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South-South Trade: A New Perspective Using Value-Added Data

- **South-South trade retains less value than other regional networks**

The increase in South-South trade has been substantial both on gross terms and on a value added basis, clearly surpassing relative growth of trade flows between the South and the North or within the North. However, and notwithstanding the fast growth, the ratio of exported value added (i.e. production net of intermediate consumption) relative to gross exports is still lower for South-South relations than for trade flows with the North (60% versus more than 70%), even declining further during the last decade and recording smaller ratios across all sectors. Therefore, value retention lies ahead as a big challenge for further Southern trade integration.

- **Most Southern exporters do better relative to the North when looking at value added figures although China is a relevant exception**

The aggregate South's trade surplus holds constant relative to gross figures. However, significant changes take place on a country basis. The balance with the North improves more for commodity producers as well as for the majority of manufacturers. Three important exceptions are Vietnam, Mexico, and more importantly, China. In particular, Chinese trade surplus with the US is reduced by one third relative to gross figures.

- **On a value added basis manufacturing loses importance and commodities and services gain it**

Manufactures' trade is predominant in gross terms for South-South and South-North relations, but this share is reduced in both cases around 30pp in terms of value added. On the contrary, commodities and services increase substantially their relevance in value added terms (close to 10pp and 20pp respectively for Southern exports). As a result of these revisions, South-North specialization patterns become more evident when using value added data.

- **Value retention shapes quite a different picture of Southern and Northern trade balances**

South's trade surplus with respect to the North experiences significant revisions on an industrial level when measured in value added terms. The largest positive adjustments come from a higher surplus in agriculture commodities and a lower deficit in 'machinery and equipment', as well as from turning deficit to surplus in 'chemicals and non-metallic mineral products' and 'wholesale and retail trade; hotels and restaurants'. On the contrary, Southern countries record a larger deficit with the North in 'business services' and a much lower surplus in textile activities and 'electrical and optical equipment' (in fact, revisions to these two manufacturing industries are at the bulk of the downward adjustment in Chinese surplus with the US).

South-South trade retains less value than other regional networks

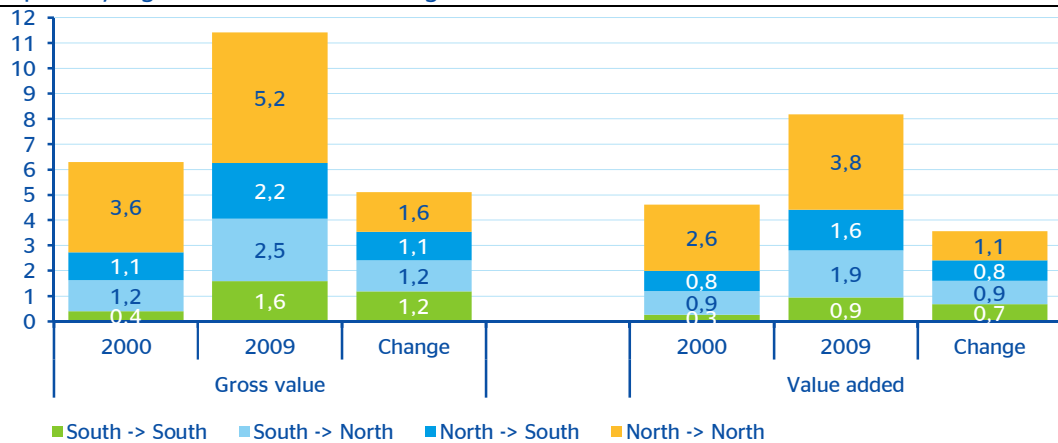
Southern countries (i.e. developing and emerging economies) have substantially increased their participation in world trade throughout the last 15 years, with a significant growth in South-South flows¹. However, some concerns arise related to the exporting sector in these economies. On the one hand, commodity exporters fear an excessive concentration of commodities in their exports. On the other hand, countries specialized in manufacturing are concerned about not being able to extract enough value from the production chain.

