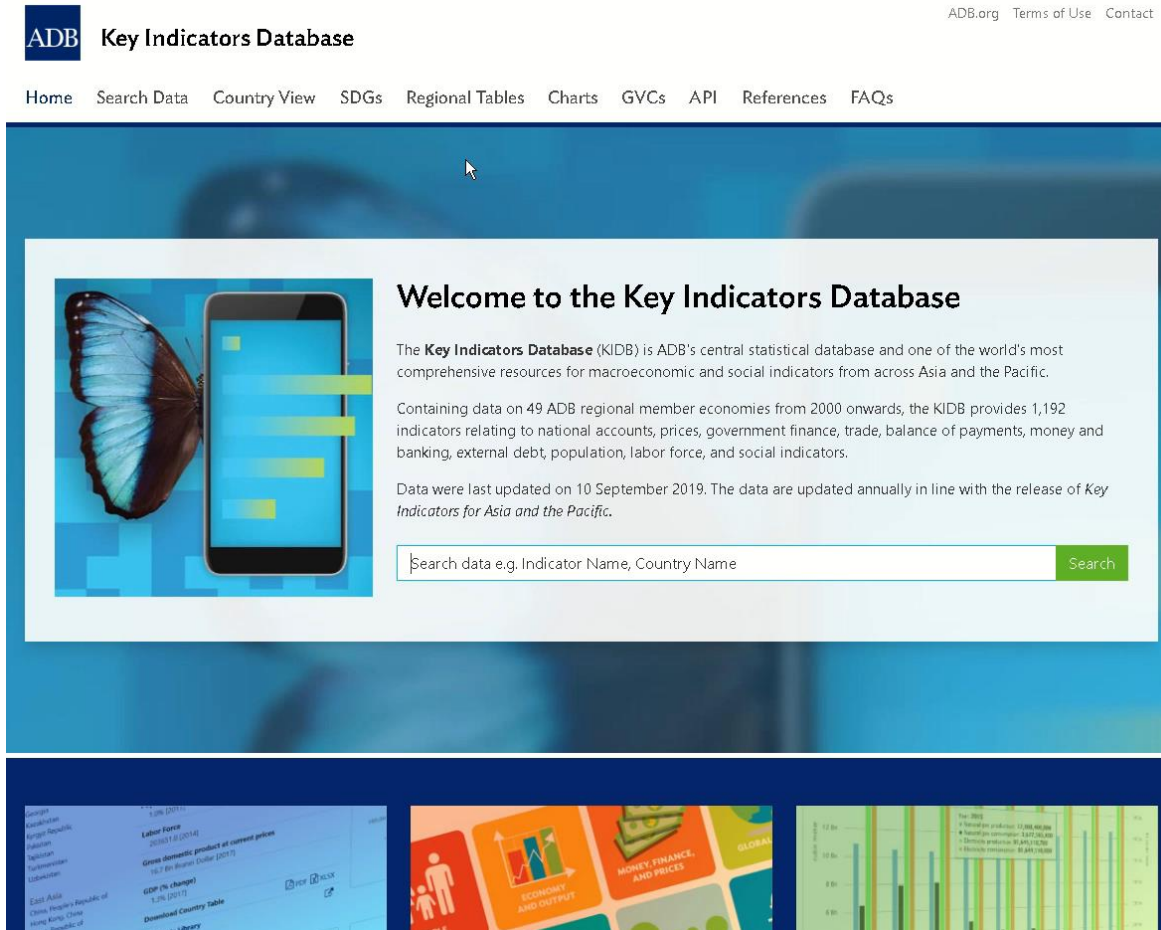
	DVA_FIN	DVA_INT	DVA_INTrex	RDV_B
2000	35%	55%	10%	0%
2007	38%	50%	11%	0%
2008	39%	50%	11%	0%
2009	41%	50%	8%	0%
2010	42%	49%	8%	0%
2011	43%	49%	8%	0%
2012	42%	49%	8%	1%
2013	41%	50%	9%	1%
2014	40%	51%	9%	1%
2015	37%	52%	10%	1%
2016	34%	54%	12%	1%
2017	38%	52%	9%	1%

# Data helps contextualize trade in the GVC world...

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**ADB Key Indicators Database**

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**Welcome to the Key Indicators Database**

The **Key Indicators Database** (KIDB) is ADB's central statistical database and one of the world's most comprehensive resources for macroeconomic and social indicators from across Asia and the Pacific.

Containing data on 49 ADB regional member economies from 2000 onwards, the KIDB provides 1,192 indicators relating to national accounts, prices, government finance, trade, balance of payments, money and banking, external debt, population, labor force, and social indicators.

Data were last updated on 10 September 2019. The data are updated annually in line with the release of *Key Indicators for Asia and the Pacific*.

