

Services, GVCs & servicification

- Support services: the “glue” of GVCs (Low, 2013) transports, comm, logistics to link tasks across countries
- Input services: important intermediates such as R&D, engineering, design etc. At the other end: distribution, marketing
- In-house provision of services in manufacturing firms (insourcing). Difficulties to measure it.
- Services bundled with manufacturing goods (e.g. machine sold with installation service)

Scope

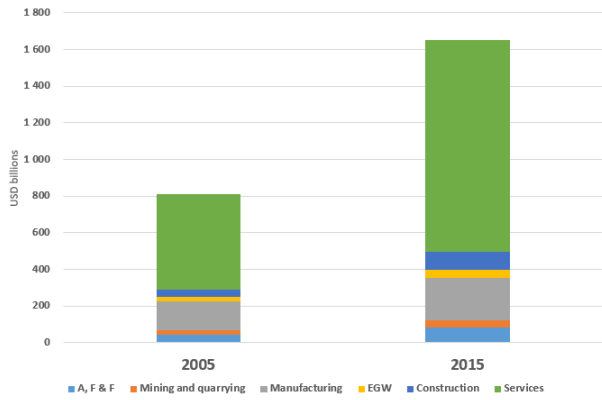
- We focus on the value-added and employment effects of GVC in Brazil.
- Which is the share of the value added generated in Brazil which is explained by foreign demand?
- How do jobs in Brazil and other LAC countries depend on foreign demand?
- How important are Latin American countries on explaining this?
- What's happening in Services?

Methodology

- Final demand (FD) can be either domestic or foreign
- In both cases, the effects of a \$ 1 increase in FD will have direct and indirect effects on many industries around the world
- We use the Input-Output framework to track value added and employment creation along the value chain
- Inter-Country Input-Output tables (OECD's TiVA)
- 34 sectors, 63 countries (7 LAC countries)
- Employment data from WIOD
- Good level of services disaggregation: 14.

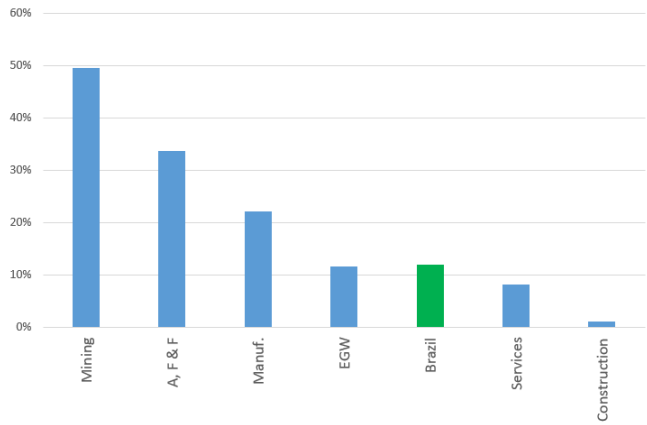
Results I - Value added

Brazil: Value added generated by final (global) demand



Source: TIVA database.

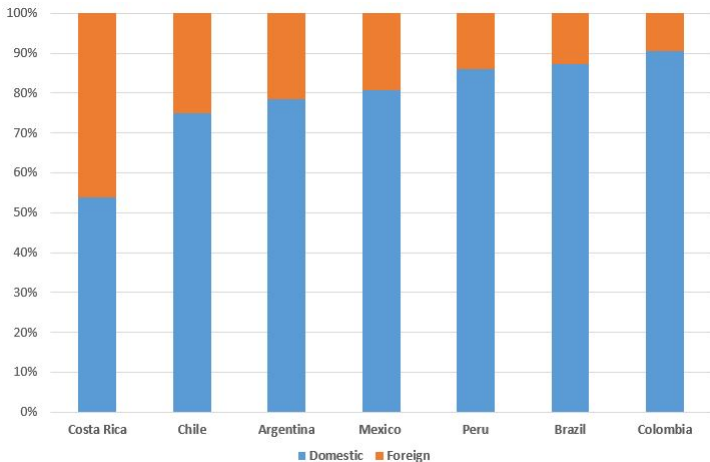
Brazil: share of value added explained by foreign final demand



Source: TIVA database.