In this note we reassess export trends in emerging countries by comparing their value added, as defined by the OECD², with gross trade figures. In addition, we go beyond analyzing the manufacturing sector to a much broader set, which obviously includes commodities but also utilities, construction and services.

Here are some stylized facts when comparing value added and gross trade figures³:

- When using the traditional gross data, the absolute increase of South-South trade is similar to that of flows with the North (Chart 1 left) but it's lower when using value added statistics (Chart 1 right). In other words, **the rising importance of South-South trade relations during the 2000s may have been overestimated**. As a result, the amount of South-South trade, based on value added figures, **continues to be significantly lower than between the South and the North or especially within the North**.
- Lower figures for South-South trade when using value added terms are the result of **general lower value retention when Southern countries export to other Southern countries than to the North** (e.g. 35% vs. 47% of gross figures in manufacturing activities). **The ratio between value added and gross figures has even declined further during the last decade** (Chart 2).

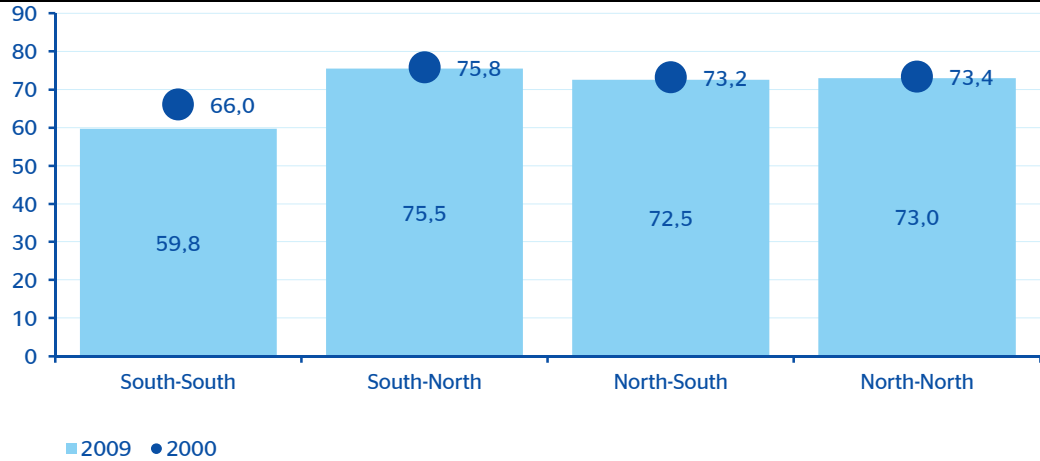
Chart 1
Exports by regional trade network on a gross value and value added basis (2000 and 2009) (tn USD)



Note: Export flows
Source: BBVA Research and OECD

1: "Asia-driven South-South trade intensifies specialization patterns in the rest of emerging regions". BBVA EAGLEs Economic Watch, BBVA Research, May 2013. www.bbva.com/BBVAResearch/KETD/fbin/mult/EWSouthSouthTrade_j_tcm348-390302.pdf?ts=2862013
 2: "Value-Added embodied in Foreign Final Domestic Demand shows how industries export value both through direct final exports and via indirect exports of intermediates through other countries to foreign final consumers (households, charities, government, and as investment). They reflect how industries (upstream in a value-chain) are connected to consumers in other countries, even where no direct trade relationship exists. The indicator illustrates therefore the full upstream impact of final demand in foreign markets to domestic output. It can most readily be interpreted as "exports of value-added". Data are available at the Trade in Value Added (TiVA) database: http://stats.oecd.org/Index.aspx?DataSetCode=TIVA_OECD_WTO
 3: The South corresponds to Chile, the Czech Republic, Estonia, Hungary, Korea, Mexico, Poland, Slovakia, Slovenia, Turkey, Argentina, Brazil, Brunei, Bulgaria, Cambodia, China, India, Indonesia, Latvia, Lithuania, Malaysia, Taiwan, the Philippines, Romania, Russia, Saudi Arabia, South Africa, Thailand and Vietnam; the North includes Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Luxemburg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States, Hong Kong and Singapore.