Search data e.g. Indicator Name, Country Name

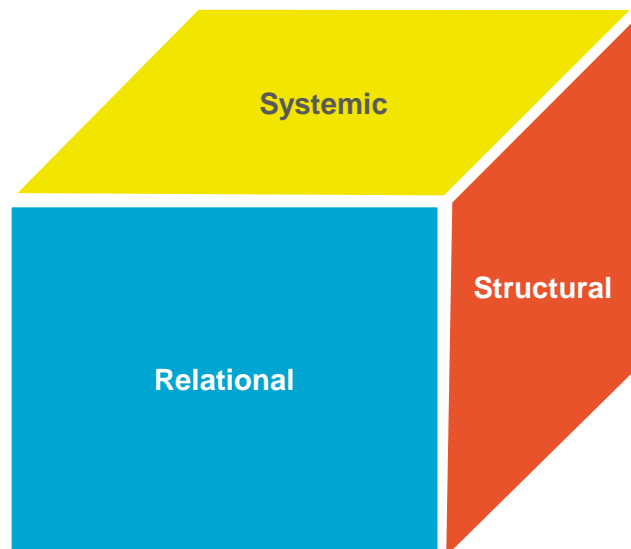
## Compendium of GVC statistics

1. Exports decomposition framework by WWZ (2017)
2. Revealed comparative advantage by WWZ (2017)
3. GVC Participation Index by WWZ (2017)
4. Trade in Value Added by Johnson & Noguera (2013)
5. GVC Income by Timmer et al (2013)
6. Average propagation length by Dietzenbacher et al (2005)
7. Upstreamness by Antras et al (2012)



# ...that aim to guide policy based on evidence...

3-dimensional characterization  
of global value chains



## Systemic

Size  
Speed

- Magnitude and momentum of trade channel
- Strength of the trade-growth nexus
- Trade promotion and facilitation strategies

## Relational

Orientation  
Length  
Position

- Direction (or mode) of linkage
- Downstream value chain : demand-side policies (upgrading, competitiveness, diversification)
- Upstream : supply-side policies (logistics, trade facilitation, infrastructure, ease of doing business)

## Structural

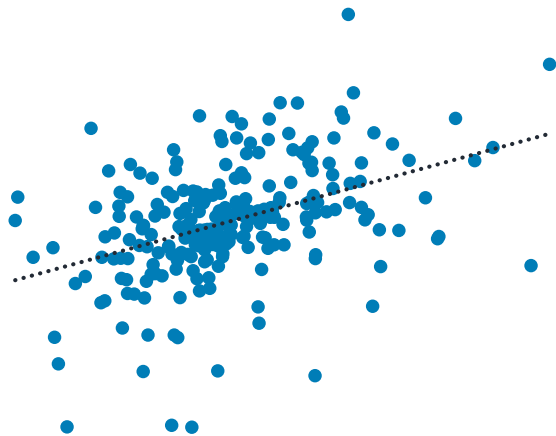
Shape  
Breadth  
Depth

- Channels of transmission (risk or growth)
- Design of preferential trade agreements
- Bilateral balance of trade

# ...in order to strengthen where gaps are prominent.

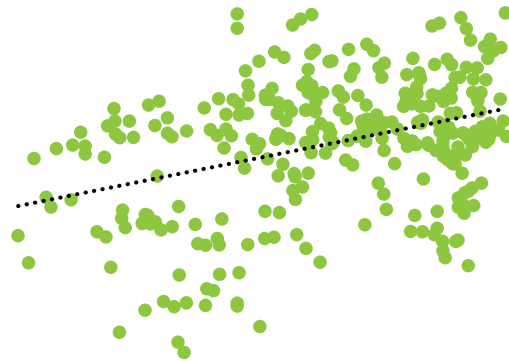
## GVC matters for growth.

VS growth (X) positively correlated with value creation growth (Y) in Developing Asia (2007-2017)



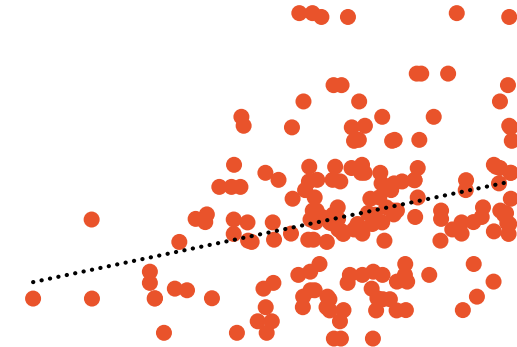
## "At-the-border" policies count

Logistics performance (X) positively correlated with vertical specialization (Y), 2007-2016



## As well as across- and behind-the-border policies

Ease of doing business (trading across borders and enforcing contracts) links with GVC intensity



# Takeaways

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- A commodity-for-manufacturing pattern remains a dominant feature of trade between Brazil and Asia. Asia's resource-constraints and comparative advantages in manufactured goods suggest that this type of exchange will endure in the future.
- Maximizing the benefits from global value chain trade means strengthening connectivity between regions.
- Deepening the understanding of GVCs are important for shifting the discussion from gross to value-added perspectives.
- However, generating critical GVC statistics are premised under quality national statistical systems. Strengthening collaboration and harmonization of methods and data sources are important first step to a clearer view of the GVC phenomenon.

**Thank you for your attention.**

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