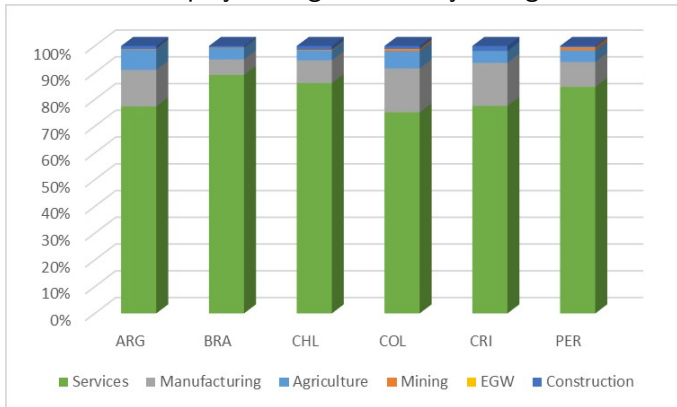
Results II - Employment

Countries' participation in GVCs



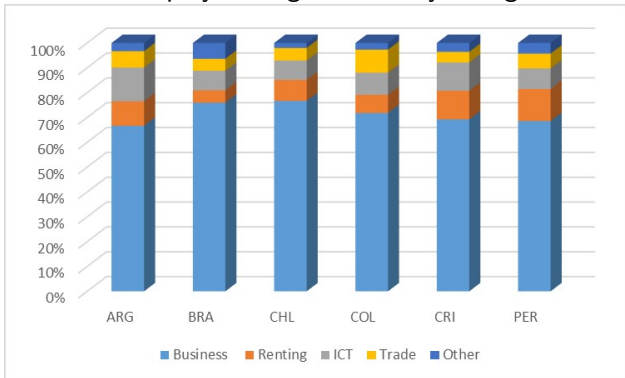
Employment generated by domestic vs foreign final demand

Distribution of employment generated by foreign final demand



Given a USD 1 spending of foreign final demand, in which sectors are jobs being created?

Inside Services: employment generated by foreign final demand



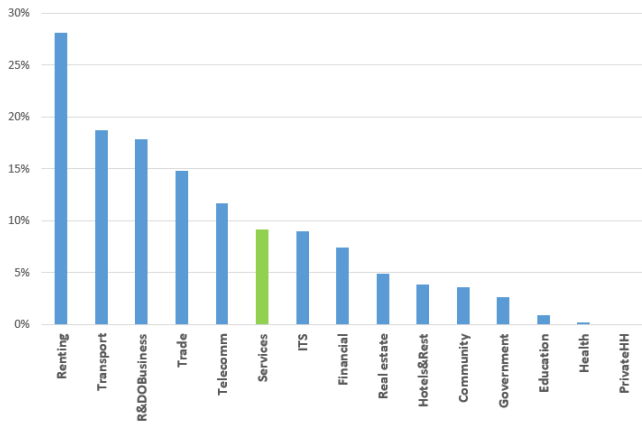
Inside Services: given a USD 1 spending of foreign final demand, in which particular Services are jobs being created?

Which sector is more globalized?

Sector	ARG	BRA	CHL	COL	CRI	PER
Agriculture	45.1%	22.3%	44.0%	18.7%	50.0%	17.6%
Mining	42.6%	46.0%	84.9%	73.4%	17.3%	81.3%
Manufacturing	36.0%	17.3 %	48.1%	26.6%	77.9%	24.6%
EGW	15.9%	10.0%	29.0%	7.3%	34.4%	15.7%
Construction	2.8%	2.4%	4.8%	0.9%	10.5%	0.8%
Services	20.9%	9.2%	25.1%	8.8%	45.8%	14.5%
Total	21.5%	12.6%	25.0%	9.4%	46.1%	14.0%

Employment generated by foreign final demand, by sectors, as a % of the employment generated by total final demand

A closer look to Services in Brazil



Employment generated by foreign final demand, by sectors, as a % of the employment generated by total final demand

How dependent is each LAC country
on some specific countries' final demand?