Chart 2
Domestic value added embodied in foreign final demand
as a % of gross exports by trade flows (2000 and 2009)



Source: BBVA Research and OECD

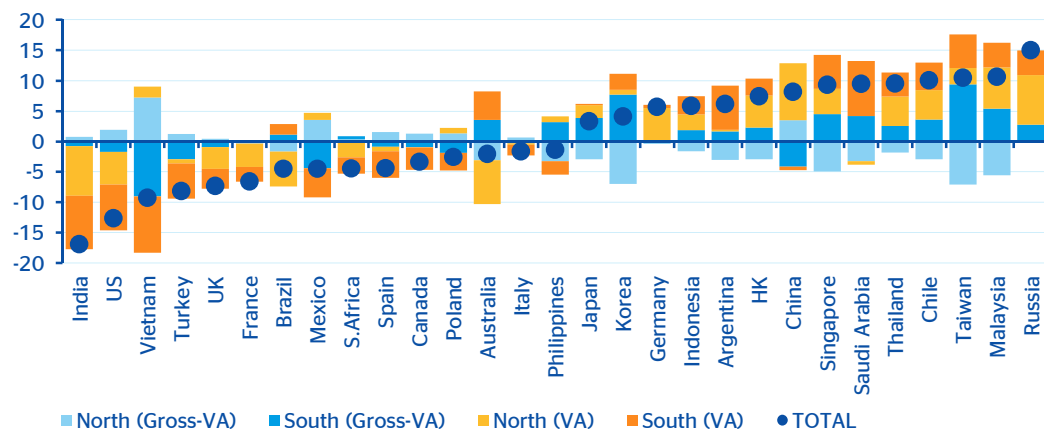
Countries' bilateral trade relations change when using value added figures

Aggregate trade balances hold constant for each country/region either measured on a gross value or a value added basis. However, revisions on trade flows have significant implications for bilateral balances accordingly to specialization patterns on both the export and import side.

Our main findings for the most relevant economies are the following (Chart 3):

- **In general, value-added adjusted trade figures of major manufacturers in the South (such as Korea, Singapore, Taiwan and Malaysia) as well as commodity producers (Australia, Saudi Arabia and Chile) point to a much lower surplus with the South while the correction is in their favor with respect to the North (higher surplus or lower deficit),**
- Some specific- but **important cases** -experience the opposite revisions: Key cases in point are **Vietnam, Mexico and China**, where value added trade figures show a lower deficit with the South and a less positive balance with respect to the North. (See Box 1 below for the case of China-US trade balance).

Chart 3
Decomposition of the trade balances by partner group and value retention
(2009) (% of total country trade)



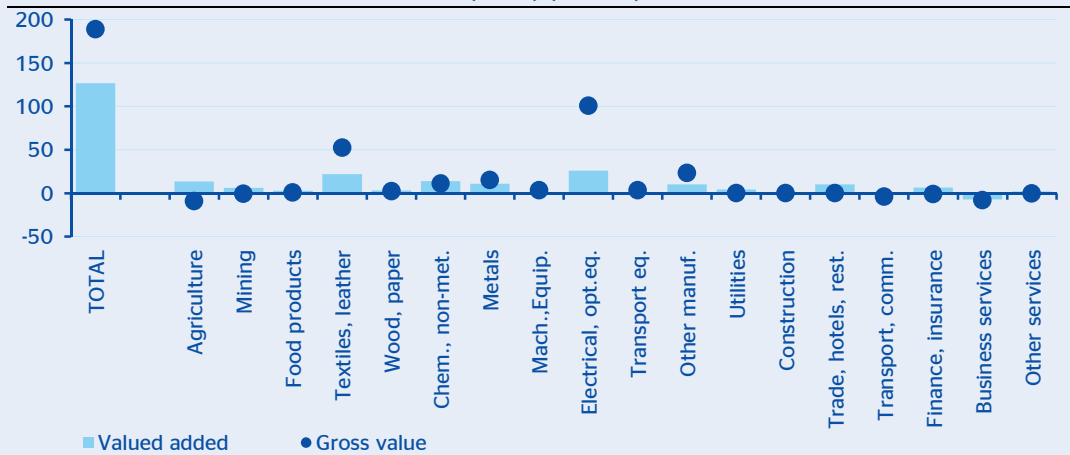
Note: 'VA' = trade balance in value added terms; 'Gross-VA' = difference between gross and VA-adjusted trade balance
Source: BBVA Research and OECD

Box 1: Effects of value added adjustments on China-US trade relations

China is a relevant exception to general better balances for Southern countries in value added terms with respect to the North. This is particularly the case for trade relations with the US (Chart 4):

- **Chinese surplus with the US is lowered by one third in value added terms** according to figures for 2009 (USD 127bn instead of 189bn). The downward adjustment for exports is higher than for imports not only in absolute but also in relative terms.
- A significant reduction of the surplus in two industries account for the bulk of the correction: **‘electrical and optical equipment’** (from USD 101bn to 26bn) and **‘textiles, textile products, leather and footwear’** (from USD 52bn to 22bn).
- On the contrary, a relatively large upward adjustment takes place for **‘agriculture, hunting, forestry and fishing’**, as **the industrial balance for China turns from deficit to surplus**.

Chart 4
Bilateral trade between China and the USA (2009) (bn USD)



Source: BBVA Research and OECD

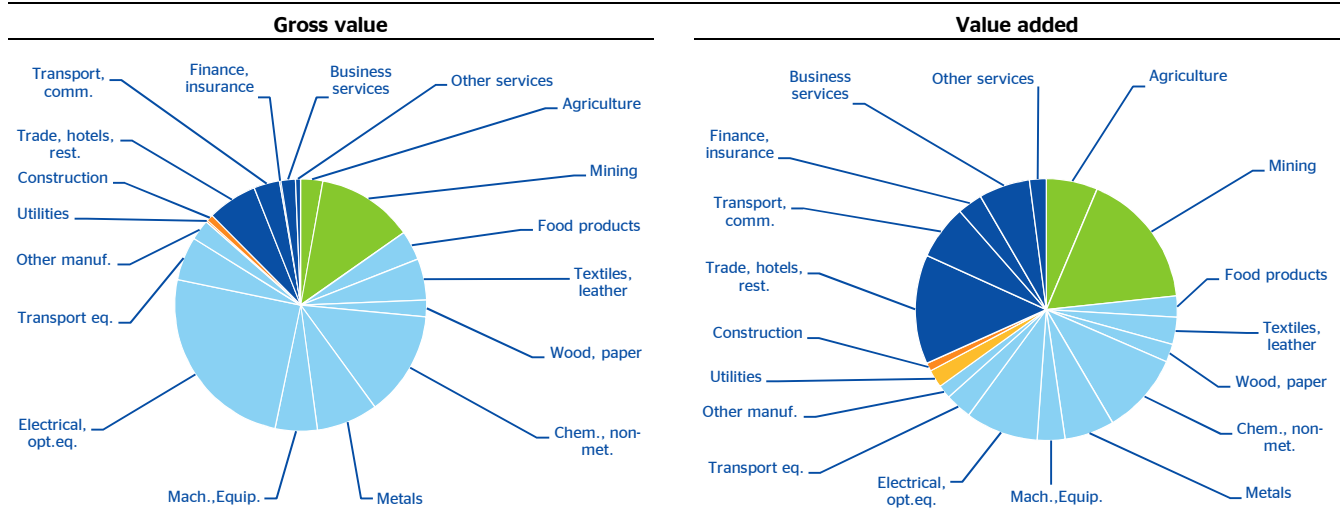
The role of commodities and services much more relevant for Southern trade on a value added basis

Aggregate value retention is determined both by general conditions of the productive structure and more specifically by the industrial composition of exports. The ratio of value added exports to gross ones is lower for manufactures, with higher potential for vertical integration and product transformation, than for the rest of activities, in which natural resources or labor play a much relevant role in production.