Table: Employment, according to origin of foreign demand

Argentina		Brazil		Chile	
País	%	País	%	País	%
ROW	19.9%	ROW	20.5%	USA	14.4%
BRA	18.0%	USA	13.2%	ROW	14.1%
USA	9.4%	CHN	10.4%	CHN	10.8%
ESP	6.6%	NLD	5.3%	JPN	9.1%
CHN	4.4%	DEU	3.8%	BRA	6.8%
Top 5	58.2%	Top 5	53.4%	Top 5	55.2%

Colombia		Costa Rica		Peru	
País	%	País	%	País	%
ROW	35.7%	USA	38.2%	USA	24.4%
USA	25.5%	ROW	12.5%	CHN	13.3%
BRA	3.1%	CHN	8.3%	JPN	7.5%
PER	3.1%	JPN	4.3%	CAN	5.5%
JPN	2.7%	DEU	3.5%	ROW	5.1%
Top 5	70.1%	Top 5	66.8%	Top 5	55.7%

How much do jobs depend
on other LAC countries' final demand?

Regional Value Chains?

Table: Employment due to LAC final demand

	ARG	BRA	CHL	COL	CRI	PER
ARG	78.5%	3.9%	0.7%	0.3%	0.0%	0.2%
BRA	0.6%	87.3%	0.1%	0.1%	0.0%	0.1%
CHL	1.0%	1.7%	75.0%	0.3%	0.0%	0.4%
COL	0.0%	0.3%	0.1%	90.6%	0.1%	0.3%
CRI	0.3%	1.4%	0.2%	0.3%	53.9%	0.1%
PER	0.1%	0.3%	0.3%	0.5%	0.0%	86.0%

% of employment (rows) generated by final demand (columns)

Further evidence on GVC & jobs

- Imports and exports favor productivity, innovation and competitiveness (firm level)
- GVC provide better jobs and improve the distribution of skills
- Both low and high productivity services benefit from increased international trade
- Female participation increases in firms related to GVCs.

In sum

- Impact of GVCs on employment allows to rank countries according to their integration to GVCs, results are compatible with other measures of openness or globalization.
- The most important sector in terms of jobs created by foreign demand is Services (60 to 90% of total jobs).
- In a world characterized by GVC, more protectionism will imply job losses around the globe and industries.
- Any trade policy impact assessment (in particular a protectionist one) should include this jobs dimension (apart from the classical direct effect on the sector which the policy is affecting).
- Economic integration of LAC countries, from a GVC perspective, is still pending.

Thank you
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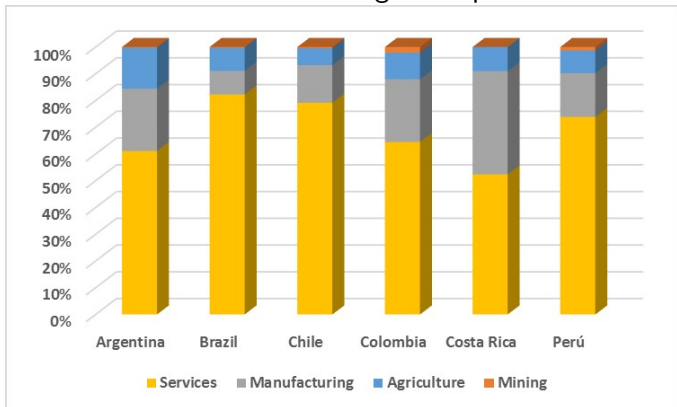


Cocora Valley, Colombia



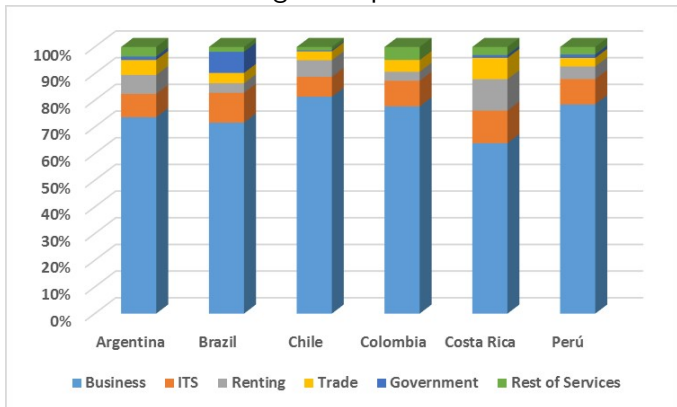
Employment embedded in gross exports

Jobs contained in gross exports



Given a USD 1 export of goods and services, in which sectors are jobs being created?

Jobs contained in gross exports - inside Services



Given a USD 1 export of goods and services, in which particular Services are jobs being created?