When looking at this issue on an industrial basis we draw the following conclusions for Southern exports (Chart 5):

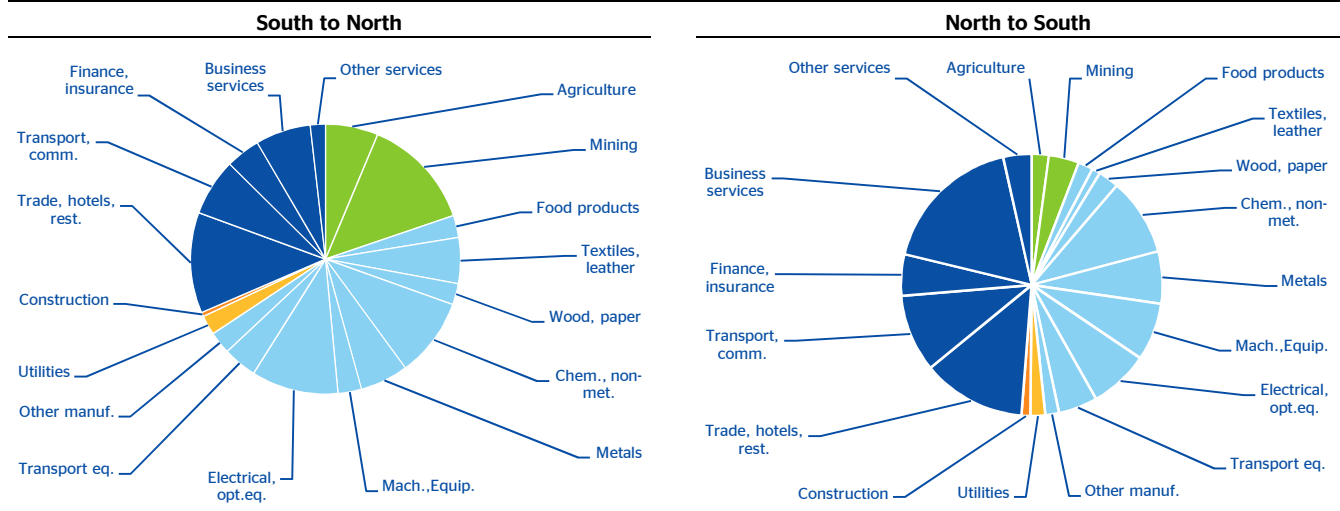
- **Manufacturing is the most important source of trade in gross terms, reaching a 71%, but its share falls to a 42% on a value added basis:**
 - On an industrial level, the largest downward adjustment is clearly recorded for 'electrical and optical equipment' (from 25% to 9%).
 - The group of 'chemicals and non-metallic mineral products' reduces its share by 3pp, while the decrease is around 2pp for 'textiles, textile products, leather and footwear', 'basic metals and fabricated metal products' and machinery and equipment industries.
- On the contrary, **basic products (commodities) and services considerably increase their relevance in value added terms**, namely from 15% to 23% and from 12% to 32%, respectively:
 - Among commodities, mining products show the largest upward revision in absolute terms (4.6pp), although the adjustment is much larger for agriculture products on a relative basis (from 2.8% to 6.3%).
 - Within the service sector; the most relevant upward revision goes for 'wholesale and retail trade; hotels and restaurants' (from 6% to 14%), although it is also quite significant for 'business services', 'transport and storage, post and telecommunication' and 'financial intermediation'.
 - Utilities also become more important in value added terms (up 2pp to 2.2%), while the share remains almost constant at negligible levels for construction (below 1% both before and after adjustments).

Chart 5
South-South trade on a gross value and value added basis by industry (2009)



Source: BBVA Research and OECD

Chart 6
South-North trade flows on a value added basis by industry (2009)



Source: BBVA Research and OECD

South-North specialization patterns more evident when using value added data

Value-added trade figures give a better sense of specialization patterns in the South and the North as they take into account all steps in the production chain. A number of conclusions can be drawn from the figures (Chart 6):

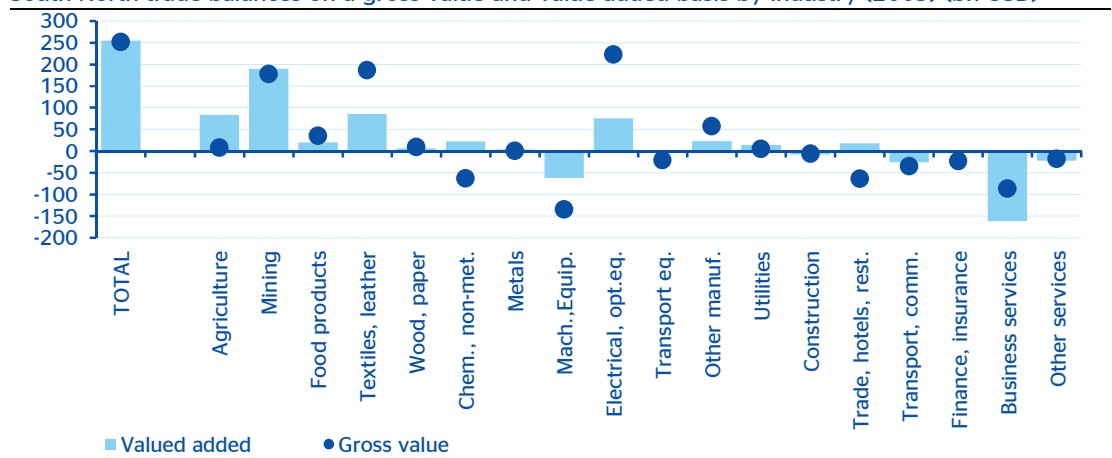
- **Exports of basic products from the South to the North become more relevant**, moving from 12% in gross terms to 20% on a value added basis; both categories (mining and agriculture products), show an upward revision around 4pp.
- **The increase of the services' share in value added terms is more significant for exports from the North to the South** (from 25% to 49%) than the other way around (from 14% to 31%). This suggests that the North still keeps a strong advantage in exporting services (even more so when adjusting for the value added).
 - The largest upward adjustment is recorded for 'business services' and wholesale and retail trade; hotels and restaurants', although the revision is much larger in the first case for North-to-South exports and the opposite order holds for South-to-North flows.
- **Downward revisions on the contribution of manufacturing activities in value added terms are pretty similar** for both directions of South-North trade relations (close to -30pp). However, there are some relevant industrial differences mainly conditional on specialization patterns:
 - The absolute adjustment is larger for 'textiles, textile products, leather and footwear' and 'electrical and optical equipment' in the case of exports from the South to the North.
 - The largest revision in the opposition direction is recorded for machinery and equipment activities and 'chemicals and non-metallic mineral products' (significantly larger in the second case not only in absolute but also in relative terms).

Industrial value retention shapes a different picture on South-North trade relations

Despite holding constant with respect to gross figures, **the South's trade surplus with respect to the North experiences relevant redistribution effects on an industrial level when measured on a value added basis** (Chart 7):

- The most relevant positive adjustments are the following:
 - The surplus significantly increases for 'agriculture, hunting, forestry and fishing', while it's somewhat larger for 'mining and quarrying' and utilities.
 - The deficit is reduced for 'machinery and equipment' and 'transport equipment', as well as for 'financial intermediation' services.
 - The deficit turns to surplus for 'chemicals and non-metallic mineral products' and 'wholesale and retail trade; hotels and restaurants'.
- In the opposite direction, these are the most significant negative revisions:
 - The deficit is much larger for 'business services'.
 - The surplus is substantially lowered for 'textiles, textile products, leather and footwear and for 'electrical and optical equipment'.
 - The positive balance is also smaller for 'food products, beverages and tobacco' and miscellaneous manufacturing industries.

Chart 7
South-North trade balances on a gross value and value added basis by industry (2009) (bn USD)



Source: BBVA Research and OECD

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